KOLEJ POLY-TECH MARA

KEMENTERIAN KEMAJUAN DESA DAN WILAYAH

MARA CORPORATION GROUP OF COMPANIES

UPTM

SWAPEN 4.0

SEMINAR WACANA PENDIDIKAN 2024

PERINGKAT ANTARABANGSA

Mengintegrasikan Teknologi Kecerdasan Buatan *Artificial Intelligence* (AI) Sebagai Solusi Pendidikan

14 NOVEMBER 2024
HOTEL RAIA, ALOR SETAR

UNIT PENERBITAN DAN PENYELIDIKAN
KOLEJ POLY-TECH MARA ALOR SETAR

RAKAN STRATEGIK

SWAPEN 4.0

UNIT PENERBITAN DAN PENYELIDIKAN

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KANDUNGAN

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Seuntai Kata

YANG BERBAHAGIA ENCIK RADZUAN BIN RAZALI
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KOLEJ POLY-TECH MARA

Assalammualaikum Warahmatullahi Taala Wabarakatuh dan Salam Sejahtera.

Alhamdulillah, setinggi-tinggi kesyukuran kita panjatkan kepada Ilahi kerana dengan limpah dan kurnia-Nya, Seminar Wacana Pendidikan (SWAPEN 4.0) yang bertemakan Mengintegrasikan Teknologi Kecerdasan Buatan *Artificial Intelligence* (AI) Sebagai Solusi Pendidikan dapat dilangsungkan dengan jayanya di KPTM Alor Setar pada tahun ini. Komitmen KPTM Alor Setar dalam menjayakan SWAPEN 4.0 ini amatlah dihargai, lebih lebih lagi ketika kita berada dalam era revolusi teknologi yang pesat berkembang.
Penggunaan AI dalam pendidikan kini bukan lagi satu pilihan tetapi keperluan untuk memastikan kita selari dengan perubahan global. AI berperanan sebagai alat yang bukan sahaja memudahkan proses pengajaran dan pembelajaran, tetapi juga meningkatkan daya saing pelajar kita dalam menghadapi cabaran dunia yang semakin kompleks.

Saya ingin menzahirkan rasa penghargaan kepada setiap pihak di KPTM Alor Setar yang telah memainkan peranan penting dalam usaha untuk memanfaatkan teknologi AI ini. Melalui keterlibatan semua pihak, termasuk para pensyarah, pelajar, dan staf sokongan, AI dapat diterapkan secara menyeluruh dalam proses pembelajaran dan penyelidikan di kampus kita. Saya percaya, dengan usaha yang konsisten, kita mampu menjadi peneraju dalam pendidikan berasaskan teknologi di peringkat nasional. Akhir sekali, sekalung tahniah dan syabas saya ucapkan kepada Unit Penyelidikan dan Penerbitan KPTM Alor Setar atas usaha gigih dan komitmen yang tinggi dalam merancang SWAPEN 4.0. Saya berharap semoga inisiatif ini dapat terus diteruskan dari semasa ke semasa agar AI menjadi sebahagian pengintegrasian dalam sistem pendidikan kita, demi memastikan generasi masa depan yang berdaya saing dan berpengetahuan tinggi.

Sekian, terima kasih.

Sekilas Bicara

YANG BERUSAHA CIK NOR ASMAH BINTI SAID
PENGARAH
KPTM ALOR SETAR

Assalammualaikum Warahmatullahi Taala Wabarakatuh dan Salam Sejahtera.

Alhamdulillah, setinggi-tinggi kesyukuran dipanjatkan ke hadrat Ilahi kerana dengan limpah rahmat dan kasih sayang-Nya, KPTM Alor Setar sekali lagi dapat menganjurkan Seminar Wacana Pendidikan (SWAPEN 4.0) dengan tema "Mengintegrasikan Teknologi Kecerdasan Buatan *Artificial Intelligence* (AI) Sebagai Solusi Pendidikan". Tema ini diharap dapat membuka minda dan peluang bagi pendidik dan penyelidik untuk memanfaatkan teknologi AI dalam memperkasa sistem pendidikan kita.

Sekalung tahniah dan syabas diucapkan kepada barisan ahli Jawatankuasa SWAPEN 4.0 atas usaha gigih dan penuh komitmen dalam merancang dan menjayakan seminar ini. Dengan kejayaan penganjuran SWAPEN 4.0, KPTM Alor Setar menjadikan acara ini sebagai acara wajib dalam usaha memperkasakan bidang pendidikan agar selari dengan perkembangan pesat teknologi. Diharapkan, program ini juga dapat memberi sokongan yang berkesan terhadap proses pengajaran dan pembelajaran di institusiinstitusi pendidikan yang lain.

Saya juga ingin merakamkan ucapan tahniah kepada para pembentang dan peserta dari pelbagai institusi pengajian tinggi yang telah menunjukkan komitmen jitu dalam memberikan sumbangan ilmiah kepada dunia pendidikan. Penglibatan anda semua dalam SWAPEN 4.0 menunjukkan betapa tingginya semangat dan dedikasi dalam usaha memajukan pendidikan negara. Akhir kata, saya berharap usaha dalam penghasilan penerbitan ilmiah seperti ini tidak terhenti di sini. Semoga ia akan terus berkembang dan berterusan bagi membantu perkembangan dunia pendidikan kita. Saya percaya warga KPTM Alor Setar akan terus bersemangat dan memberikan kerjasama yang tinggi agar usaha ini dapat direalisasikan lagi pada masa akan datang.

Sekian, terima kasih.

PENGENALAN

Era pendidikan global kini, tuntutan perkongsian ilmu dari pelbagai bidang pengajian amatlah dituntut agar ianya selari dengan perkembangan pendidikan kontemporari. Oleh demikian, Unit Penerbitan dan Penyelidikan KPTM Alor Setar mengambil inisiatif untuk mengadakan satu wacana pendidikan bagi membincangkan cabaran-cabaran dalam menghadapi isu-isu pendidikan ini.

Pengalaman mengendalikan tiga edisi SWAPEN yang lalu telah memberi rangsangan kepada Unit Penerbitan dan Penyelidikan KPTM Alor Setar untuk menganjurkan SWAPEN 4.0 hasil dari maklum balas yang baik daripada peserta dan pembentang jemputan.

Penganjuran pada kali ini akan membuka ruang buat para pensyarah KPTMAS amnya untuk berkongsi dan membentangkan hasil penulisan atau kajian yang telah dan sedang dikaji di samping ianya juga dibuka kepada peserta-peserta dari Institut Pendidikan Tinggi Luar. Pembentangan dari pensyarah KPTMAS akan diadakan secara fizikal, manakala pembentangan dari institusi luar secara rakaman atau atas talian.

"Mempertingkat Kebolehsuaian Guru dalam Era Kecerdasan Buatan (AI) dengan Menganalisis Faktor yang Mempengaruhi Tingkah Laku Kewarganegaraan Organisasi terhadap Penerimaan Paradigma Pendidikan Baru"

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ABSTRAK

Integrasi Kecerdasan Buatan (AI) dalam pendidikan menawarkan peluang transformatif untuk mempertingkat pembelajaran peribadi, mengautomasikan tugas-tugas pentadbiran, dan menyediakan wawasan berasaskan data. Walau bagaimanapun, pelaksanaan AI yang berkesan memerlukan para guru untuk menunjukkan tahap Tingkah Laku Kewarganegaraan Organisasi (OCB) yang tinggi. Hubungan tidak formal antara Tingkah Laku Kewarganegaraan Organisasi (OCB) guru, persekitaran sekolah, tahap kecekapan, pemberdayaan dan komitmen pasukan belum mendapat perhatian empirikal yang banyak. Selain itu, pengaruh aspek tertentu dalam kepuasan kerja dan komitmen organisasi terhadap manfaat keseluruhan komuniti guru jarang diberi perhatian. Oleh itu, tujuan kajian ini adalah untuk menentukan sama ada nilai-nilai ini mempunyai kesan nyata terhadap OCB dan bagaimana ia mempengaruhi organisasi dalam kalangan guru di sekolah di Alor Setar. Kajian ini penting kerana ia melihat kepada OCB guru dan bagaimana mereka menyumbang kepada sektor pendidikan, yang semakin penting di Malaysia. Untuk mengetahui bagaimana interaksi ini mempengaruhi OCB guru, hipotesis yang berkaitan telah ditubuhkan, diuji, dan disiasat lebih lanjut. Dalam kajian ini, 400 orang guru sekolah rendah dari Alor Setar terlibat dalam melengkapkan soal selidik. Keputusan menunjukkan bahawa persekitaran sekolah, tahap kecekapan, pemberdayaan, dan komitmen pasukan mempengaruhi OCB guru secara signifikan. Penemuan ini disahkan oleh analisis korelasi Pearson.

KATA KUNCI: *tingkah laku kewarganegaraan organisasi guru, persekitaran sekolah, tahap kecekapan, pemberdayaan dan komitmen, integrasi kecerdasan buatan (AI) dalam Pendidikan*

1 PENGENALAN

Integrasi Kecerdasan Buatan (AI) dalam pendidikan telah muncul sebagai kemajuan penting yang secara signifikan mengubah landskap pengajaran dan pembelajaran. Teknologi AI menawarkan alat kepada pendidik yang meningkatkan pembelajaran peribadi, mengautomasikan tugas pentadbiran, dan menyediakan wawasan berasaskan data, dengan itu memperkayakan pengalaman pendidikan secara keseluruhan (Holmes et al., 2019; Luckin et al., 2016). Ketika pendidik mengharungi transformasi yang dipacu oleh AI ini, mereka menghadapi peluang dan cabaran. Potensi AI untuk menyesuaikan kandungan pendidikan mengikut keperluan individu pelajar boleh membawa kepada hasil pembelajaran yang lebih efektif. Walau bagaimanapun, peralihan ini juga memerlukan penyesuaian yang signifikan daripada guru, yang mesti memperoleh kecekapan digital baru dan menyesuaikan diri dengan landskap teknologi yang berkembang pesat (Zawacki-Richter et al., 2019).

Meskipun terdapat manfaat, ramai guru menghadapi cabaran dalam peralihan kepada paradigma pendidikan baru, termasuk rintangan terhadap perubahan, kekurangan literasi digital, dan struktur sokongan yang tidak mencukupi (Howard & Mozejko, 2015). Kejayaan peralihan ini sebahagian besarnya bergantung kepada kesediaan guru untuk terlibat dengan teknologi dan kaedah pedagogi baru. Penglibatan ini sering tercermin dalam Tingkah Laku Kewarganegaraan Organisasi (OCB) mereka iaitu tingkah laku sukarela dan di luar peranan yang menyumbang kepada iklim organisasi dan kejayaan keseluruhan (Somech & Ron, 2007). Tahap OCB yang tinggi dalam kalangan guru, seperti membantu rakan sekerja, mengambil tanggungjawab tambahan, dan menerima metodologi pengajaran baru, adalah penting untuk memudahkan penyesuaian yang lancar kepada AI dan inovasi lain dalam pendidikan (Bogler & Somech, 2004).

Untuk memastikan pelaksanaan AI berkesan, adalah penting bahawa majoriti guru menunjukkan tahap Tingkah Laku Kewarganegaraan Organisasi (OCB) yang tinggi. Artikel ini bertujuan untuk menyiasat dan membincangkan faktor-faktor yang mempengaruhi OCB guru, serta memberikan wawasan tentang apa yang mendorong atau menghalang tingkah laku ini. Dengan memahami faktor-faktor asas yang mempengaruhi OCB guru, pendidik, pentadbir, dan pembuat dasar dapat membangunkan strategi untuk memupuk budaya organisasi yang menyokong dan menggalakkan tingkah laku positif ini.

2 OBJEKTIF KAJIAN

Objektif Penyelidikan Kajian ini bertujuan untuk menyiasat hubungan antara tingkah laku kewarganegaraan organisasi (OCB) guru dengan pelbagai parameter. Kajian ini secara khusus bertujuan untuk menentukan sama ada terdapat hubungan antara OCB guru dengan persekitaran sekolah, OCB guru dengan tahap kecekapan, OCB guru dengan pemberdayaan, dan OCB guru dengan komitmen pasukan. Matlamat penyelidikan ini adalah untuk memberikan pemahaman yang menyeluruh tentang bagaimana faktor-faktor ini mempengaruhi OCB guru dengan memeriksa korelasi-korelasi ini.

Objektif penyelidikan kajian ini adalah:

- Menyiasat hubungan antara persekitaran sekolah dan OCB guru.
- Mempelajari hubungan antara tahap kecekapan dan OCB guru.
- Menentukan hubungan antara pemberdayaan dan OCB guru.
- Menilai hubungan antara komitmen pasukan dan OCB guru.

3 TINJAUAN LITERATUR

Persekitaran Sekolah yang Mesra dan OCB Guru

Tindakan sukarela seperti eco-inisiatif melibatkan cadangan untuk meningkatkan prestasi dan amalan suasana persekitaran (Paillé dan Boiral, 2013). Dalam konteks sekolah, guru boleh melibatkan diri dalam OCB dengan pelbagai cara. Untuk memperbaiki prestasi suasana persekitaran positif di sekolah, mereka boleh, sebagai contoh, mencipta, mengesyorkan, dan menyebarkan amalan baru (Boiral & Paillé, 2013), cuba mengurangkan pembaziran dan menggunakan semula kertas (Lee et al., 1995), atau menjalankan aktiviti khusus di sekolah (Daily et al., 2009). Tingkah laku pengguna yang peka terhadap suasana persekitaran lebih lazim dalam kalangan mereka yang mempunyai tahap keprihatinan kepada suasana persekitaran yang tinggi (Czap & Czap, 2010). Kebanyakan penyelidikan yang menilai bagaimana keprihatinan terhadap suasana persekitaran secara langsung mempengaruhi tingkah laku yang mesra alam menunjukkan bahawa terdapat korelasi lemah hingga sederhana antara ciri-ciri ini. Menurut kajian-kajian terdahulu, terdapat sedikit korelasi antara tingkah laku dan keramahan suasana persekitaran (Albayrak et al., 2013).

Walau bagaimanapun, Daily et al. (2009) berpendapat bahawa orang yang sangat prihatin terhadap suasana persekitaran yang positif mungkin akan melaksanakan OCB iaitu amalan mesra suasana persekitaran di sekolah mereka. Orang yang sangat prihatin terhadap suasana persekitaran yang positif lebih cenderung untuk terlibat dalam OCB berbanding dengan orang yang kurang prihatin terhadap suasana persekitaran (Daily et al., 2009).

Tahap Kecekapan dan OCB Guru

Pengaruh positif besar terhadap mobilisasi tingkah laku sukarela dapat diperhatikan, menurut Paré dan Tremblay (2000), apabila seseorang individu merasakan bahawa mereka mempunyai tahap autonomi dan pengaruh yang besar terhadap kerja mereka, serta potensi untuk memanfaatkan kecekapan mereka. Tremblay juga mencatatkan bahawa apabila pekerja mempunyai tahap keterikatan afektif yang tinggi terhadap syarikat, tingkah laku sukarela mereka lebih tergerak dengan kuat (Patil & Ramanjaneyalu, 2018). Penemuan kajian Tremblay menunjukkan bahawa mobilisasi tingkah laku sukarela sangat dipengaruhi secara positif oleh perasaan mempunyai tahap autonomi yang tinggi, pengaruh terhadap tugas dan potensi untuk menggunakan kecekapan diri (Patil & Ramanjaneyalu, 2018). Selain itu, kajian oleh Dio (1979) menunjukkan bahawa kecekapan yang bermotivasi menghasilkan pembuatan keputusan yang lebih baik, serta peningkatan pencapaian dan kecekapan (Patil & Ramanjaneyalu, 2018). Menurut Garavan dan McGuire (2001), pemilikan kompetensi boleh mempunyai kesan yang membebaskan dan memberdayakan. Mereka berpendapat bahawa memberi pekerja tahap kawalan diri dan pengaturan diri yang signifikan akan memotivasi mereka untuk menyumbang kepada pencapaian matlamat organisasi. Selain itu, Dennison (1984), berpendapat bahawa persepsi psikologi terhadap makna, kecekapan, penentuan diri, dan impak akan terhasil daripada pemberdayaan pekerja dan seterusnya akan membawa kepada organisasi yang efektif (Lee & Koh, 2001).

Satu teknik lain untuk meningkatkan tahap usaha adalah melalui pemberdayaan dalam organisasi (Wat & Shaffer, 2005). Ia boleh diringkaskan dalam konteks organisasi sebagai: pemberdayaan, kebebasan, arahan, dan sokongan (Ma et al., 2021). Ma et al. (2021) mendakwa bahawa pemberdayaan membolehkan pekerja mempunyai fleksibiliti untuk mengambil inisiatif, menikmati mengambil risiko, memberikan idea mereka, menyelesaikan masalah secara bebas, dan menyuarakan pemikiran mereka tanpa rasa takut. Semua ini memerlukan kemahiran. Pemberdayaan boleh dilihat sebagai autonomi yang terarah. Maksudnya, pelaksanaan kebebasan mesti berlaku dalam rangka kerja misi dan arahan yang jelas; jika tidak, anarki mungkin berlaku (Wat & Shaffer, 2005). Mereka menyatakan bahawa pekerja benar-benar diberdayakan untuk memberikan sumbangan sepenuh hati kepada syarikat jika mereka mempunyai kebebasan, sokongan pengurusan, dan arahan yang jelas. Hermawan et al. (2023) menegaskan bahawa pemberdayaan pekerja tanpa kemahiran yang diperlukan tidak akan menghasilkan organisasi yang kompetitif, dan bahawa pemberdayaan adalah berdasarkan kepada pekerja yang memiliki kemahiran tersebut. Menurut pandangan berasaskan sumber syarikat, kompetensi adalah sumber yang memberikan kelebihan kompetitif kepada syarikat. Pekerja berpengetahuan yang semakin dilihat sebagai sumber paling penting syarikat memiliki kompetensi ini.

Pemberdayaan Guru dan OCB Guru

Menurut beberapa kajian dan karya ilmiah, tingkah laku organisasi guru dipengaruhi secara signifikan dan positif oleh pemberdayaan (Somech & Bogler, 2002). Tingkah laku dan sikap guru terhadap satu sama lain dan institusi pendidikan dirujuk sebagai tingkah laku organisasi (Thurlings et al., 2015). Memandangkan matlamat tingkah laku organisasi positif dalam kalangan guru adalah untuk memupuk suasana yang berfokus kepada kelestarian dan peningkatan organisasi, ia harus digalakkan dan dialu-alukan dalam semua institusi pendidikan (Cartwright & Cooper, 2014). Beberapa dimensi tingkah laku organisasi guru termasuk tingkah laku kewarganegaraan organisasi (Duke & Gansander, 1990; Taylor & Bogotch, 1994), penglibatan kerja (Hallberg & Schaufell, 2006), komitmen organisasi (Wall & Rinehart, 1998; Bogler & Somech, 2002; John & Taylor, 1999; Fu & Deshpande, 2014), dan komitmen profesional (Pfeffer,1994; Hackman & Lawler, 1971). Oleh itu, pemberdayaan guru mempunyai potensi untuk mempengaruhi tingkah laku organisasi positif dan akhirnya menyumbang dengan signifikan kepada kestabilan dan kejayaan organisasi (Bogler & Somech, 2002).

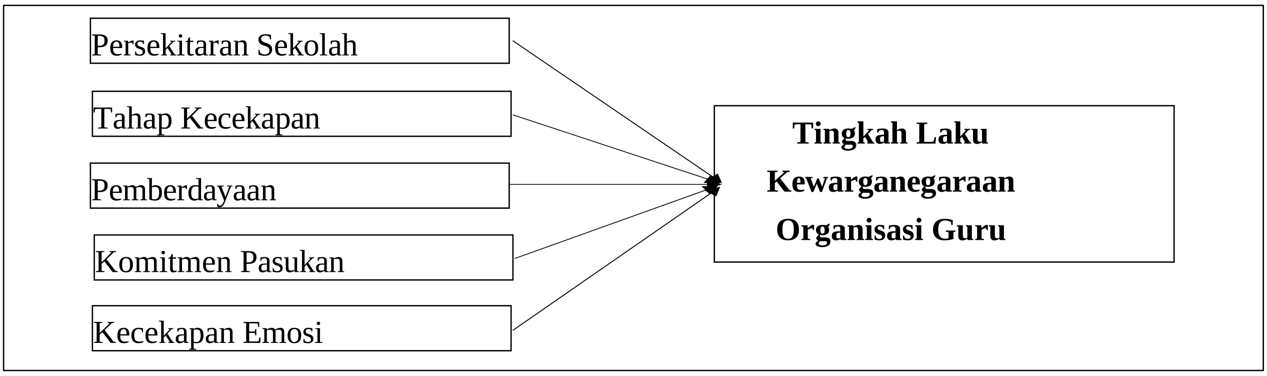
Komitmen Pasukan dan OCB Guru

Komitmen afektif dan demonstrasi tingkah laku proaktif seperti OCB telah dikaitkan dalam beberapa kajian (Foote & Tang, 2008; Mathieu & Zajac, 1990). Kim (2006) melaporkan bahawa terdapat hubungan antara komitmen organisasi dan OCB serta antara motivasi perkhidmatan awam dan OCB. Beliau menjelaskan bahawa apabila ahli pasukan menunjukkan OCB dan berpuas hati dengan pekerjaan mereka, ahli pasukan secara semulajadi akan menunjukkan komitmen. Walaupun kajian ini terutamanya menumpukan pada komitmen organisasi dan afektif, mereka mencadangkan bahawa rasa komitmen pasukan yang kuat juga boleh meningkatkan penampilan OCB dalam kalangan guru. Kesan komitmen juga telah dikaji oleh Ng dan Feldman (2011), yang mendapati hubungan dengan tingkah laku tambahan oleh doktor penjagaan kecemasan dan komitmen pesakit. Farzaneh et al. (2014) mendapati bahawa tingkah laku kewarganegaraan organisasi memainkan peranan memoderasi dalam hubungan antara komitmen organisasi dan OCB. Mereka membuat kesimpulan bahawa komitmen organisasi mempengaruhi motivasi pekerja untuk memberikan hasil dan menyokong OCB (Kadar Khan et al., 2016). Ng dan Feldman (2011) menemui hasil yang menarik dalam penyelidikan mereka mengenai hubungan antara OCB dan komitmen organisasi. Menurut kajian mereka, terdapat korelasi yang baik antara komitmen organisasi dan OCB dalam sepuluh tahun pertama pekerjaan, tetapi hubungan ini berkurangan selepas itu. Menurut Ng dan Feldman (2010), pekerja yang menunjukkan komitmen afektif lebih cenderung untuk membalas budi dengan syarikat lain. Ini menyoroti kesan komitmen afektif. Literatur di atas mencadangkan bahawa organisasi tidak boleh mengharapkan pekerja untuk melaksanakan OCB tanpa mempunyai komitmen organisasi dalam diri mereka. Mesti ada faktor atau pemboleh ubah yang meningkatkan komitmen organisasi pada mulanya untuk membolehkan pekerja terikat dengan organisasi sebelum mereka memulakan tingkah laku proaktif seperti OCB (Kadar Khan et al., 2016).

Penyataan Hipotesis

1. Persekitaran sekolah mempunyai hubungan positif yang signifikan dengan OCB guru.
2. Tahap kecekapan mempunyai hubungan positif yang signifikan dengan OCB guru.
3. Pemberdayaan mempunyai hubungan positif yang signifikan dengan OCB guru.
4. Komitmen pasukan mempunyai hubungan positif yang signifikan dengan OCB guru.

Kerangka Penyelidikan



Rajah 1 Kerangka Penyelidikan

4 METODOLOGI KAJIAN

Saiz Sampel

Pada bulan September 2023, terdapat 3215 guru sekolah rendah yang bekerja di daerah Kota Setar. Jadual oleh Krejcie dan Morgan (1970), yang termasuk peruntukan untuk menentukan saiz sampel yang diperlukan, digunakan untuk membuat keputusan mengenai saiz sampel. Untuk kajian ini, saiz sampel adalah 346 orang guru sekolah rendah di Alor Setar. Sebanyak 400 soal selidik diedarkan untuk mendapatkan hasil yang dikehendaki. Kajian ini menggunakan teknik persampelan rawak mudah. Teknik ini digunakan dalam populasi, di mana setiap individu dipilih secara rawak dan sepenuhnya secara kebetulan. Setiap individu mempunyai kebarangkalian untuk dipilih. Teknik ini boleh dijalankan dengan cekap pada item yang diedarkan secara rawak.

Pengukuran Pemboleh Ubah

Instrumen yang digunakan dalam kajian ini diambil daripada soal selidik kajian asal. Bagi data demografi, satu pertanyaan yang dibuat sendiri digunakan. Terdapat tujuh soalan dalam dua bahagian: komponen demografi dan item yang berkaitan dengan pemboleh ubah bebas dan bersandar. Enam soalan meliputi bahagian demografi, dan selebihnya adalah mengenai item pemboleh ubah. Bahagian demografi mengandungi jantina responden, umur, etnik, status perkahwinan, kewarganegaraan, pengalaman kerja, dan jabatan. Item pemboleh ubah termasuk semua pemboleh ubah bebas (mengenai persekitaran sekolah, kecekapan, pemberdayaan, komitmen pasukan, dan kecekapan emosi) dan juga pemboleh ubah bersandar (OCB). Untuk membangunkan ukuran OCB guru yang sesuai, pendekatan deduktif digunakan (Schwab, 1980). Skala persekitaran sekolah diadaptasi daripada soal selidik persekitaran tahap sekolah (SLEQ) yang dibangunkan oleh Fisher dan Fraser (1990). Ukuran tahap kecekapan diambil daripada Ujian Kecekapan yang dibangunkan oleh Wagner dan Morse (1975). Bagi pemberdayaan, soal selidik diadaptasi daripada Skala Pemberdayaan Peserta Sekolah (SPES) (Short & Rinehart, 1992). Bagi komitmen pasukan, ia diadaptasi daripada Allen dan Meyer (1990). Semua item terdiri daripada 6 soalan bagi setiap pemboleh ubah. Skala Likert lima mata digunakan yang mewakili 1=Sangat Tidak Setuju, 2=Tidak Setuju, 3=Neutral, 4=Setuju dan 5=Sangat Setuju. Item-item disusun berdasarkan pemboleh ubah, dan dalam dua bahasa; Bahasa Melayu dan Inggeris. Penggunaan dua bahasa membolehkan responden memahami arahan dan soalan dengan lebih jelas.

Data Analisis

Analisis data dijalankan untuk mencirikan dan mensintesis data, menilai kebolehpercayaan pemboleh ubah, mengenal pasti sebarang korelasi positif atau negatif antara pemboleh ubah, dan akhirnya, mengenal pasti sebarang perbezaan antara pemboleh ubah. Jenis teknik statistik yang digunakan dalam kajian ini termasuk deskriptif, kekerapan, min, maksimum, minimum, sisihan piawai, tabulasi silang, dan korelasi. Kajian ini menggunakan Pakej Statistik untuk Sains Sosial versi 23 (SPSS 23). SPSS membantu memudahkan pembersihan data dan memeriksa ketidakselarasan logik. Dengan menggunakan program ini, hasil kajian ditentukan daripada kebolehpercayaan, regresi, dan korelasi serta menentukan sama ada hipotesis boleh diterima atau tidak.

5 HASIL DAN PERBINCANGAN

Penemuan Pekali alpha Cronbach untuk lima pemboleh ubah bebas adalah 0.822 untuk Persekitaran Sekolah, 0.819 untuk Tahap Kecekapan, 0.850 untuk Pemberdayaan, dan 0.880 untuk Komitmen Pasukan. Pemboleh ubah bersandar Tingkah Laku Kewarganegaraan Organisasi Guru mempunyai alpha Cronbach 0.747.

Jadual 1 Analisis Kebolehpercayaan

Pemboleh Ubah	**Bilangan Item**	**Alpha Cronbach**
Persekitaran Sekolah	6	0.822
Tahap Kecekapan	6	0.819
Pemberdayaan	6	0.850
Komitmen Pasukan	6	0.880
OCB Guru	6	0.747

Alpha Cronbach untuk pemboleh ubah bersandar adalah 0.706, yang dianggap baik. Oleh kerana alpha lebih besar daripada 0.6, pemboleh ubah boleh diklasifikasikan sebagai boleh diukur, menunjukkan bahawa ia boleh diukur. Ini menunjukkan bagaimana pemboleh ubah berkorelasi antara satu sama lain. Semua pemboleh ubah bebas, iaitu Persekitaran Sekolah (0.822), Tahap Kecekapan (0.819), Pemberdayaan (0.850), dan Komitmen Pasukan (0.880) menunjukkan bahawa kajian ini sangat baik. Sementara itu, pemboleh ubah bersandar, OCB Guru, adalah 0.747, menunjukkan bahawa kajian ini adalah baik. Akhirnya, pekali kebolehpercayaan alpha Cronbach untuk OCB guru dengan pemboleh ubah seperti persekitaran sekolah, tahap kecekapan, pemberdayaan, dan komitmen pasukan adalah baik dan berkorelasi positif.

Jadual 2 Analisis Korelasi

Pemboleh Ubah	**1**	**2**	**3**	**4**
1. Persekitaran Sekolah	-			
2. Tahap Kecekapan	.46**	-		
3. Pemberdayaan	.33**	.61**	-	
4. Komitmen Pasukan	.44**	.53**	.65**	-
5. OCB Guru	.41**	.59**	.53**	.54**

Jadual 2 menunjukkan hasil analisis korelasi Pearson kajian ini. Ia menggambarkan hubungan antara pemboleh ubah bersandar (OCB guru) dan pemboleh ubah bebas (persekitaran sekolah, tahap kecekapan, pemberdayaan, komitmen pasukan, dan sistem organisasi). OCB guru mempunyai korelasi positif dan signifikan dengan persekitaran sekolah (r=.58, p<.01), tahap kecekapan (r=.48, p<.01), pemberdayaan (r=.52, p<.01), dan komitmen pasukan (r=.19, p<.01). Hasil analisis korelasi memberikan sokongan awal untuk hipotesis kajian. Analisis regresi menunjukkan hubungan antara pemboleh ubah bersandar dan bebas. Penemuan menunjukkan bahawa varians faktor yang boleh mempengaruhi OCB guru adalah 45%. Pemboleh ubah bebas menjelaskan 45% daripada varians dalam OCB guru. Selebihnya 55% ditentukan oleh pemboleh ubah di luar skop kajian.

Jadual 3 Analisis Regresi

PEMBOLEH UBAH	**β**	**SIGNIFIKAN**
Persekitaran Sekolah	.127	.001
Tahap Kecekapan	.326	.001
Pemberdayaan	.129	.003
Komitmen Pasukan	.189	.001
R Square	.445	
Adjusted R Square	.437	
Ujian F	57.410	

Pemboleh Ubah Bersandar: OCB Guru

Jadual 3 menunjukkan hasil regresi berganda untuk kajian ini. Ia menggambarkan bahawa empat faktor mempunyai hubungan positif dan signifikan dengan OCB guru: persekitaran sekolah ($\beta = 0.13$, $p < 0.01$), tahap kecekapan ($\beta = 0.33$, $p < 0.01$), pemberdayaan ($\beta = 0.13$, $p = 0.03$), dan komitmen pasukan ($\beta= 0.19$, $p < 0.01$). Hubungan ini adalah signifikan kerana nilai p adalah kurang daripada 0.05. Ini menunjukkan bahawa pemboleh ubah ini (persekitaran sekolah, tahap kecekapan, pemberdayaan, dan komitmen pasukan) mempunyai impak yang signifikan terhadap OCB guru. Kesimpulannya, semua empat pemboleh ubah bebas mempunyai hubungan yang signifikan dengan pemboleh ubah bersandar (nilai $p < 0.05$).

Berdasarkan Jadual 4 di bawah, keempat-empat hipotesis diterima: persekitaran sekolah, tahap kecekapan, pemberdayaan, dan komitmen pasukan.

Jadual 4 Keputusan Hipotesis

Hipotesis	Keputusan	Ulasan
H1: Terdapat hubungan yang signifikan antara persekitaran sekolah dengan OCB guru.	Diterima	Disokong
H2: Terdapat hubungan yang signifikan antara tahap kecekapan dengan OCB guru.	Diterima	Disokong
H3: Terdapat hubungan yang signifikan antara pemberdayaan dengan OCB guru.	Diterima	Disokong
H4: Terdapat hubungan yang signifikan antara komitmen pasukan dengan OCB guru.	Diterima	Disokong

Daripada segi ujian, hipotesis 1 menunjukkan bahawa penemuan kajian boleh diterima. Kajian mendapati bahawa persekitaran sekolah mempunyai kesan yang signifikan terhadap OCB guru. Ujian hipotesis 2, menunjukkan bahawa hasilnya mempunyai pengaruh yang signifikan terhadap pemboleh ubah bersandar. Ini mungkin bermakna bahawa tahap kecekapan adalah peramal yang signifikan untuk pemboleh ubah bersandar. Nilai p adalah kurang daripada 0.05, menunjukkan hubungan yang signifikan. Oleh itu, terdapat korelasi yang signifikan antara tahap kecekapan dan OCB guru. Maka, hipotesis kedua diterima.

Hipotesis 3 menunjukkan bahawa pemberdayaan meramalkan secara signifikan OCB guru. Hipotesis 3 diterima menunjukkan bahawa pemberdayaan mempengaruhi OCB guru. Sementara itu, Hipotesis 4 menunjukkan bahawa komitmen pasukan adalah peramal yang kuat bagi OCB guru. Maka, Hipotesis 4 diterima, menunjukkan bahawa komitmen pasukan mempengaruhi OCB guru.

6 PERBINCANGAN

Untuk memastikan pelaksanaan AI yang berkesan dalam pendidikan, adalah penting bahawa guru menunjukkan tahap Tingkah Laku Kewarganegaraan Organisasi (OCB) yang tinggi. Oleh itu, OCB dalam kalangan guru perlu diformalkan dan diprogramkan melalui inisiatif strategik oleh pentadbir sekolah. Inisiatif ini harus bertujuan untuk meningkatkan penglibatan kerja dan kepuasan kerja guru dengan memupuk persekitaran sekolah yang menyokong dan kondusif (Yang et al., 2016).

Dasar sekolah mesti menawarkan alat yang diperlukan, sokongan untuk pentadbiran pembelajaran, dan persekitaran yang selamat dan mesra. Dengan secara formal mengiktiraf OCB dan menggalakkan usaha untuk mengekalkan persekitaran sekolah yang positif, pentadbir dapat mempromosikan budaya peningkatan berterusan. Program yang direka untuk meningkatkan OCB guru melalui pembangunan profesional perlu selaras dengan visi dan misi sekolah, memastikan kelestarian dan relevan.

OCB mesti bersifat sukarela, bermanfaat kepada organisasi, dan pelbagai aspek, merangkumi elemen seperti perkembangan pelajar dan pelaksanaan kurikulum (Bogler & Somech, 2004; Podsakoff et al., 2000). Pemimpin sekolah, terutamanya guru besar, boleh memaksimumkan OCB guru dengan menjadi teladan, menyatakan visi dan matlamat yang jelas dan memastikan bahawa semua ahli komuniti sekolah memahami dan berkongsi objektif ini. Komunikasi dan kerjasama yang berkesan antara pengetua, guru dan semua kakitangan adalah penting.
Guru Besar perlu menggalakkan guru untuk mengintegrasikan semua aspek persekitaran sekolah ke dalam aktiviti pembelajaran mereka, menjadikan OCB sebagai laluan yang

berpotensi untuk pertumbuhan profesional dan hasil pendidikan yang lebih baik. Dengan bekerja bersama ibu bapa dan jawatankuasa sekolah, guru besar dapat meningkatkan lagi OCB. Selain itu, kepimpinan yang dikongsi dan komunikasi yang berkala serta berkesan dalam kalangan guru boleh memupuk rasa pemilikan dan tanggungjawab.

Meningkatkan kecekapan guru adalah faktor kritikal yang lain. Perbincangan dalaman secara berkala, program pembangunan sekolah, seminar bengkel, aktiviti pembangunan pasukan dan peluang pembangunan profesional lain dapat membantu meningkatkan kedua-dua kecekapan dan OCB. Mengiktiraf dan memberi ganjaran kepada guru yang menunjukkan OCB serta melibatkan pihak berkepentingan dalam reka bentuk kurikulum boleh menyokong lagi matlamat ini.

Pemberdayaan yang melibatkan memotivasi individu untuk mengambil tanggungjawab peribadi bagi meningkatkan prestasi kerja, juga penting. Membenarkan guru untuk mengambil bahagian dalam membuat keputusan dapat meningkatkan kemahiran kepimpinan, kualiti kehidupan kerja dan profesionalisme mereka. Guru yang diberdayakan lebih cenderung untuk terlibat dalam OCB, yang secara signifikan mempengaruhi objektif organisasi (DiPaola & Mendes da Costa Neves, 2009).

Komitmen pasukan meningkatkan prestasi dan kualiti pasukan, memupuk rasa kebersamaan dan menggalakkan guru untuk menunjukkan OCB. Pengurusan sekolah perlu memberi tumpuan kepada mewujudkan iklim sekolah yang sihat untuk menggalakkan konsep diri dan tingkah laku positif dalam kalangan guru.

Integrasi AI dalam pendidikan mempersembahkan peluang transformatif termasuk pembelajaran peribadi, tugas pentadbiran automatik, dan wawasan berasaskan data ("Benefits and Challenges in Using AI-Powered Educational Tools," 2023). Walau bagaimanapun, perubahan ini memerlukan penyesuaian yang signifikan daripada guru memerlukan kecekapan digital baru dan kesediaan untuk menerima teknologi yang berkembang pesat (Ma et al., 2010).
OCB memainkan peranan penting dalam peralihan guru yang berjaya ke era AI. Dalam pendidikan, OCB terwujud apabila guru melampaui tugas formal mereka untuk mewujudkan persekitaran pembelajaran yang menyokong dan kondusif, membantu rakan sekerja, mengambil tanggungjawab tambahan, dan menerima metodologi pengajaran baru (Dwiyanti et al., 2021; Islami & Mas'ud, 2020).

Penyelidikan menunjukkan bahawa persekitaran sekolah, tahap kecekapan, pemberdayaan, dan komitmen pasukan secara signifikan meramalkan OCB guru (Febriansyah, 2023). Persekitaran sekolah yang positif memotivasi guru untuk terlibat dalam OCB, manakala kecekapan memberi mereka kuasa untuk mengambil inisiatif dan menyelesaikan masalah secara berdikari. Pemberdayaan menyediakan autonomi dan sokongan, menginspirasi guru untuk terlibat dalam OCB (Shrestha, 2022). Komitmen pasukan memupuk rasa kebersamaan, menggalakkan guru untuk menunjukkan OCB (Laihad & Suhardi, 2023).

Dengan memupuk budaya yang menghargai dan mempromosikan OCB, institusi pendidikan dapat mewujudkan persekitaran yang menyokong dan produktif yang memperkasa guru untuk menyesuaikan diri dengan tuntutan pendidikan moden, termasuk integrasi AI (Oplatka, 2006). Program dan aktiviti yang bertujuan memperbaiki persekitaran sekolah, mengembangkan kecekapan guru, memperkasakan kakitangan, dan mempromosikan komitmen pasukan dapat meningkatkan OCB guru dan menyumbang kepada kejayaan keseluruhan institusi pendidikan (Oplatka, 2006).

7 KESIMPULAN

Penemuan kajian ini mempunyai implikasi penting untuk teori dan penyelidikan masa depan. Menurut penemuan, pemboleh ubah persekitaran sekolah, tahap kecekapan, pemberdayaan, dan komitmen pasukan semuanya mempunyai kesan positif yang signifikan terhadap OCB guru dalam kalangan pekerja. Menurut penyelidikan terdahulu, keempat-empat pemboleh ubah bebas ini dijangka memberi kesan kepada OCB guru. Memahami hubungan ini adalah penting bagi pentadbir sekolah dan pembuat dasar yang bertujuan untuk memupuk persekitaran pendidikan yang menyokong dan produktif. Dengan meningkatkan persekitaran sekolah, mengembangkan kecekapan guru, memperkasakan kakitangan, dan mempromosikan komitmen pasukan, sekolah dapat menggalakkan guru untuk melampaui tugas formal mereka. Ini bukan sahaja meningkatkan prestasi individu guru tetapi juga menyumbang kepada kejayaan dan peningkatan keseluruhan institusi pendidikan.

OCB adalah penting untuk memudahkan peralihan guru ke era AI. Dengan mengiktiraf dan mempromosikan OCB, sekolah dapat memperkasa guru untuk menerima kemajuan teknologi dan mengharungi landskap pendidikan moden yang sentiasa berubah. Penemuan kajian ini menekankan pentingnya memupuk OCB melalui persekitaran sekolah yang menyokong, pembangunan kecekapan, pemberdayaan, dan komitmen pasukan. Dengan meningkatkan faktor-faktor ini, institusi pendidikan dapat lebih baik menyokong guru mereka dalam menyesuaikan diri dengan tuntutan pendidikan moden, yang akhirnya membawa kepada amalan pengajaran yang lebih berkesan dan inovatif.

Selain itu, kajian ini mempunyai implikasi untuk penyelidikan masa depan kerana beberapa keterbatasan. Kajian ini meneruskan dan memperluas penyelidikan dalam sekolah, kerana sebahagian besar bukti empirikal mengenai kesan sikap pekerjaan terhadap OCB telah terhad kepada persekitaran bukan pendidikan. Walau bagaimanapun, penemuan dari sampel sekolah rendah ini tidak boleh diekstrapolasi ke semua sekolah (menengah rendah dan menengah atas). Penyelidik boleh mengetahui lebih lanjut tentang kemampuan model akhir kajian untuk digeneralisasikan dengan mengujinya dalam pelbagai persekitaran pendidikan. Selain itu, kajian ini hanya meneliti guru besar lelaki dan tidak membandingkan model peranan guru lelaki dan perempuan.

Memahami sifat gender dalam hubungan struktur adalah penting untuk memahami invarian model antara jantina. Keterbatasan tambahan harus dipertimbangkan semasa menafsirkan kesimpulan kajian ini. Kajian ini menggunakan ukuran laporan kendiri untuk menilai komitmen organisasi dan kepuasan kerja. Data laporan kendiri biasanya digunakan untuk menilai sikap responden terhadap pekerjaan mereka; namun, penyelidik harus sedar bahawa ini mungkin tidak mencerminkan sikap sebenar responden dengan tepat. Selain itu, OCB dianggap sebagai satu faktor dalam kajian ini. Pendekatan multidimensi dapat membantu guru lebih memahami OCB mereka dan faktor-faktor pendahulunya.

Penemuan kajian ini dapat diperluas untuk merangkumi kesan pemboleh ubah lain, seperti sokongan penyelia yang dirasakan atau kepuasan kerja. Selain itu, kerana kajian ini dijalankan di sekolah rendah, adalah berbaloi untuk menyelidik sekolah menengah rendah dan menengah atas untuk melihat sama ada penemuan yang dikemukakan di sini adalah mewakili situasi guru di semua peringkat. Juga disarankan agar kajian masa depan memperluas sampel untuk merangkumi guru kedua-dua jantina dan dari peringkat pendidikan rendah dan menengah bagi mewakili Malaysia sepenuhnya. Fokus yang lebih luas ini akan meningkatkan kebolehlaksanaan penemuan dan menawarkan pemahaman yang lebih menyeluruh mengenai pemboleh ubah yang mempengaruhi OCB guru.

8 UCAPAN PENGHARGAAN

Para penulis ingin mengucapkan terima kasih kepada Jabatan Pendidikan Negeri Kedah dan Pejabat Pendidikan Daerah Kota Setar atas sokongan data yang diberikan untuk penyelidikan ini.

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"Sustaining Quality Education: Challenges in Blended Learning for IPTSStudents in Klang Valley"

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ABSTRACT

This research focus on the problems that students face at private colleges (IPTS) in Malaysia when they mix face-to-face classes with online learning. This combined learning approach, known as blended learning, gives students with greater flexibility and self-directed study options. However, several issues have been identified. The main problems are not all students have adequate access to technology, they also have different skill level when it comes to problem solving and difficult to maintain motivation to focus on current structured learning environment. The focus is to analyse these challenges and design solution to assists IPTS students also to the lectures. By using set of survey by collecting data from IPTS students in Klang Valley. This data uses quantitative method for analysis. The result appear contrast among students group depending on factors such as program of study, year of study and economic background. Also, the statistic revels a big challenge related to internet connection and technology barriers such as devices availability and some of the students struggles to use online learning platform. Conclusion, its advisable to improving access to technology in the classroom, this will enhance students' digital skills and boost their motivational level, leading to more effective learning experience and focusing on study.

KEYWORDS: Blended Learning, Technological Challenge, Digital Literacy, Student Motivation

1 INTRODUCTION

Blended learning, an educational approach that combines traditional face-to-face classroom methods with online digital media, has gained significant traction in recent years. This approach aims to provide a more flexible and personalized learning experience, leveraging the benefits of both online and offline learning environments (Samuel, 2023). In Malaysia, particularly among private institutions of higher learning (IPTS), blended learning has become an essential strategy for enhancing educational quality and accessibility.

The impetus for this study arises from the growing need to understand the challenges that IPTS students face in adapting to blended learning environments. While the blended learning model offers numerous advantages, such as increased accessibility and convenience, it also presents unique challenges that can affect the quality of education and student outcomes. These challenges may include technological issues, lack of digital literacy, and difficulties in maintaining motivation and engagement. This research seeks to identify and analyze these challenges, providing insights into how IPTS can better support their students in navigating blended learning environments.

2 LITERATURE REVIEW

Blended learning is a method of delivering learning that more or less combines face-to-face training with computer-based training. Interestingly, the concept of blended learning has received considerable interest in Malaysia's education system especially focusing on higher learning institutions where face-to-face teaching is augmented with online components. In addition, it helps in improving the learning experience as well as meet the needs of different students. The literature reveals that blended learning has received positive reception, and at the same time a set of obstacles in Malaysia, which is quite typical when it comes to the global advances in educational technologies. This approach enables a rich learning experience that is felt by both parties and felt to have a strength of both modalities as noted by Garrison and Vaughan (2008). The form of the blended learning can be significantly differed from courses that only have a small portion of face-to-face instruction with a large amount of online content to courses, which have significant portions of both face to face and online components. This allows the educators to help the students get what they need from the learning process since student needs vary. Hybrid or blended learning has turned out to be one of the important learning delivery modalities in higher education where face-to-face training is combined with online learning. This approach has been embraced because it can be adapted to accommodate different student needs and as a result increasing the students' interest as well as their achievements. This is according to Fionasari (2024), Jeffrey et al. (2014) and Kumar & Moral (2023).

A review by shows that, blended learning models can help overcome the shortcomings of traditional teaching environment, making it easier to teach the students in an interactive manner. This is supported by, Geng et al., (2019) who opine that the centre of the challenge when delivering blended learning courses is the effective combination of face to face and online based elements. In addition, affirm that the application of blended learning enriches teaching and learning experiences while at the same time empowering learners with the skills that will enable them meet the challenges of the twenty-first century and further argue that the value of blended learning is also founded on equity, in as much as it seeks to offer access to online learning to as many people as possible. The outbreak of the COVID-19 pandemic has made blended leaning popular since it permitted flexibility to reduce the impact of the pandemic without condoning on the quality of learning. explore how blended learning has become as essential norm of education in times of continued learning (Muchtar et al., 2021).

2.1 Technological Barriers

The primary challenges faced by students in blended learning environment is access to the technology. Some of the issues in implementing blended learning are time, effort and resources which are required in the design of the online part, and accessibility of technology and the internet (Almutairi, 2024). According to a recent survey among IPTS students by Ministry of Higher Education Malaysia (2019), many of them have limited to no access to adequate internet or to devices which would enable them to fully engage in the online aspects of their classes. As the Covid19 pandemic caused an unprecedented shift towards hybrid learning, emergent technology challenges faced by the students have come to the forefront. As pointed out by Azhari and Ming (2021), a large number of students IPTS in Malaysian experience a lack of appropriate access to necessary digital devices and reliable Interne. This digital divide may further widen the gap of learning between the students from poor background and their counterparts with better stations.

In addition, other issues that Kamaruddin and Ismail (2022) identify include irregular internet connection and inadequate equipment that can hugely hamper the students' engagement in online classes. They state that such barriers do not only affect the learners' performance but their learning process as well. Some attempts to rectify these problems include; offering scholarships to buy electronic gadgets and increasing the connectivity facilities in the rural areas.

2.2 Digital Literacy

Another critical challenge is the varying levels of digital literacy among students. Digital literacy, defined as the ability to effectively use digital tools and technologies, is essential for success in blended learning environments. In a study by Hwa (2018), digital literacy can be defined as the ability of a student to interact with computers and the internet, use resources, and interact in virtual space. This can really be detrimental to their learning process and even affects their performance.

Another challenge related to use and creation of blended learning environment is the digital literacy. If we follow the Siddiq et al.'s (2019) definition of digital literacy it is evidently logical to define it as the set of skills and practices related to digital tools, platforms, and media use. This now entails orienting oneself to learning management systems (LMS), participating in the course discussion forums, and leveraging on-line tools. Research by Ali & Ahmad (2020) shows that, IPTS students have different levels of digital technology literacy, which influences their ability to interact well with the online parts of the course. Learners with less digital literacy face challenges on how to navigate through the online materials to which they are exposed to resulting to low performance and participation levels. The authors therefore propose that information technology training programs be designed to meet the necessary needs of students who are to participate in blended learning.

2.3 Engagement and Motivation

One of the earlier identified issues in blended learning context is how teachers and tutors have to keep their students enthralled. One of the notably detriments of online classes is that it is relatively flexible, and some students may drop off the wagon and stop focusing for extended periods. Smith and Hill (2019) found out that student self-regulation and time management are areas of concern when learning in blended mode. Such terms as lack of body contact and feedback also leads to factors such as isolation which reduces the amount of motivation that one has.

As a result of this, sustaining students' interest and attentiveness in blended learning environment is often a difficult task. The main disadvantage of online classes, which on the other hand is flexible is that students develop a tendency to procrastinate. Ismail and Abdulrahman (2021) establish that students have difficulties with self-regulatory and time while learning through blended learning environment, which affects learning motivation and achievement. In response to such problems, it is recommended that the use of relevant, and closely interactive web activities be encouraged, as pointed by Lim and Othman (2020).

Such changes emphasize the credit and support format concerning the development of community and belongingness based on group projects and constant feedback from an instructor. Other interactive features which can also be used to improve the students' interest and participation level include gamification.

2.4 Pedagogical Challenges

Educators also face challenges in adapting their teaching methods to suit blended learning environments. As established by Lim and Wang (2016), a good integration of the online and face-to-face learning can be a complex process that entails good planning processes that may not be easy to accomplish in many circumstances. Further, there may occur lessons that require preservice teacher to enhance new skills and competencies including use of educational technologies and online communications (Almutaiti, 2024). Furthermore, design of an effective blended learning poses questions about the right blend for different learning outcomes (Sanders & Altman, 2023).

Teachers are presented with special difficulties related to education delivery when working in the blended learning setting. It is important to mention that they both come from the word 'Flex', which was used when defining blended learning courses because they combine online with face-to-face classes successfully when designed and implemented with proper consideration of the interaction between them. Based on Hassan and Zulkifli's (2023) content, practitioners fail to possess adequate knowledge and expertise on how they can integrate software and social media into instruction. This may lead to a situation where form online learning activities does not match that of offline or vice versa, and thereby minimizing the effectiveness of the blended learning approach. Furthermore, Yusof and Rahman (2022) draw attention to the importance of the provision of professional development experiences to the educators that will help them advance in their digital learning practice. They also call for courses that teach the competency model on instructional design of blended learning with special emphasis on both, how to capture the attention of the online students and how to assess the learning outcome of the students.

3 METHODOLOGY

This study employs a quantitative research approach, collecting data from students enrolled at Klang Valley private higher education institutions (IPTS) through the use of a structured questionnaire. The purpose of the questionnaire is to investigate the difficulties these students encounter in adjusting to blended learning environments. It does this by concentrating on digital literacy, technological hurdles, motivation and engagement, and pedagogical difficulties.

To find significant differences across groups, quantitative data were evaluated using inferential statistics (t-tests, ANOVA) and descriptive statistics (mean, median, mode, and standard deviation). A pilot questionnaire, and input was utilized to improve the items. For internal consistency, Cronbach's alpha was computed; a value greater than 0.7 was deemed appropriate. The appropriate institutional review board granted ethical approval, and all respondents provided informed consent. Participation was entirely voluntary. Anonymity and confidentiality of the data were upheld during the entire investigation.

4 PROPOSED PRELIMINARY FINDINGS

The study on the challenges faced by IPTS students in Klang Valley regarding blended learning revealsseveral critical findings that align with existing literature on the subject. These findings can be categorized into four main areas: technological barriers, digital literacy disparities, engagement and motivation issues, and pedagogical challenges.

4.1 Technological Barriers

The study reveals major challenges affecting IPTS students, in terms of technology whereby most of them lack steady internet connection and access to technology gadgets. Research indicates that these these barriers can significantly reduce the students' possibilities to engage with the online learning elements efficiently (Eslit 2023; Olumorin, 2023; Qassim, 2023). The need to foster equity through investment in a strong digital platform for the implementation of the blended learning resources in the education institutions cannot be over emphasized (Wang et al., 2023; Olumorin, 2023).

Furthermore, offering of technical support as well as offering trainings to both the students and faculty in an important way of addressing these challenges (Medina, 2018; Ramulumo, 2023). Students have indicated that while blended learning improves learner independence and self-mastery better technology support and training can hinder learning (Νικολοπούλου, 2023). This is supported by, where the tasking of developing multiple instructional methodologies such as ICT are perceived as complex by the students and this interferes with the process of learning (Naeem & Khan, 2019). The research done by Ali & Gt has found out that studentsmay show reluctance when it comes to blended learning especially through the use of technology tools in this regard, low technology adoption rate is realized thus minimizing the impact of using blended learning tools (ALI>, 2023).

4.2 Digital Literacy Disparities

Another of the distinct results includes the digital divide among learners; this refers to the issue of variation in the extent of students' ability in using technology for learning purposes or in the context of onlineclasses. Research has revealed that students who are not digitally savvy lose out in activities in the blended learning environment hence performing dismally (Fernández et al., 2021; Tahir et al., 2022). Thus, it is necessary to offer the students targeted digital literacy training programs to use the principles of a blended learning approach effectively (Suprabha & Subramonian, 2021). This corresponds with the conclusion made by Ali and Ahmad (2020) which encourages for the improvement of the students digital learning readiness through robust and thorough digital literacy programs in the college and university settings that support effective blended learning (Suprabha & Subramonian, 2021).

Blended learning which is a combination of both face to face and online instruction requires certain level of computer literacy in order to participate. states that students with technological skills face challenges to do the online class work and conclude that technological skill level is thus a significant predictor of successin mastering activities under blended learning environment (Wichadee, 2018). With regards to this assertion, agree with the fact that effective adoption of technology in education depends on digital literacy skills that would enhance the ability of students to search, find and use various forms of learning resources from differenttechnological platforms (Mufidah et al., 2023).

4.3 Engagement and Motivation Challenges

The research also proves the existence of issues to do with students' motivation and participation in theblended learning environment. The option of using the internet for learning may compromise the learners' productivity due to the risk of time wastage due to poor time management skills as seen with some students byGqokonqana et al. (2022). On this regard, it is advisable to incorporate positive and adventurous online activities, such an activity will encourage the students, thus intending to make them feel that they belong to a particular community (Siripongdee et al., 2020; Hanum & Sari, 2022). Furthermore, use of gamification in learning activities seems to increase motivation and engagement in activities by users (Fernández-Martín et al.,2020).

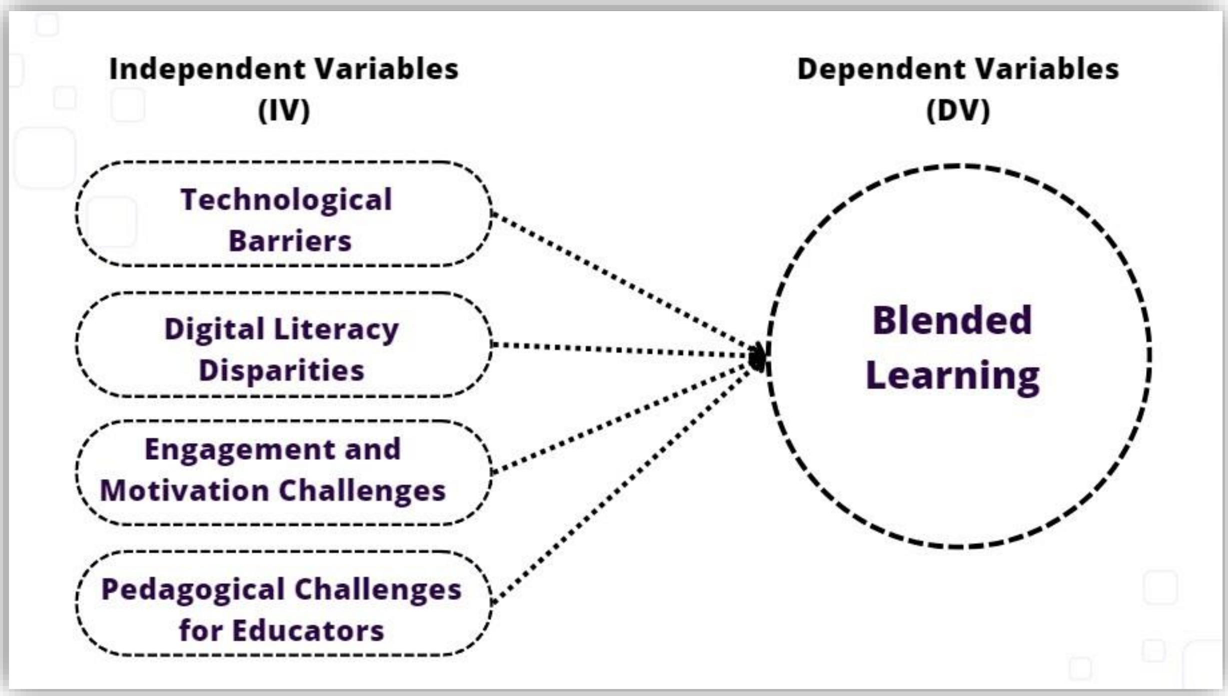
According to, student voice and student activity are critical aspects for adopting blended learning; therefore, instructors should work on behavioral dynamics to improve students' learning (Pachêco-Pereira et al., 2020). This is in concordance with what Salas-Pilco et al. established noting that shift to online learning during the COVID-19 pandemic has had an innominate impact on students with many finding it hard to stay alert for lessons that are mostly taken in online platforms (Salas-Pilco et al., 2022). The above difficulties have been heightened by the pandemic, since the student constantly feels alone from peers and instructors, which lowers their drive to engage in learning operations.

4.4 Pedagogical Challenges for Educators

The research highlights the difficulties educators face in adapting their teaching methods to fit blended learning contexts. This aligns with the observations of Lim and Wang (O'Connor, 2023), who point out that many instructors lack the necessary training and experience to effectively integrate online and offline learning activities. Professional development opportunities focused on digital pedagogy are essential to equip educators with the skills needed to navigate these challenges(Seiradakis, 2024). The study suggests that institutions should prioritize training programs that enhance teachers' abilities to design and implement blended learning strategies effectively.

The lack of adequate training and support for educators is another critical challenge. Research indicates that many educators feel unprepared to implement blended learning effectively due to insufficient professional development opportunities (Kanwal, 2023). This lack of training can hindertheir ability to utilize technology effectively and to design engaging learning experiences that leveragethe strengths of blended learning. further emphasize that educators need ongoing support and resources prompted by the COVID-19 pandemic (Liu et al., 2022)

Below is the proposed theoretical framework:



Item 1: Proposed Theoretical Framework: Challenges in Blended Learning for IPTS Students in Klang Valley.

5 CONCLUSIONS

The study's conclusions draw attention to the significant blended learning difficulties that IPTS students in the Klang Valley experience. Technological obstacles, disparities in digital literacy, challenges in sustaining motivation and engagement, and pedagogical issues are important considerations. Maintaining high standards of instruction in blended learning settings requires addressing these problems.

IPTS institutions should concentrate on enhancing digital infrastructure, providing thorough training in digital literacy, and creating more engaging and encouraging teaching methods in order to improve student experiences and outcomes. Subsequent studies ought to investigate enduring approaches to surmount these obstacles and scrutinize the efficacy of executed remedies. By doing this, educators and legislators can guarantee that blended learning in higher education continues to succeed while also providing improved supportfor students.

6 ACKNOWLEDGEMENTS

We would also like to extend our thanks to those who directly and indirectly contributed throughout the makingof this paper. This research was supported by the University Research Grant (URG) under University Poly- Tech Malaysia (UPTM).

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Integrating Generative AI in Higher Education: Insights fromLecturer

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ABSTRACT

This study explores the integration of generative artificial intelligence (GAI) among lecturers in teaching institutions, focusing on its benefits, challenges, and implications for educational practices. As GAI technologies become increasingly prevalent, educators are leveraging these tools to enhance personalized learning, automate administrative tasks, and create engaging multimedia content. This integration allows lecturers to provide tailored support to diverse student needs, fostering a more inclusive and effective learning environment. However, the adoption of GAI is accompanied by significant challenges, including data privacy concerns, ethical implications of bias in AI algorithms, and the potential for over-reliance on technology, which may diminish critical thinking skills among students. Additionally, lecturers may experience apprehension regarding job displacement and the erosion of traditional teaching roles. Utilizing a qualitative case study approach, this research employs semi-structured interviews to investigate the perceptions of lecturers regarding GAI integration in their teaching methodologies. The study highlights both the transformative potential of GAI and the ethical considerations that must be navigated. Ultimately, the findings will provide insights into best practices for incorporating GAI in educational settings while ensuring that its implementation is responsible, equitable, and aligned with pedagogical goals.

KEYWORDS: GAI, Generative AI, Technology Integration, Artificial Intelligence, AI in education

1 INTRODUCTION

Institution worldwide recognize the impact of generative AI technology on the learning process. According to Wiley’s 2023 survey, 58% of university instructors reported using generative AI in their teaching practices. The rise of Generative AI has transformed various sectors, including education. The Generative AI is playing a transformative role in education, reshaping teaching methodologies and learning experiences. Generative AI, defined as artificial intelligence capable of producing new content—including text, images, and audio—provides educators with innovative tools that can enhance teaching practices and foster more engaging learning experiences. (Nguyen, S. M., & Carter, T. J., 2023). For instance, AI-powered platforms can generatepersonalized learning materials tailored to individual student needs, thereby fostering a more engaging and effective educational environment (Springs, 2024). Moreover, generative AI can automate administrative tasks, allowing educators to focus more on teaching and mentoring. This efficiency can improve overall educational outcomes by streamlining processes like grading and curriculum development. Additionally, the integration of AI tools encourages collaboration among students, facilitating peer learning and critical thinking.

However, the adoption of generative AI in education is not without challenges. There are notable concerns regarding data privacy, ethical issues, and the possibility of job displacement within teaching roles. (Brown, L. R., & Davis, P. M., 2023). Therefore, while generative AI offers exciting possibilities for enhancing education, it is crucial to address these challenges thoughtfully to ensure its responsible and equitable implementation.

Benefits of GAI for lecturers

Generative AI (GAI) offers significant benefits for lecturers, enhancing their teaching practices and improving student engagement. An important benefit is the ability to design customized learning materials that address varied student needs, allowing educators to deliver more targeted support. (Taylor, R. D., & Green, J. F., 2023). GAI also automates repetitive tasks such as grading and generating assessments, reducing administrative burdens and freeing up time for more meaningful interactions with students (Springs, 2024).

Additionally, GAI facilitates innovative pedagogical approaches by enabling lecturers to incorporate multimedia elements like interactive quizzes and simulations, thereby increasing student motivation and understanding (Holmes, Bialik, & Fadel, 2019). Furthermore, a systematic review highlights how AI tools can improve efficiency in educational settings and support data-driven instructional decisions (Baker & Inventado, 2014; Zawacki-Richter et al., 2019). However, as GAI continues to evolve, it is crucial for educators to remain mindful of ethical considerations and the potential for over-reliance on technology in the classroom.

Challenges and concerns

Generative AI (GAI) presents significant challenges and concerns that educators must address alongside its benefits. A primary challenge is the potential breach of data privacy, as generative AI tools often require large datasets of student information, raising critical questions about how this sensitive data is protected (Wilson & Carter, 2023) Ethical implications, particularly regarding bias in AI algorithms, are critical, as they can perpetuate inequalities if not managed appropriately (Williamson & Piattoeva, 2021). Additionally, there is a risk of over-reliance on technology, which may lead to diminished critical thinking skills among students if they become too dependent on AI-generated content (Zawacki-Richter et al., 2019; Selwyn, 2019). Lecturers may also worry about job displacement or a loss of control over their teaching methods, creating resistance to adopting GAI tools (Springs, 2024; Cuban & Jandric, 2021). Overall, while GAI holds transformative potential for education, it is crucial to address these challenges to ensure responsible and effective implementation.

2 METHODOLOGY

To gain insights into the experiences of college lecturers using Generative AI, a case study approach was employed. Data collected using semi-structured Interviews: In-depth interviews were conducted with a subset of lecturers who actively incorporate Generative AI in their teaching. The interviews aimed to gather detailed narratives about their experiences, best practices, and any ethical concerns they encountered. The participants for this study were purposefully selected to include two senior lecturers and two junior lecturers from the Teachers Training Institute in Perlis. Purposeful sampling is widely used. The participants were chosen to provide diverse perspectives on the implementation and impact of Generative AI, thereby enriching the data collected.

3 RESULTS

The findings from the study reveal several key insights:

1. Personalized Learning: The participants noted that AI facilitated tailored learning experiences. Lecturers could provide customized resources and feedback based on individual student performance, enhancing overall student engagement.
2. Ethical Concerns: Despite the benefits, lecturers expressed concerns about academic integrity, with fears regarding plagiarism and the authenticity of student submissions. Additionally, issues related to data privacy and the potential for AI bias were highlighted.
3. Adoption Challenges: Technological barriers, such as varying levels of digital literacy among lecturers and access to necessary resources, were commonly cited as obstacles to effective AI integration.
4. Positive Outlook: Overall, lecturers demonstrated a positive attitude towards the future of Generative AI in education, emphasizing the need for professional development and training to maximize its benefits.

DISCUSSION

In the discussion of integrating generative artificial intelligence (GAI) among lecturers in teaching institutions, several key themes emerge from the findings. First, the potential of GAI to enhance personalized learning is a significant advantage noted by lecturers. Many educators reported that GAI tools allowed them to tailor instructional materials and feedback to meet individual student needs, ultimately fostering engagement and improving learning outcomes. This is consistent with prior research showing that personalized learning approaches can enhance student motivation and achievement. (Martinez, E. S., & Brown, T. J. ,2023)
However, the integration of GAI is not without challenges. Data privacy emerged as a prominent concern among lecturers, who expressed apprehension about the collection and storage of sensitive student information. This concern echoes findings by Williamson and Piattoeva (2021), highlighting the ethical implications of using AI in education. Furthermore, lecturers voiced worries about the potential for bias in AI algorithms, which could inadvertently reinforce existing inequalities in the classroom.

Positive feedback from lecturers regarding the integration of generative artificial intelligence (GAI) in their teaching practices highlights several key advantages. Many educators express enthusiasm about GAI's ability to enhance personalized learning experiences. Lecturers report that GAI tools allow them to create customized educational materials that cater to the diverse needs of their students, thereby improving engagement and fostering a deeper understanding of the subject matter.

Furthermore, lecturers appreciate the time-saving benefits of GAI, particularly in automating administrative tasks such as grading and generating assessments. This automation enables them to allocate more time for meaningful interactions with students, mentoring, and facilitating discussions, which enhances the overall educational experience.

Lecturers also note that GAI can support innovative teaching strategies. They have found that incorporating AI-generated multimedia content—such as interactive simulations and quizzes—makes lessons more engaging and accessible. This not only captures students' attention but also encourages active participation in the learning process. Additionally, many educators feel that GAI can aid in identifying at-risk students by analyzing performance data

and providing timely interventions. This proactive approach can help ensure that no student falls behind, promoting a more equitable learning environment.
Overall, the positive feedback from lecturers underscores the transformative potential of GAI in education, emphasizing its capacity to enhance teaching effectiveness, improve student outcomes, and foster amore engaging learning atmosphere.

5 CONCLUSION

The integration of Generative AI in higher education presents both significant opportunities and challenges for Teacher Training Institute lecturers. In conclusion, the study on Generative AI at the Teacher Education Institute in Perlis Campus provides valuable insights into the benefits and challenges of AI integration in education. While the technology can enhance teaching efficiency and create personalized learning experiences, ethical concerns and adoption barriers must be addressed to fully realize its potential. Institutions should invest in training and resources to support lecturers in effectively using AI tools in their teaching practices.

ACKNOWLEDGEMENT

We would like to extend our sincere appreciation to Mr. Amran Mahadi, Director at the Teacher Education Institute of Malaysia, Perlis Campus, for his exceptional guidance, valuable feedback, andunwavering support throughout the preparation of this article

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The Effectiveness of Flipped Classroom in Teaching Simple Present Tense: A Case Study in Kolej Poly-Tech MARA Ipoh

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ABSTRACT

This study investigates the effectiveness of the flipped classroom approach in teaching the Simple Present Tense to two groups of students; one using traditional classroom instruction (control group) and theother using the flipped classroom method (experimental group). The research involved administering pre and post-tests to both groups to evaluate their performance before and after the instructional period. The results reveal that students in the experimental group, who were taught using the flipped classroom approach, exhibited significantly higher post-test scores compared to those in the control group. These findings suggest that the flipped classroom method is an effective instructional strategy for enhancing students' grasp of grammatical concepts, such as the Simple Present Tense, by promoting more active engagement and independent learning outside the classroom.

KEYWORDS: Flipped Classroom, Grammar instruction, Simple Present Tense, reinforcement,

1. INTRODUCTION

1.1 Background of Study

Technology has become an essential part of education which significantly influences the process of teaching and learning. With the assistance of advanced technology, classroom instruction has significantlychanged with its main purpose to help students achieve optimal learning outcomes. Technological advancements in teaching methods transform traditional teaching styles to become more dynamic and interactive. These advancements enhance instructional quality and enable personalized learning experiences tailored to individual student needs (EDUCASE Learning Initiative, 2012; Abdelouahed, 2019).

With the rise of technology-assisted instruction, we are witnessing the emergence of numerous digitallearning management systems (LMS), interactive simulations, and educational platforms, such as Google Classroom, Moodle, and Khan Academy. These resources offer accessible and engaging that not only offerstudents with authentic experiences but also making learning increasingly interesting, encouraging their active participation as well as promoting critical and creative thinking (Anghelo Josué et,al, 2023). For example, incorporating Augmented Reality and Virtual Reality (AR/VR) tools in language classrooms allows studentsto immerse in real-world situations in controlled settings, allowing them to engage in realistic conversations without the fear of making mistakes in front of classmates (Zhao, Ren & Cheah, 2023).

Through virtual scenarios like navigating a restaurant, students can interact with virtual characters, order food, or ask for directions, mimicking authentic conversations which aids them in using vocabulary and phrases appropriately within context. In addition, online discussion platforms such as Google Docs or Padlet allow students to share ideas,provide feedback, and practice their writing and speaking skills without the need for physical meetings. Besides fostering teamwork, these interactive applications encourage communication and enhance their language abilities in a meaningful and engaging manner while working together on language projects. For instance, they can collaborate on writing stories or creating presentations in the target language, providing them with opportunities to exchange ideas, give feedback, and practice their writing and speaking skills. These interactive online tools not only promote active participation but also help learners develop their linguistic abilities in meaningful and engaging ways.

Alongside these technological advancements, one of the most innovative pedagogical approaches which begins to gain popularity is the Flipped Classroom (FC) model (Zheng et.al). In the traditional teaching method, instruction typically occurs during class time, with the teacher delivering lectures and students passively receiving information. Homework is usually assigned at the end of the lesson as independent reinforcement practice, often with limited teacher guidance. However, in FC model, students first access instructional content at home through recorded instructional videos and other online resources,allowing them to learn at their own pace. Meanwhile, class time is utilized for hands-on activities, discussions, and collaborative projects that reinforce and deepen their understanding of the material. This approach not only optimizes classroom time but also promotes student accountability, fostering a more interactive and learner- focused environment. When combined with technology-assisted instruction, the flipped classroom approach enhances student engagement and motivation, offering a more tailored learningexperience that meets the needs of 21st-century learners. Class time is then dedicated to hands-on activities,discussions, and collaborative projects that reinforce and deepen their understanding of the material. Incorporating flipped classroom approach with technology-assisted instruction can enhance student engagement and motivation, enabling a more personalized learning experience that aligns with the demandsof the 21st century.

1.2 Research Problem

Grammar is the means to understand how language works (Saaristo, 2015). English grammar, specifically the simple present tense, acts as an important foundation for effective communication in the language. Since it is normally the first type of tenses introduced to English language learners, mastering simple present tenseenables them to express habitual actions, routines, general truths, and facts that occur in daily life. As the most widely used type of tense representing universal facts from earth to the entire universe, be it in writtenor spoken communication, mastering simple present tense is, without doubt, morechallenging than mastering other tenses. However, possessing a strong competence in this tense positivelyimpacts the grasping of othertenses, while having a weak grasp in it can negatively affect grasping the others. Therefore, mastering the simple present tense not only improves a learner's capacity to participate in smooth and natural conversationsbut also increases their confidence in speaking.

However, in a traditional grammar instruction, the teacher primarily control the classroom by delivering theconcepts while students listen passively (Nazmi Dinçer , Mustafa Polat, 2022). To reinforce their understanding, students are typically expected to practice independently at home which limits the opportunities to engage actively with the grammar rules and to apply the concept in meaningful ways. This traditional grammar instruction often leads to passive learning. Research indicates that passive learning, prevalent in traditional grammar instruction, can impede students' ability to retain and effectively apply grammatical rules in real-life contexts (Nazari & Xodabande, 2020). This challenge has inspired researchers to explore alternative grammar instructional models that foster active learning and greater student participation. One promising approach is the flipped classroom approach, where students first learn the content beforehand at home before the class begins, with the help of recorded instructional videos as well as other online resources, and further reinforce their understanding by engaging in interactive, applicationbased activities during class time. Studies show that the flipped classroom model not only enhances student engagement but also fosters deeper understanding of complex concepts by allowing students to apply what they have learned in collaborative and hands-on activities (Lo & Hew, 2020).

1.3 Research Objective and Research Question

It is for this reason that the current study seeks to examine whether the flipped classroom model canbe effectively applied in the context of teaching English as a second language (ESL), with a specific focuson the simple present tense. The flipped classroom has been successfully implemented in various disciplines, but its potential in language learning, particularly in teaching grammar, remains underexplored. Recent research suggests that the flipped classroom can promote active language use and improve grammar acquisition by giving students more time to practice and receive feedback during class (Jensen et al., 2022). By shifting the instructional component outside the classroom, students have the flexibility to learn grammar rules at their own pace, while class time can be devoted to communicative activities that require the use of the simple present tense in real contexts.

In this study, the researchers aim to explore whether the flipped classroom can enhance student motivation and engagement in learning grammar, as well as improve their mastery of the simple present tense in practical language use. By focusing on future Diploma in TESL students at Kolej Poly-Tech MaraIpoh, this study will provide insights into how this pedagogical model can be adapted in ESL contexts, where students often face additional challenges in mastering grammar. Therefore, two research questions that will guide the researcherthroughout this study are as below.

RQ1: Are there any significant differences between the experimental and control groups in masteringsimplepresent tense using Flipped Classroom Approach?

RQ2: What are students' perceptions of learning the simple present tense through the flipped classroom model?

It is hoped that the findings of this study will provide valuable insights for educators looking to implement innovative teaching methods in ESL contexts and will contribute to the ongoing exploration of effective grammar instruction strategies.

2 LITERATURE REVIEW

The flipped classroom is a new, innovative teaching strategy where lessons are delivered outside the classroom setting using online video lectures prepared by the teacher in advance of the actual class time. These videos are carefully prepared to meet the instructional goals which could enhance learners' competencies in the subject area. It's important to note that these lectures are not limited to videos; audio lectures can also be used as an alternative or supplementary resource (Bergmann & Sams, 2012). Meanwhile, the actual class time which are typically utilized by the teacher to deliver instruction are transformed into interactive workshops where students engage in collaborative activities designed to deepentheir understanding of the materials, they watch beforehand. This strategy fosters active learning and studentengagement, allowing students to apply what they have learned earlier to real-life contexts. Thus, the teacher's role shifts from the sole knowledge provider to that of a facilitator or coach, encouraging selfdirected learning. This shift not only improves students' grasp of the subject matter but also develops their critical thinking and problem- solving skills, essential competencies in today's dynamic learning environments (Bye, 2017).

The simple present tense is a cornerstone of English grammar, representing everyday actions, habits,and universal truths. However, finding from numerous studies reveal that traditional grammar instructional methods are often carried out using teacher-centred instruction, where the teacher utilizes the scheduled class time explaining the target grammatical rules, and students are expected to practice independently at home to strengthen their understanding. This approach can lead to passive learning, where students struggleto apply grammatical concepts in real-life communication (Nazari & Xodabande, 2020). In contrast, the flipped classroom model aims to foster greater active learning by allowing students to interact with the material before the class time and further engage in meaningful practice during class time. This could eventually lead to improved mastery for effective real-life communication.

One of the many advantages of the flipped classroom in teaching grammar is that it provides flexibility for the students to learn the complex grammatical rules at any time and at their own pace. According to Lo and Hew (2020), the flexibility of accessing instructional content outside of class allows students to watch the prepared instructional videos and review lessons as many times as necessary so that before attending the scheduled class, students have a basic understanding of the grammatical concept, enabling them to focus on practical application during class time. With regard to simple present tense, students can study the rules and structures through online videos or exercises, then participate in interactive tasks such as role-playing, sentence construction, or peer discussions during class. This practical approachfosters deeper understanding and retention of grammatical rules, as students are actively using the languagein meaningful contexts.

Research by Mehring (2017) supports the effectiveness of the flipped classroom in grammarinstruction, noting that students who participated in a flipped classroom setting demonstrated higher levelsof engagement and understanding compared to those in traditional classes. The study highlights that studentfelt more prepared for class discussions and were more confident in their ability to use the simple present tense correctly in both spoken and written communication. The opportunity to practice grammar in an interactive setting, with real- time feedback from teachers and peers, was found to significantly improve students' grammatical accuracy. However, the success of the flipped classroom model in teaching grammar is not without its challenges. For instance, students must take responsibility for their learning by actively engaging with the pre-class materials, which can be a significant adjustment for those used to more teacher-led instruction. Research by Chen Hsieh, Wu, and Marek (2017) found that while the flipped classroom enhanced student motivation and autonomy, some students initially struggled with the independent learning aspect, particularly if they lacked self- discipline. Nonetheless, when students adapted to the flipped classroom model, they were able to benefit from the increased opportunities for active learning and peer interaction. In a more recent study, Akçayır and Akçayır (2018) examined the flipped classroom's impact on English language learners and found that it improved not only their grammatical knowledge but also their overall language skills, including speaking and writing. The study emphasized that the flipped classroom encourages collaborative learning, which is critical in language acquisition. For example, students workingtogether on grammar-based tasks such as constructing sentences in the simple present tense were able to correct each other's mistakes, thus reinforcing their learning through peer support. This collaborative environment fosters a deeper understanding of grammatical rules by encouraging students to apply their knowledge in real-world communication scenarios. Another key benefit of the flipped classroom is its capacity to integrate technology, which can furtherenhancestudents' engagement with grammar lessons. According to recent findings by Jensen et al. (2022), incorporating digital tools such as interactive quizzes, videos, and grammar games within the flipped classroom framework can make learning more enjoyable and interactive. These tools not only help students grasp the rules of the simple present tense but also allow them to apply what they have learned through simulations and practice exercises. The use of technology thus plays a crucial role in supporting the flipped classroom approach, as it provides students with varied resources to reinforce their learning both inside and outside of the classroom.

In conclusion, the flipped classroom model has demonstrated significant potential in improving the effectiveness of teaching the simple present tense. By enabling students to engage with instructional contentattheir own pace and use class time for interactive practice, the flipped classroom promotes active learning, enhances student engagement, and improves grammatical accuracy. However, the success of this model relies heavily on students' ability to manage their learning outside of class and the effective integration of technology to support their grammar acquisition. As research continues to explore the benefits and challenges of the flipped classroom, its application in language learning, particularly in teaching grammar,remains a promising area for further investigation.

3. METHODOLOGY

3.1 Research Design

This research adopts a mixed-methods approach, integrating both quantitative and qualitative designs to examine the effectiveness of the flipped classroom in teaching the simple present tense at Kolej Poly-Tech Mara Ipoh. By integrating both approaches, this study provides comprehensive in-depth understanding of theimpact of the flipped classroom model on students' learning outcomes, engagement, and overall learning experience. The quantitative aspect concentrates on measuring students' performance through tests and questionnaires, while the qualitative component delves into students' perceptions on the effectiveness of flipped classroom in helping them grasping the understanding of simple present tense. This dual approach provides a well-rounded evaluation of the flipped classroom's effectiveness in grammar instruction.

3.2 Quantitative Design

The quantitative aspect of this study seeks to examine the effectiveness the flipped classroom grammar instruction is in enhancing students' mastery in simple present tense. A quasi-experimental research design was employed, involving two distinct groups of participants comprising first, the control group, which received traditional grammar instruction, while the second group, the experimental group, wastaught using flipped classroom method. Each group comprised 36 future Diploma in TESL students from Kolej Poly-Tech MARA Ipoh. The intervention lasted for six weeks, ample enough for students to adapt tothe teaching methods and for meaningful data to be collected.

By comparing the outcomes between these two groups, the study seeks to determine whether flipped classroom grammar instruction works more effective in helping the students mastering the simple present tense compared to traditional instruction. The findings from this study offers valuable insights into how instructional methods influence grammar learning, potentially informing future curriculum design and teaching practices.

Both groups underwent a pre-test at the beginning of the study to measure their basic understanding of the simple present tense. The experimental group then received instructional materials, such as video lessons, to study at home, while class time will be utilized for active, hands-on activities to reinforce their understandingon the grammar concept they just learned. On the other hand, the control group received the typical conventional instruction, with grammar rules explained during class and homework assigned as reinforcement activity. A post-test will be administered to both groups after the intervention to measure any changes in students' performance. The pre- and post-test scores will be analysed using statistical methods to determine if there is a significant difference in the learning outcomes between the two groups.

3.3 Qualitative Design

The qualitative aspect aims to explore the students' perceptions of the students involved in the flipped classroom. A case study approach will be adopted, focusing on in-depth insights from participants within theflipped classroom group.

To address the second research question of the study, a set of questionnaires adapted from Bell (2015)and Johnson (2013) was administered to 10 pupils in the experimental group. These questionnaires were designed to gather detailed insights into the students' experiences and perceptions of learning the simple present tense through the flipped classroom approach. The adaptation of Bell and Johnson's frameworks allowed the studyto focus on both cognitive and affective domains, assessing how the flipped classroom method impacted students' understanding, engagement, and overall learning experience engagement during lessons, and their perceptions of the flipped classroom model compared to traditional teaching methods. Additionally, it aimed to identify how this teaching method influenced their ability to apply the simple present tense in real-life situations. The data collected from the experimental group providedvaluable feedback on the effectiveness of the flipped classroom approach, offering a nuanced viewof its impacton language acquisition and student performance in the context of this grammar topic.

Semi-structured interviews was also conducted with a purposive sample of students from the experimental group. These interviews will delve into participants' experiences with the flipped classroom model, their perceptions of its benefits and challenges, and their views on how it affected their understandingof the simplepresent tense. The interviews will be audio-recorded, transcribed, and analysed for emergingthemes related to engagement, interaction, and learning.

3.4 Data Analysis

3.4.1 Quantitative Data Analysis

The pre-test and post-test scores will be analysed using paired sample t-tests to compare the mean scores between the two groups (control and experimental) and to determine if there is a statistically significant improvement in the experimental group. Additionally, descriptive statistics (mean, median, andstandard deviation) will be used to summarize the test scores.

3.4.2 Qualitative Data Analysis

For the qualitative data, thematic analysis will be applied to the interview transcripts. Thematic analysis involves identifying recurring themes and patterns that emerge from the data. The transcripts will be coded using both inductive and deductive coding methods, allowing for the discovery of both predetermined and emerging themes. These themes will then be organized into categories related to studentperceptions with regard to the effectiveness of the flipped classroom model, and any challenges encounteredduring the learningprocess.

By integrating both quantitative and qualitative data, this study will provide a holistic understandingof the effectiveness of the flipped classroom in teaching the simple present tense. The quantitative data willoffer measurable insights into students' learning outcomes, while the qualitative data will provide deeper insight into the experiences and perceptions that may influence these outcomes.

4. FINDINGS AND DISCUSSION

4.1 Quantitative Analysis

This section interprets the quantitative data gathered from the study on the effectiveness of the flipped classroom model in teaching the simple present tense.

4.1.1 Pre-Test Versus Post-Test

The first quantitative analysis focused on comparing the pre-test and post-test scores of two groupsof studentsbefore and after the implementation of the flipped classroom technique. The results of the pretestand post-testof the control group are summarised in Figure 4.1.

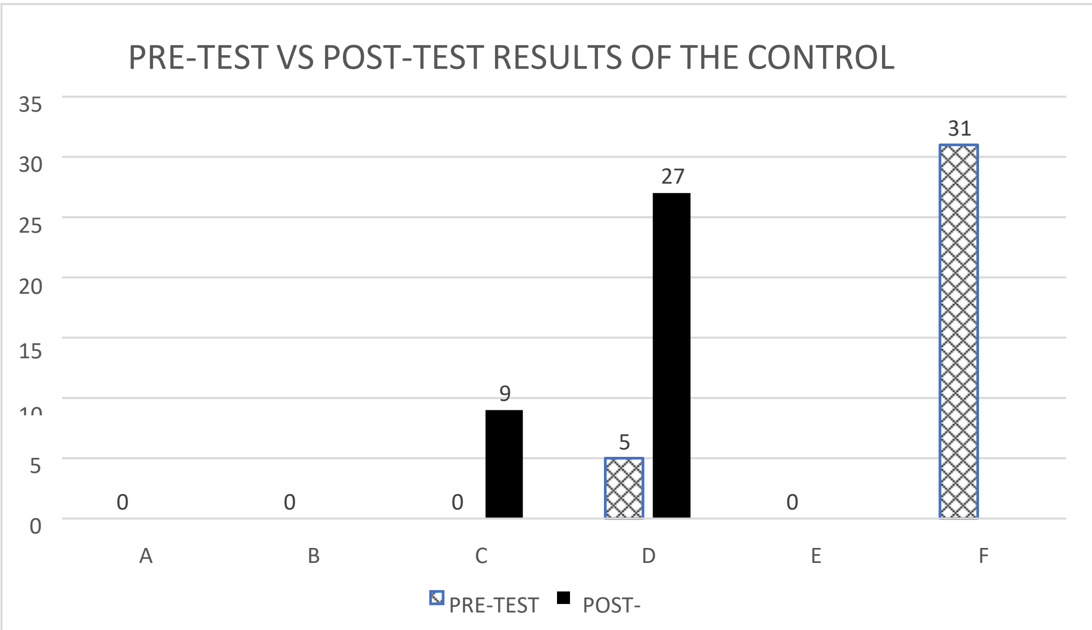

Figure 4.1. The results of the pre- and post-test of the control group.

Before the intervention using the flipped classroom approach, the control group showed significantstruggles with the simple present tense, as reflected in the pre-test results. Out of the 36 students, none achieved a gradeA or B. Only 5 students managed to score a grade C, while another 5 received a grade D.The vast majority, 31 students, fell into the lowest performance category, earning a grade F.

After the intervention, the post-test results demonstrated some improvement in the control group. While no students advanced to grade A or B, there was a noticeable shift in performance. The number of students achieving a grade C increased from 5 to 9, and those with a grade D rose sharply from 5 to 27. Importantly, no students remained in grade F, indicating a positive, if limited, impact of the teaching approach, even though most students still fell in the lower grade range.

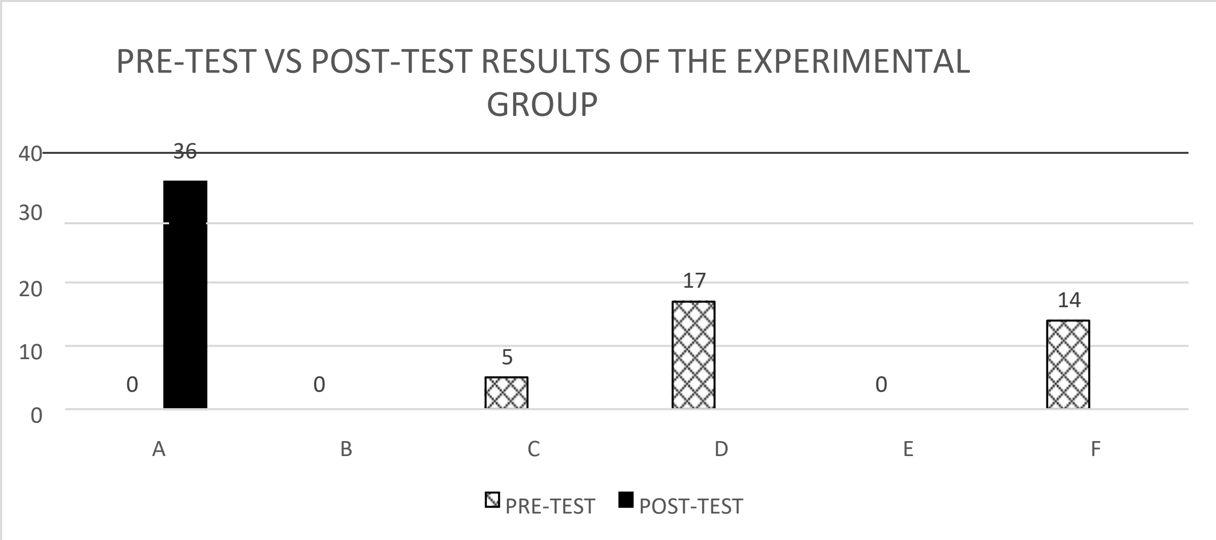

Figure 4.2. The results of the pre- and post-test of the experimental group.

The pre-test results of the experimental group, conducted before the intervention using the flipped classroom approach, revealed that none of the students achieved Grade A or B. Five students managed to score a Grade C, indicating a basic but incomplete understanding of the simple present tense. The majority of the students, 17 in total, scored a Grade D, reflecting a below-average grasp of the topic.

Moreover, 14 students received a failing grade of F, showing a significant lack of knowledge ormisunderstanding of the simple present tense.

However, after the intervention, which involved using the flipped classroom method for teaching, the post- test results indicated a remarkable improvement. Thirty-six students achieved a Grade A, representing excellent mastery of the simple present tense.

4.1.2 Normality Test Results

Table 4.1. The result of the Normality Test

Tests of Normality

Group		Kolmogorov-Smirnov[a] Statistic	df	Sig.	Shapiro-Wilk Statistic	df	Sig.
Score on Test Before	Class 1	.242	36	.000	.886	36	.001
	2	.229	38	.000	.896	38	.002
Score on Test After	Class 1	.438	36	.000	.580	36	.000
	2	.410	38	.000	.648	38	.000

To obtain the result of the normality test, both the Kolmogorov-Smirnov and Shapiro-Wilk tests were administered. The p-values for all groups showed less than 0.05, which indicates that the data was not normally distributed. Given the violation of the normality assumption, non-parametric tests were employed: the Wilcoxon Signed-Rank Test to compare paired pre-test and post-test scores, and the Mann-Whitney U Test for comparing independent samples.

Wilcoxon Signed-Rank Test

The Wilcoxon Signed-Rank Test generated a p-value of less than 0.05 (p=0.000), which led to the rejection of the null hypothesis. This implies a significant difference between the pre-test and post-test scores, assuring that the flipped classroom method had a measurable effect on student performance.

Mann-Whitney U Test

The p-value for the comparison of pre-test scores between the two groups was 0.453, indicating no significant difference between the groups' baseline performance. This suggests that both groups started with similar levels of understanding before the flipped classroom technique was applied.

The p-value for the post-test scores was 0.000, showing a statistically significant difference between the two groups after the flipped classroom was implemented. This strong evidence suggests that the flipped classroom method significantly improved the performance of the experimental group compared to the control group.

4.1.3 Descriptive Statistics

Table 4.2. Descriptive Analysis

Statistics

		Score on Test Before Class	Score on Test After Class
N	Valid	74	74
	Missing	0	0
Mean		4.65	9.91
Median		5.00	12.00
Mode		5	7[a]
Std. Deviation		1.026	2.597

a. Multiple modes exist. The smallest value is shown

The descriptive statistics as shown in Table 4.2 further support the findings. The average score increased from 4.65 before the flipped classroom to 9.91 after its implementation, demonstrating clear improvementin student performance. The median also rose from 5.00 to 12.00, indicating that most students performed better after engaging with the flipped classroom technique. The mode shifted from 5 to 7, suggesting that more students scored around 7 after the flipped classroom, compared to the lower scores before. The standard deviation increased from 1.026 to 2.597, reflecting greater variability in student performance afterthe flipped classroom. This wider spread of scores implies that while many students improved, the extent of improvementvaried, with some students performing exceptionally well or poorly.

In summary, the quantitative analysis confirms the effectiveness of the flipped classroom model in enhancing students' mastery of the simple present tense. The significant improvement in both mean and median scores, along with the statistical tests, shows that students benefited from this instructional approach. However, the increased variability in scores suggests that some students may require additional support to fully benefit from the flipped classroom method. Overall, the findings highlight the potential ofthis pedagogical approachto boost language learning outcomes.

4.3 Qualitative Analysis

4.3.1 Results from Questionnaire

A set of questionnaires adapted from Bell (2015) and Johnson (2013) were given to 36 pupils in the experimental group to answer the second research question of this study and the results are shown in Table 4.3 below.

Table 4.3. Analysis of students' perceptions towards Flipped Classroom Approach

No.	Item	Strongly Disagree	Disagree	Not sure	Agree	Strongly Agree
1	Flipped Classroom Approach is more engaging than the lessons I had before.	0.00% 0	0.00% 0	0.00% 0	33.00% 12	67.00% 24
2	Flipped Classroom Approach has improved my mastery of simple presenttense.	0.00% 0	0.00% 0	0.00% 0	50.00% 18	50.00% 18
3	I am interested to acquire simple present tense in Flipped Classroom Approach.	0.00% 0	0.00% 0	0.00% 0	55.00% 20	45.00% 16
4	I like to learn at home and do the "homework" in the classroom.	00.00% 0	0.00% 0	0.00% 0	44.00% 16	56.00% 20
5	I could study at my own pace in FlippedClassroom Approach.	0.00% 0	0.00% 0	0.00% 0	33.00% 12	67.00% 24
6	Flipped Classroom Approach encourages me to work with my classmates actively.	0.00% 0	0.00% 0	0.00% 0	42.00% 15	68.00% 21
7	I communicated with my teacher more often in Flipped Classroom Approach.	0.00% 0	0.00% 2	0.00% 0	55.00% 20	45.00% 16
8	I was able to apply what I have learnt in the Flipped Classroom Approach into real life settings.	0.00% 0	6.00% 2	0.00% 0	56.00% 20	38.00% 14
9	I needed academic and technical assistance in Flipped Classroom Approach.	31.00% 11	19.00% 7	0.00% 0	25.00% 9	25.00% 9
10	Overall, I prefer learning simple present tense via Flipped Classroom Approach compared to traditional approach.	0.00% 0	0.00% 0	0.00% 0	42.00% 15	58.00% 21

Table 3 presents the analysis of the survey results for the flipped classroom approach in teaching the simplepresent tense reveals several key insights:

Engagement: A significant majority of the students (67%) strongly agreed that the flipped classroom approach was more engaging than previous lessons, while 33% agreed. This indicates that students found the new method more interactive and stimulating compared to traditional approaches.

Mastery Improvement: Exactly half of the students (50%) strongly agreed, and another 50% agreed that the flipped classroom approach helped improve their mastery of the simple present tense. None of the students disagreed or expressed uncertainty, demonstrating a unanimous perception of its positive impact on their learning.

Interest in Learning: When asked about their interest in learning the simple present tense through the flipped classroom, 55% of students agreed, while 45% strongly agreed. This suggests a high level of enthusiasm forthe learning method among the majority of students.

Learning Preferences: More than half of the students (56%) strongly agreed that they enjoyed learning at home and completing "homework" in class, with 44% agreeing. This reflects a favourable view toward the flipped classroom model, where students prepare at home and apply their learning in the classroom.

Self-Paced Learning: A majority of students (67%) strongly agreed that they were able to study at their own pace in the flipped classroom, while 33% agreed. This suggests that the flipped model provided students withflexibility and control over their learning process.

Collaboration with Classmates: About 68% of students strongly agreed, and 42% agreed that the flipped classroom encouraged active collaboration with classmates. This suggests that the approach fostered a collaborative learning environment.

Communication with Teacher: When asked about communication with their teacher, 45% strongly agreed, and 55% agreed that they communicated more frequently in the flipped classroom, highlighting an increasedlevel of interaction.

Real-Life Application: A total of 38% strongly agreed, and 56% agreed that they were able to apply what they learned in real-life situations. However, 6% of students disagreed, indicating a slight divide in how effectively students could relate their classroom learning to practical use.

Ned for Assistance: Notably, 31% of students strongly disagreed, and 19% disagreed that they needed academic and technical assistance in the flipped classroom, suggesting that a significant portion of students felt confident in navigating the approach independently. However, 25% of students agreed and 25% strongly agreed that they required assistance, reflecting some variability in support needs.

Overall Preference: Finally, 58% of students strongly agreed, and 42% agreed that they preferred learning the simple present tense through the flipped classroom approach compared to traditional methods. This demonstrates an overwhelming preference for the flipped classroom method over conventional teaching strategies.

In summary, the results indicate strong student engagement, improved mastery, and a clear preference for the flipped classroom approach in learning the simple present tense. Despite some students needing assistance, most felt it provided a flexible, interactive, and effective learning environment.

4.3.2 Results from the Semi-structured Interview

To delve into students' experiences and perceptions of learning the simple present tense using the flipped classroom model, ten students were selected for individual semi-structured interview. The purposeof these interviews was to gather some in-depth insights into how the flipped classroom impacted their understanding of the grammatical concept, their comfort in learning, and the overall learning process. All interviews were transcribed verbatim and analysed using thematic analysis. Several key themes emerged from the data, highlighting students' deeper engagement with the material, enhanced learning experiences,and strengthenedmastery of the simple present tense.

(I) Deeper Understanding of the Simple Present Tense

One of the prominent themes that emerged from the interviews was that students felt they had gained a deeperunderstanding of the simple present tense. All five participants indicated that watching video lessonsbefore class allowed them to digest the rules at their own pace. This independent learning phase gave themtime to reflect on the content, leading to more productive classroom activities. Instead of struggling to comprehend new material in class, students arrived with a foundational knowledge, ready to apply and reinforce their understanding through interactive tasks. As one student remarked, “I could really focus on the rules at my own pace, and when I came to class, I was ready to practice, which made me understand thesimple present tense much better.”

(ii) Comfortable Learning in Their Own Space

The theme of comfort in learning at their own pace and space also emerged as a significant factor. The flexibility of the flipped classroom model allowed students to study in a more relaxed and personalized environment, which contributed to their overall comfort. Several participants mentioned that they appreciated the ability to pause, rewind, and revisit video lessons as needed, something they couldn't do during traditional in-class instruction. This flexibility helped them feel more in control of their learning process. A student mentioned, “I liked being able to learn at home. I could watch the video more than onceand pause it when I didn’t understand, which made learning grammar less stressful.”

(iii) Interactive and Fun Reinforcement Activities

Another recurring theme was the interactive and enjoyable nature of classroom reinforcement activities. Oncethe students had reviewed the content on their own, class time was devoted to activities that allowed them toapply their knowledge in meaningful and collaborative ways. The students consistently noted that the flipped classroom approach made learning fun and engaging. Group discussions, sentence constructiongames, and role-playing activities were mentioned as effective tools for reinforcing the simple present tense. One participant shared, “The class activities were fun and interactive. I felt like I was really learning, not just listening. It made using the simple present tense more natural.”

(iv) Strengthened Mastery of the Simple Present Tense

Lastly, all five participants expressed that their mastery of the simple present tense was strengthened as a result of the flipped classroom model. They noted that being able to apply the rules during class, rather than simply memorizing them, helped solidify their understanding. The interactive nature of the lessons, combined with the opportunity to practice in real-time, contributed to their increased confidence in using the simple present tense. A student emphasized, “I feel much more confident using the simple present tensenow becauseI practiced it so much during class. The flipped classroom helped me really get it.”

5. CONCLUSION

This study examined the effectiveness of the flipped classroom model in teaching the simple presenttense to ESL students. The quantitative analysis revealed a significant improvement in student performance, as indicated by increases in mean, median, and mode scores, and a greater mastery of the simple present tense post-intervention. The qualitative data further highlighted students' positive perceptions, including a deeper understanding of the grammar concept, comfort in learning at their own pace, and increased engagement through interactive activities. Together, these findings demonstrate that the flipped classroomis a valuable instructional approach that enhances both comprehension and practical application of grammatical rules in language learning.

5.1 Limitations

Despite the positive outcomes, the study encountered several limitations. First, the sample size for the qualitative interviews was limited to five students, which may not fully represent the broader student population. Additionally, the variability in student performance, as indicated by the increase in standard deviation, suggests that while some students excelled with the flipped classroom approach, others may haverequired additional support. Finally, the study focused only on the simple present tense, limiting its findingsto a specific grammar point, which might not be fully generalizable to other aspects of language learning.

5.2 Implications for Further Research

Future research should consider expanding the sample size to include a more diverse range of students, which may provide more comprehensive insights into the flipped classroom's effectiveness across differentlearner profiles. Investigating how to provide additional support for students who may struggle with selfdirected learning in the flipped model would also be valuable. Furthermore, exploring the flipped classroom's impact on other grammatical concepts or language skills, such as writing or speaking, could offer a broader understanding of its effectiveness in ESL instruction. Additionally, incorporating longitudinal studies could assess the long-term retention and practical use of grammar rules learned throughthis method.

ACKNOWLEDGEMENTS

We would like to extend our deepest gratitude to all those who have supported us throughout the completion of this research study, The Effectiveness of Flipped Classroom in Teaching Simple Present Tense: A Case Study in Kolej Poly-Tech MARA Ipoh. First and foremost, we express our sincere appreciation to Kolej Poly- Tech MARA Ipoh for providing us with the opportunity and resources to conductthis research. We are particularly grateful to the students and faculty members who participated in and contributed to this study. Their cooperation and input have been invaluable in shaping the findings of our research. A special thanks goes to our colleagues, Nurul Yasmin Mohamad Yusof, Mardhiyah Ridzuan, Nurfaizura Fazana Mohammad Noor, and Hamizah Osman, for their continuous support, insightful feedback, and collaboration throughout the research process. Your expertise and dedication have been essential in the success of this project. Lastly,we extend our gratitude to our families and friends for their unwavering encouragement and understanding, which has motivated us to complete this research. Thank you all for your contributions and support.

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A Feasibility Study of The Digital Gallery Walk Flipped Classroomfor Student Engagement Among Diploma Students

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ABSTRACT

This paper aims to implement a feasibility study of the Digital Gallery Walk Flipped Classroom (Digital GWFC) for student engagement (SE) among diploma students. The Digital Gallery Walk is a presentation method in which students present their digital works. In the Flipped Classroom, students view online lecture videos or notes before class time, complete their work during class time and attend class discussions. The study utilized a quantitative research methodology to evaluate student engagement in the combination of teaching and learning strategies called the Digital Gallery Walk Flipped Classroom. The sample involved were 25 Animation and 26 TESL diploma students of Kolej Poly-Tech MARA Ipoh. The data was obtained via survey methodology and subjected to an analysis procedure utilizing various statistical techniquesincluding descriptive statistics, Pearson's correlation coefficient, independent t-tests and multiple regression analysis. It is found that the implementation of Digital GWFC has a positive impact on student engagement among diploma students mostly in cognitive skills. The study concludes that as higher student engagement isassociated with higher learning outcomes, the Digital GWFC approach can be effective for student learning. Thus, it offers wide market potential for engaging and interactive training experiences. The findings are followed by implications, limitations and directions for future research.

KEYWORDS; gallery walk, flipped classroom, digital gallery walk, digital gallery walk flippedclassroom, student engagement

1 INTRODUCTION

The Sustainable Development Goals (SDGs) and 21st-century education are closely linked, as education is fundamental to achieving the SDGs and addressing contemporary global challenges. The SDGs recognize the transformative power of education to foster economic growth, social inclusion and environmental stewardship. Quality Education is dedicated to ensuring that all students acquire the knowledge and skills needed to promote sustainable development (Leal Filho, Simaens, Paço, Hernandez-Diaz, Vasconcelos, Fritzen & Mac-Lean, 2023). Advancements in technology and innovation (Goal 9) are increasingly seen as crucial for achieving the SDGs. There is growing recognition of the role that digital technologies, data, and innovation can play in addressing global challenges and driving sustainable development. The digital revolution of education has been augmented by the COVID-19 pandemic. Digital tools and platforms are 21st-century education emphasizes skills necessary for thriving in a complex, rapidly changing world. These skills include critical thinking, creativity, collaboration, and digital literacy. Innovative pedagogical approaches, such as project-based learning, experiential learning, and the flipped classroom model, align with the 21st-century education framework and support the SDGs by fostering deeper engagement and practical problem-solving skills (Garg & Agarwal, 2023). The integration of 21st-century skills into education is crucial for advancing the SDGs. By focusing on critical thinking, digital literacy, lifelong learning, and global citizenship, education can contribute significantly to sustainable development. The ongoing efforts to align educational practices with the SDGs reflect a commitment to preparing students for a rapidly evolving world and addressing global challenges effectively.

The flipped classroom is an innovative pedagogical approach that has gained prominence in 21st- century education. It represents a significant shift from traditional teaching methods, leveraging technology to enhance student learning and engagement. The flipped classroom model aligns with 21st-century education principles by fostering active learning, collaboration, and personalized instruction (Latorre-Cosculluela, Suárez, Quiroga, Sobradiel-Sierra, Lozano-Blasco & Rodríguez-Martínez, 2021). While it presents opportunities for enhancing student engagement and learning outcomes, the flipped classroom also poses challenges related to technology access, content creation and effective assessment. Continued research and practice are necessary to refine this approach and maximize its benefits in diverse educational contexts.

The Gallery Walk is a dynamic and interactive teaching strategy that promotes active learning and student engagement. It involves students rotating around the classroom to explore and discuss different "exhibits" or stations that display information, ideas, or projects. This approach aligns well with 21st-century education principles, which emphasize collaboration, critical thinking, and hands-on learning. The Gallery Walk is an effective instructional strategy that aligns with 21st-century education principles by promoting active learning, collaboration, and critical thinking (Papasarantou, Alimisi & Alimisis, 2023). Its dynamic, interactive nature makes it a valuable tool for engaging students and enhancing their learning experiences. By thoughtfully implementing and adapting the Gallery Walk, educators can create rich, participatory learning environments that support diverse educational goals.

1.1 The Gallery Walk and Student Engagement

Recent studies have proven that the gallery walk has many positive impacts on students' engagement in various educational settings. The gallery walk approach is considered an active learning strategy where students will be actively participating in the lessons. Insani (2020) claimed that this type of learning had significantly increased the students' engagement specifically in complex courses such as science and mathematics. This approach encourages students to collaborate and work together in small groups changing and sharing ideas among them (Satriani,2022). The researcher also claimed that this approach had changed the pattern of passive learning to active learning where students no longer quietly listen to the information given by the educators instead, they become actively involved during the learning experience.

Other than that, the gallery walk approach inspires students to think and process the information analytically and collectively (Vale & Barbosa, 2021). Lanuza, Hilario, Arroyo & Lara (2022) studied the impact of gallery walk exposure on high school students in mathematics settings. The researchers found that this approach had shown a significant improvement in students' problem-solving skills and theoretical comprehension compared to the traditional lecture-based method. The researchers also claimed that students were able to understand the lessons effectively due to the gallery walk's nature which was able to provide multiple visual and interactive representations of mathematical theories.

In the 21st century, critical thinking and creativity are crucial abilities. Sunarti and Septiana (2019) claimed that the gallery walk creates a dynamic environment for students to cultivate essential skills. It prompts them to thoroughly analyze information, challenge assumptions, and cultivate innovative ideas. In addition, the purpose of gallery walks is to elevate creativity, particularly in the arts and humanities. When the students are allowed to present their work using inventive methods like visual displays, posters, and multimedia presentations, the gallery walk promotes thinking in unconventional ways and the expression of ideas in original ways. This approach may boost students’ creativity and also enrich students' comprehension of the subject matter.

Essentially, the gallery walk approach not only caters to different subjects it also caters to different learning styles. Putri, Kartini & Yuanita (2020) stated that for visual students, gallery walks gave them benefits in terms of the visual materials exhibited at each station. The researchers also added that other learning styles students such as auditory students can actively engage in discussion and listen to their peer’s presentations.

1.2 The Flipped Classroom and Student Engagement

Numerous academic studies have examined the impact of flipped classrooms on various dimensions of student engagement, encompassing behavioural, emotional, and cognitive engagement. According to Alebrahim & Ku (2020), the flipped classroom approach was well-received by students, who found that this method effectively enhanced their engagement, understanding of the lesson, and ultimately led to improved performance and grades. Wong (2024) found the implementation of the flipped classroom model yielded a notable enhancement in calculus proficiency following the intervention, with sustained efficacy observed over time. Consequently, the findings indicate the heightened suitability of the flipped classroom model for the cultivation of cognitive skills. Hence, it is recommended to integrate the flipped classroom model into higher education institutions to enhance students' preparedness for forthcoming challenges in science and technology.

Emotional engagement involves students' attitudes, interests, and emotional responses to learning. A study by Lee and Wallace (2018) found that students in flipped classrooms reported higher levels of interest and motivation, as the in-class activities were more interactive and engaging than traditional lectures. However, the study also noted that the success of a flipped classroom in enhancing emotional engagement depends heavily on the quality of the pre-class materials and the design of in-class activities. The analysis of student responses provides evidence of the enthusiasm exhibited by students towards the learning activities carried out in the flipped classroom. This was attributed to their existing knowledge acquired before the class sessions. Consequently, students demonstrated a heightened readiness to engage in class discussions, eagerly participated in the learning tasks, and showcased the ability to pursue independent study (Sunway, Arapah &Muth'im, 2024).

Cognitive engagement refers to the investment in learning and the willingness to exert the necessary effort to comprehend complex ideas. The research by Say and Yildirim (2020) demonstrated that flipped classrooms encourage deeper cognitive engagement, as students are required to actively process and apply the knowledge, they acquired from the pre-class materials. Hao, Tian, Mohd, Hai, Ge & Cheng (2024) found their study suggested that both project-based learning and flipped classrooms had a substantial influence on enhancing critical thinking and fostering creativity among students. Furthermore, the combination of project- based and flipped classrooms exhibited an even more pronounced effect on promoting critical thinking skills and nurturing creativity, underscoring its potential as a highly effective instructional method for reshaping the current educational curriculum and teaching practices. This comprehensive study adeptly incorporates a variety of engaging and interactive classroom activities, designed to enhance critical thinking, problem- solving, and decision-making abilities among students in the higher vocational education context. Furthermore, it offers comprehensive and practical guidance to educators and instructional leaders, outlining effective strategies to identify, nurture, and develop the diverse talents and aptitudes present within this educational domain.

1.3 Problem Statement

The flipped classroom model aims to enhance student engagement and learning outcomes by shifting the focus of classroom time from passive to active learning. However, despite its potential advantages, the implementation of flipped classrooms presents several challenges and barriers that can impact its effectiveness. Studies have highlighted that student motivation and readiness are critical factors influencing the success of flipped classrooms (Zhong, 2024). Also, Assessment and Evaluation of the flipped classroom model can be complex. Traditional assessment methods may not adequately capture the benefits of this approach, such as improved problem-solving skills or a deeper understanding of content. Therefore, developing appropriate evaluation tools and methods is crucial for measuring the impact of flipped classrooms on student learning outcomes (Zhu, Zhu & Hua, 2024).

The gallery walk is an interactive instructional strategy to encourage active participation, critical thinking, and engagement among students. Despite its advantages, the implementation of gallery walks in educational settings presents several challenges that can affect their effectiveness and the overall learning experience. The gallery walks rely on student participation in presenting and discussing their work. However, not all students may equally engage in these activities, leading to uneven contributions and varying levels of interaction. Research has shown that student motivation and engagement can significantly impact the success of the gallery walks, with some students remaining passive or disengaged during the process (Qi, 2023). The gallery walks may inadvertently reinforce existing disparities in student participation and voice. Students with less confidence or those from marginalized groups may struggle to contribute equally, potentially affecting their learning experience and outcomes (Cook-Sather, 2022). There are primary issues associated with the implementation of the gallery walks, emphasizing the need for strategies to address engagement, facilitation, feedback quality and inclusivity. Addressing these challenges is crucial for optimizing the effectiveness of the gallery walks as a pedagogical tool.

The gallery walk can be implemented either physically, with students presenting their work in a physical space, or digitally, using online platforms. Both methods have different characteristics and challenges. Understanding the differences between physical and digital gallery walks can help educators choose the most effective approach for their specific context. Physical gallery walks can foster more personal connections and immediate feedback among peers but the space constraints may limit the number of respondents and the extent of interactions (Noble, 2021). Physical limitations and accessibility issues may affect students with disabilities or those who cannot attend in person. Meanwhile, digital gallery walks allow for broader participation and can be accessible from various locations, overcoming physical space constraints. They also enable asynchronous participation, accommodating different schedules and time zones. Digital platforms facilitate wider access and flexibility, though they also note potential challenges in maintaining engagement and interaction quality (Jiang & Stylos, 2021). This comparison provides a comprehensive view of the strengths and challenges associated with physical and digital gallery walks, helping educators make informed decisionsbased on their specific needs and contexts.

1.4 Research Objective

To implement a feasibility study of Digital Gallery Walk Flipped Classroom (Digital GWFC) for studentengagement (SE) among diploma students, the following are the research objectives:

i. To examine the relationship between SE in Digital GWFC influence the Course Learning Outcome 2(CLO2)

ii. To determine how the dimension of student engagement; behavior, cognitive or emotional influenceCLO2

iii. To compare the difference in SE between Semester 1 TESL students and Semester 6 Animationstudents in CLO2.

1.5 Research Question

The following are the research questions implement a feasibility study of Digital Gallery Walk FlippedClassroom (Digital GWFC) for student engagement (SE) among diploma students:

i. What is the relationship between SE in Digital GWFC influence CLO2?

ii. How does the dimension of student engagement; behavior, cognitive or emotional influence CLO2?

iii. Is there any difference in SE between Semester 1 TESL students and Semester 6 Animation studentsin CLO2?

2 METHODOLOGY

This feasibility study of the Digital GWFC for student engagement among diploma students is purely quantitative which implements the causal research design. According to Hair, Sarstedt, Ringle and Gudergan(2018), the research design selected will (i) provide relevant information on the research questions and hypotheses and (ii) complete the job efficiently. The formulation phase of the research process is based on the choice of research design. The quantitative research design does not consider the opinion of the researcher, although there is some influence of the researcher in the research question and objective (Hair et al., 2018). The advantage of using quantitative research design over qualitative is that it is more useful in theory testing and has more structured data collection techniques and objective ratings.

Descriptive research describes a situation by providing measures in which descriptive statistics is usedfor data analysis. Finally, the causal research design. Causal research tests whether one relationship means that a change in one event led to a corresponding change in another. In other words, it tests how a change in xmakes a change in y. This type of research design must have theoretical support, require precise decisions andplanning, and is the most complex (Hair, Risher, Sarstedt & Ringle, 2019). In the context of this study, a causalresearch design will be implemented, and data will be collected cross-sectional. This research design is used to answer research questions and achieve the objectives.

2.1 Research Framework

According to learning styles theories, individuals' unique learning styles with matching learning experiences enhance academic achievement. Derived from Lewin, Dewey and Piaget, Kolb's theory of experiential learning developed Kolb's model of learning styles (Bishop & Verleger, 2013). Kolb's four learning styles are given by the permutations of two embedded dimensions: perception and processing in a universal learning cycle.

The Triple E Framework measures how technology can help lecturers to select tools and design learning experiences thus further guiding students to the tools to meet and exceed learning goals (Kolb, 2017). The framework is based on three factors that lecturers need to be clear about when using technology to further the goals of the lessons. As an engagement factor, technology allows students to focus on the learning process. As an enhancement factor, technology allows students to develop more understanding of concepts and ideas. Meanwhile, as the extension factor, technology allows students to connect learning and their life experiences.

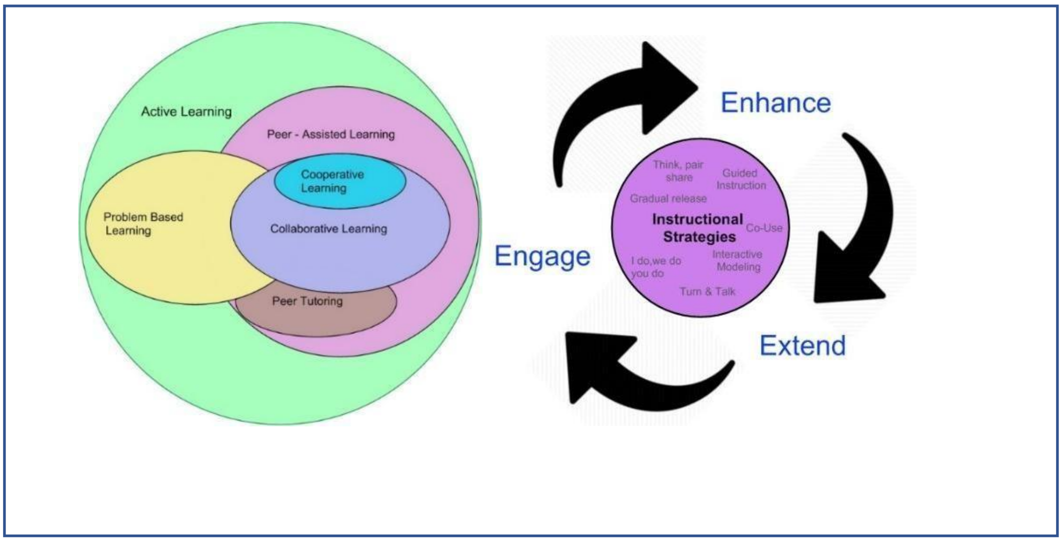

Figure 1: Student-Centered Learning Theories + Triple E Framework. (Bishop & Verleger, 2013; Kolb,2017)

Thus, this feasibility study of the Digital GWFC examines how student engagement among diploma students influences learning outcomes.

2.2 Research Sample

Researchers surveyed respondents in their class because they are readily available and easily accessible (Doebel & Frank, 2024). Furthermore, it is convenient due to the role of the researchers as the class facilitator, so the access to the respondents is quick, easy and cost-effective.

A total of 51 diploma students of KPTM Ipoh were selected for this study; consisting of 25 Semester 6 students enrolled in Diploma in Animation (DIA) and 26 Semester 1 students enrolled in Diploma Teaching English as Second Language (TESL), taking MPU2183 Penghayatan Etika dan Peradaban course during session April 2024.

2.3 Data Collection

Table 1 below indicates how the Digital GWFC was administered. In the Flipped Classroom teaching methods, students were assigned to view online lecture videos and learning modules on Topic 5 which is assessed as Course Learning Outcomes 2 (CLO2) before they come to class. During class time, students weredivided into groups and instructed to discuss the given assignment of Topic 5. The group assignment was to upload and present a digital infographic or poster via the Gallery Walk learning strategy under the lecturer's supervision. After class, solutions and feedback were shared for class discussion. For the next sessions, the same method and procedures are followed but with different group members. At the end of the session, the surveys are distributed to the students.

Before	**During**	**After**
View online instructional videos and refer to learning modules.	Present digital work and view other groups'work under the lecturer's supervision.	Solutions and feedback are shared for class discussion.

Table 1: Digital GWFC Procedure

The research instrument in this study is developed from the theories in the conceptual framework. The survey is divided into four parts; (i) respondents' details such as class section, program, gender and year of study; (ii) measurement for student engagement and the items are adapted from Suppasetseree, Kumdee & HoMinh (2023). Student engagement is measured based on three dimensions - behavioural, cognitive, and emotional. The other part of the instruments is; (iii) learning outcome which the measurement is based on CLO2 based on the document syllabus of the MPU2183 course provided by Kolej Poly-Tech MARA. The last one is (iv) measurement for Digital GWFC which is adapted from Keong, Kian & Aquino (2016).

The measurement scale for the research instrument is a 10-point scale. The normal practice for business research uses a 5-point scale or a 7-point scale for construct measurement. However, the use of a 10-point scale is on the rise since the more points there are, the more precise the agreement or disagreement level is recommended (Hair, Celsi, Money, Samouel & Page, 2016). Dawes (2008) proved that the measurement usinga 10-point scale has better variance results compared to a 5-point and 7-point scale. It also proved that the 10- point scale provided more variance responses in the study when the respondents were given the more-point scale.

2.4 Data Analysis

Data was analyzed through descriptive analysis and inferential analysis. Before the analysis of the data, it went through data screening to weed out the unengaged responses and missing values. Before the data can proceed to the analysis, the normality test and reliability analysis will be implemented. This is to ensure the normality of the data to use parametric statistical analysis. Parametric statistical techniques are chosen due tothe normal distribution of variable data (Pallant, 2020). The normality test used the Kolmogorov-Smirnov and

Shapiro-Wilk Test, where p-value < .05.

Demographic variables such as class, program and gender were analyzed with simple descriptive analysis for frequency and percentage. Data analyses are represented based on the research objectives. In inferential analysis, Pearson correlation was used to achieve research objective 1, multiple regression analysis to achieve research objective 2 and t-test to achieve research objective 3. All the tests will be analyzedusing IBM SPSS 23.

3 RESEARCH FINDING

3.1 Normality Test

Table 2 shows the result of the Normality Test for each construct; SE (.011), CLO2 (0.005) and Digital GWFC (0.002). The significant value is not more than .05 thus data are considered normal.

Table 2: Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
SE	.143	51	.011	.934	51	.007
CLO2	.152	51	.005	.935	51	.008
DGWFC	.160	51	.002	.894	51	.000

a. Lilliefors Significance Correction

3.2 Reliability Test

Table 3 shows the result of the Reliability Test for each construct; SE (.854), CLO2 (0.918) and Digital GWFC (0.910). Since the Cronbach's Alpha values for all constructs are higher than 0.70, the data has very good internal consistency reliability.

Table 3: Reliability Analysis

	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
SE	.854	.862	10
CLO2	.918	.920	7
DGWFC	.910	.911	10

4 RESULT AND FINDINGS

4.1 Descriptive Statistics

Descriptive statistics were used to analyze the demographic data of respondents in terms of gender and program enrollment. Table 4 shows that the number of male respondents is 16(31.4%) which is less than female respondents, 35(68.6%). Also included, 49% of respondents enrolled Animation diploma program and 51% are from the TESL diploma program.

Table 4: Respondents According to Gender and Program

		Frequency	Percentage
Gender	Male	16	31.4
	Female	35	68.6
Program	Animation	25	49.0
	TESL	26	51.0
	Total	51	100.0

4.2 Correlation Analysis

Correlation Analysis was used to examine the relationship between SE in Digital GWFC influence the Course Learning Outcome 2 (CLO2). In Table 5, the r-Pearson Correlation coefficient shows that there was a strong positive correlation between student engagement in Digital GWFC ($r = 0.757$, $p < 0.001$). Also shown is a moderate positive correlation between Digital GWFC influence the Course Learning Outcome 2 (CLO2)($r = 0.556$, $p < 0.001$)

Table 5: Pearson Correlation Coefficient

		r -Pearson	p
DGWFC	SE	.757	.000
	CLO2	.556	.000

4.3 Multiple Regression Analysis

Multiple regression analysis was used to determine how the dimension of student engagement; behavior, cognitive or emotional influence CLO2. The assumptions are normal plots of regression standardized residual shows the normality and data are continuous as explained in the methodology section.

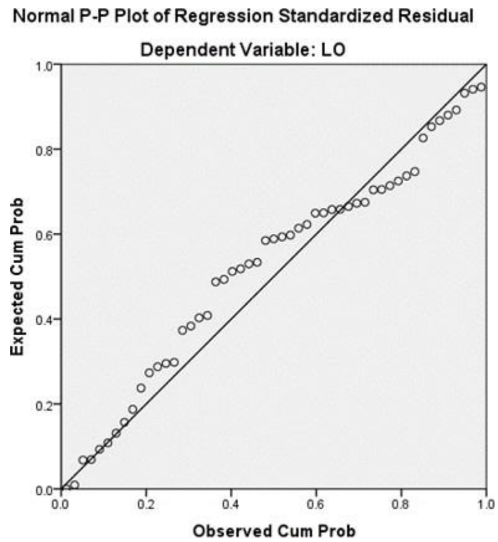

Figure 2: Normality Test for Regression

According to Table 6, the value of the multiple correlation coefficient R is 0.693 can be considered to be one measure of the quality of the prediction of student engagement. R square 0.480 means only 48% of learning outcomes can be explained by the variance Behavior, Cognitive and Emotional.

Table 6: Model Summary of Regression Model

R	R square	Adjusted R square
.693	.480	.447

Table 7 shows the coefficient for the regression model. Based on the result, the p-value of Behavior is

0.373 > 0.05 which is considered insignificant. The p-value for cognitive is 0.007 < 0.05 which is significant. The p-value for emotional engagement is 0.066 > 0.05 is insignificant.

The prediction of learning outcome which is explained by Student Engagement dimensions is as follows:

Prediction of LO = 0.219 Behavior + 0.981 Cognitive +0.646 Emotional

This means that a 1 unit increase in Behavior means a 0.219 increase in LO, a 1 unit increase in Cognitive will be a 0.981 increase in LO and a 1 unit increase in Emotional will increase 0.646 in LO.

Table 7: Coefficients for Regression Model

	B	Std error	Beta	t	Sig
Behavior	.219	.243	.124	.899	.373
Cognitive	.981	.347	.409	2.831	.007
Emotional	.646	.343	.263	1.884	.066

Independent Samples t-test is conducted to compare the difference in SE between Semester 1 TESL students and Semester 6 Animation students in CLO2. Table 8 shows the sig value is 0.654 (> 0.05), assuming equal variances among populations. Based on the Independent Sample T-Test, t = -0.685, df =49 where k> 0.05, there is no significant difference between Animation and TESL programs for student engagement.

	Levene test			T-test		
SE	t	df	Sig (2-tailed)	Mean difference	Lower	Upper
	-.685	49	.497	1.078	-4.242	2.085

5 DISCUSSION

To answer Research Question 1: What is the relationship between SE in Digital GWFC influence CLO2? Based on the analysis, the Pearson Correlation Coefficient revealed that there was a strong positive correlation between student engagement in Digital GWFC (r = 0.757, p<0.001). The analysis also pointed out that the correlation between Digital GWFC and Course Learning Outcome 2 (CLO2) is a moderate positive with the value of (r = 0.556, p <0.001).

The correlation of student engagement in this context involves how actively students interact with the digital content and with each other during the gallery walk. High student engagement typically means students are not just passively consuming information but are critically analyzing, discussing, and reflecting on it. A significant difference from the traditional classroom in four dimensions: freedom of choice, variety of teaching resources, effective learning from peers and a favorable flipped classroom. These findings also indicate that the change in the learning environment affects students' learning attitudes and classmates' relationships (Oh, Chan, Kong & Ma, 2022).

Findings on the Digital GWFC and course learning outcomes are found to be moderately positive. Thismeans that while most of the reviewed studies reported a positive correlation, in a flipped classroom, students are expected to come prepared, which allows for a deeper exploration of topics during class, viewing pre- recorded videos before coming to class enabled students to comprehend course content better and easier (Hava, 2021). The active and reflective learning that DGWFC facilitates engages students in active learning. (Howell, 2021). A digital gallery walk further enhances this by encouraging active engagement with diverse perspectives and materials. Findings also reveal the importance of incentivizing pre-class preparation using infographics and videos, which additionally helped students understand/remember content, and gave confidence about contributing in class.

Next, to answer Research Question 2: How does the dimension of student engagement; behavior, cognitive or emotional influence CLO2? In the examination of the student dimension of student engagement to the CLO2, the variance predetermined are Behavioral, Cognitive and Emotional. It was found that based on the model result of coefficients for regression, the variance of Cognitive is the highest with 0.981 > 0.05 in CLO2.

Cognitive processes play a crucial role in shaping learning outcomes. Innovative approaches such as the Digital GWFC are more effective than the traditional method in terms of using deep learning strategies and increasing the levels of cognitive engagement (Hava, 2021). Cognitive factors such as attention, memory, understanding, metacognition, cognitive load, prior knowledge, and problem-solving skills significantly affect how well individuals learn and apply new information, cognitive judgments are affected directly by learning environments (Tugtekin & Odabasi, 2022). Addressing these factors through targeted strategies can improve learning outcomes.

It is imperative to deliver high-quality classes using a Digital GWFC learning approach to satisfy students' expectations of improving learning outcomes. The relevance for learning also affected students' perceived usefulness of Digital GWFC classes and indirectly influenced their future intention to use it. The results emphasize that students should be given opportunities to recognize the relevance of innovative cognitive learning approaches based on their expected learning achievement (Doo & Bonk, 2021)

Lastly, to answer Research Question 3: Is there any difference in SE between Semester 1 TESL students and Semester 6 Animation students in CLO2? Based on the Independent Samples t-test, the differences in student engagement between TESL Semester 1 students and Animation Semester 6 students in CLO2 valued at p = 0.497 >0.05, at this value there is no significant difference between Animation and TESL programs forstudents' engagement.

What this proves is the Digital GWFC approach can be equated as being universal and may be effectively applied to cross-field courses. Regardless of the nature and the technicality of the said courses. The comparative study between a language-based course (TESL) and a meta-cognitive course (Animation) resulted in no significant difference in students' engagement. The flipped classroom instructional model helps students improve their cognitive learning across a wide-reaching synthesis of currently available interdisciplinary subjects (Yinghui, Yanqiong, MacLeod & Hao Harrison, 2020). Understanding this significance can help tailorthe digital gallery walk experience to better meet the needs and strengths of each group, ultimately enhancingtheir learning outcomes.

5.1 Conclusion

It is found that the implementation of Digital GWFC has a positive impact on student engagement among diploma students mostly in cognitive skills. The study concludes that as higher student engagement is associated with higher learning outcomes, the Digital GWFC approach can be effective for student learning. Thus, it offers wide market potential for engaging and interactive training experiences.

5.2 Research Implication

The flipped classroom model, combined with digital gallery walks, is increasingly seen as a powerful tool to enhance learning outcomes. Several studies emphasize its ability to foster higher-order thinking, collaboration, and personalized learning (1). Higher-order thinking and Critical Reflection, research has shown that flipped classrooms can significantly improve higher-order thinking skills (Samadi, Jafarigohar, Saeedi, et al, 2024). Students engage more deeply with the content through pre-class activities, such as instructional videos and quizzes, which prepare them for in-class discussions and peer feedback. This structure promotes the analysis, evaluation, and synthesis of ideas, central components of higher-order thinking, as highlighted by research on flipped learning in various subjects.

The flipped classroom model facilitates more interactive in-class sessions, allowing students to collaborate on projects, such as digital gallery walks. This approach encourages peer feedback, promoting communication skills as students exchange ideas and critique each other's work. Personalized Learning and Retention, studies have found that flipped classrooms, particularly when supplemented with interactive tools like digital gallery walks, cater to different learning paces and styles (Cevikbas & Kaiser, 2022). This personalized approach allows students to revisit difficult topics outside of class and apply their understanding through interactive activities, improving overall retention. Tasks such as revision becomes more manageable for students to perform on their own.

5.3 Research Limitation

The Digital Gallery Walk in a Flipped Classroom model offers significant benefits in terms of student engagement and learning outcomes but also presents several limitations. Students' lack of engagement with pre-class content can hinder their participation in subsequent class activities. The success of flipped classrooms depends significantly on students' preparatory work (Meyer & Murrell, 2021). Their study emphasizes the importance of strategies to ensure pre-class engagement, such as formative assessments or interactive content. Introverted students may struggle with active participation in class discussions and activities. Students with introverted tendencies might be less inclined to participate in traditional classroom discussions but may engage more effectively through alternative digital tools or smaller group interactions (Molloy, 2021). Digital formats can facilitate distractions and off-task behavior, reducing overall engagement the use of digital devices in educational settings is linked to increased off-task behavior. Their research suggests that integrating structured, interactive activities can help maintain student focus and mitigate distractions (Ravizza, 2021).

The quality of peer contributions can be affected as the effectiveness of a digital gallery walk can be compromised if students produce content of varying quality. Research highlights that inconsistent or outcomes. The quality of student contributions in collaborative settings significantly impacts educational outcomes, especially when the content is shared among peers (Wang, Zheng & Li, 2022). With limited lecturer guidance, the flipped classroom model, which underpins digital gallery walks, shifts some of the instructional responsibilities to students. This reduction in direct lecturer-led teaching can be problematic for students who rely on structured guidance. Students who need more structured support may struggle in flipped environments where real-time lecturer interaction is minimal (Chen & Wu, 2023).

Difficulty in assessing engagement accurately as gauging student engagement during digital gallery walks can be problematic. Some students might superficially engage with content without deep cognitive involvement, which can be hard for educators to detect. Assessing the depth of student engagement remains a significant challenge, and traditional metrics may not fully capture the quality of interaction (Johnson & Moore, 2023). The steep learning curve for digital tools for both educators and students may struggle with the technology required for digital gallery walks. Lecturers may need to dedicate time to training students, and technical issues can interrupt the learning process, potentially reducing engagement and effectiveness. Preparation to create and organize materials for a flipped classroom and digital gallery walk can be very time- intensive. Effective preparation is crucial to align these activities with learning goals, as inadequate planning might lead to misalignment and missed opportunities for in-depth learning.

5.4 Directions for Future Research

Future research on the Digital Gallery Walk in a Flipped Classroom should explore its effectiveness across different disciplines, as teaching strategies may vary by subject. Investigating the impact on various student types, including those with different learning styles and abilities, will help assess the model's inclusivity. Comparative studies should be conducted to analyze student responses to this model in different fields. For example, a study might compare how students in STEM disciplines (such as biology or engineering) and those in the humanities or arts (such as literature or visual arts) engage with and benefit from this model. Key metrics for evaluation would include engagement levels, learning outcomes, and overall satisfaction with the learning experience. Longitudinal studies are needed to determine how well knowledge retention compares to traditional methods. Comparative studies between STEM and humanities students reveal significant differences in engagement and learning outcomes with interactive teaching models (Lee & Kim, 2024).

Research should also examine the role of student motivation and autonomy, as well as challenges related to technology access and digital literacy. Additionally, exploring the impact of peer feedback quality, lecturer facilitation styles, and the model's influence on collaborative skills can provide insights into optimizing this approach. Finally, understanding how cultural and contextual factors affect the model’s effectiveness across diverse educational settings will be crucial for refining and implementing the Digital Gallery Walk more broadly.

ACKNOWLEDGEMENTS

We are deeply grateful to those who have contributed to the success of this research study. First and foremost, our sincere and endless appreciation goes to our superiors; the Deputy Director of Academic and the Head of the Department for their advice, guidance and patience throughout the whole process of this research. Their guidance and expertise were invaluable in assisting us to figure out the direction of our research and bring our ideas to realization. We would also like to express our appreciation to the members of our research team, Dr Siti Noor Azilah Mohd Nawi (supervisor), Norafni@Farlina Rahim, Nurfarahin Afina Fadzil, Mohamad Shafiq Ramli and Nazirul Azwan Ab Rahman, who had given valuable input, perception and support at every single phase of the research. Also, special thanks to the employer of Kolej Poly-Tech MARA Ipoh for allowing the research data collection in the college, without their cooperation in permitting us to collect the data, it will not be possible for the research to be completed. Finally, we would like to thankthe students of Kolej Poly-Tech MARA Ipoh for their cooperation as participants in this research. Their commitment to participate in our research was essential to the triumph of this research. Overall, this research study would be impossible to be done without the support and involvement of so many people. Hence, we are truly thankful to those who have made this research possible and we hope that our findings will build a profound contribution to the field.

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Organizational Values and Generational Values Gaps in MalaysianWorkplaces

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ABSTRACT

This study explores generational differences in workplace and highlighting notable contrasts between individual and organizational values across age groups. It investigates how well these values are communicated and aligned among employees from various generations, providing insights into each group's unique expectations and priorities. Organizations face the challenge of balancing strategic objectives with the need to address generational value gaps, which influence team dynamics and organizational culture. The findings reveal substantial generational differences in how employees perceive respect and acknowledgment of personal values within the organization. For instance, younger employees may prioritize flexibility and innovation, while older generations might value loyalty and stability. The study found little evidence to support the idea that aligning organizational values, fostering seamless intergenerational communication, or achieving value congruence directly increases job satisfaction. This suggests that a one-size-fits-all approach may not effectively enhance satisfaction across different age groups. Instead, the research highlights the importance of recognizing and addressing generational value differences to strengthen communication, teamwork, and cohesion within the organization. By understanding and bridging these gaps, organizations can foster a unified, collaborative, and inclusive workplace that respects the diversity of generational perspectives and enhances overall workplace harmony.

KEYWORDS: Generational Differences, Organizational Values, Value Alignment, Workplace

1 INTRODUCTION

A generation is define as a group of people born within a specific time frame who share similar experiences, values, and attitudes shaped by the events and circumstances of their era (Harper, 2023). According to the Pew Research Center, generations are typically divided into 15-to 20-year spans, providing insight into how our worldviews are influenced by the defining events of our lifetime (USA Today, 2022).

Currently, the workforce includes Baby Boomers (born 1946–1964), who are approaching retirement, Generation X (born 1965–1980), Millennials (born 1981–1995), and Generation Z (born 1996–2012), the newest entrants into the workforce. The presence of multiple generations in the workplace has created human resource management challenges (Singh, 2014; Culpin et al., 2015; Holian, 2015; Guerin-Marion et al., 2018), as organizations now contend with four generations working side by side, each with distinct values and expectations. Generational diversity refers to these differences among employees from various age groups.

With five generations working together today, it's crucial for organizations to understand these generational differences. Each group brings unique expectations and experiences, posing a challenge for managers leading multigenerational teams. The goal is not only to maximize productivity but also to ensure a satisfying work experience for everyone (Knowledge City Newsletter, 2022; Rathi & Kumar, 2023). Why is it essential for management to address a multigenerational workforce effectively? Recognizing each generation's unique characteristics and expectations provides a foundation for addressing the needs and challenges of generational diversity in the workplace.

2 GENERATIONAL VALUES IN A WORKPLACE

Generational value differences are a recognized reality in today's workplace. Modern workplaces are made up of individuals from various generations, each bringing distinct values, attitudes, and experiences that influence their behaviors. These generational differences, while potentially challenging, can also foster strength and innovation when understood and effectively managed (Guerin-Marion et al., 2018). As Picagli (2024) explains, generational differences encompass variations in lifestyles, preferences, habits, and values shaped by the time periods in which individuals were raised. These ideologies can be influenced by factors such as changing international relations, technological advancements, socio-political movements, shared tragedies, prevailing religious beliefs, and more. Although these ideological differences can lead to varied workplace behaviors, a deeper understanding of each generation's perspectives helps managers meet employees' needs more effectively and manage teams more productively. Furthermore, the generational composition of the workplace itself contributes to these value mismatches. With multiple generations - such as Traditionalists, Baby Boomers, Generation X, Millennials, and now Generation Z - working together, each group's unique values and expectations add to the complexity of management.

Generational differences in the workplace can create challenges in communication, work styles, and expectations, but also offer opportunities for innovation, diverse perspectives, and a variety of skills (Guerin-Marion et al., 2018). When managed well, these differences can promote growth and productivity. Rozen (2023) highlights that multiple generations in a team bring unique experiences that improve problem-solving and innovation. Older employees offer industry knowledge, while younger ones bring fresh ideas and tech may lead to misunderstandings if not managed properly.

3 PROBLEM STATEMENT

Demographic shifts are among the least understood but most critical challenges facing organizations today. In the U.S., the “working-age population,” defined as those aged 16 to 64, is shrinking at a rate unseen since World War II. Unlike that era, there is no anticipated “baby boom” to replenish this age group. Generation Z is already three million people smaller than the Millennial generation, and Generation Alpha, following GenZ, is expected to be even smaller (Hennelly and Schurman, 2023). As generations evolve, so too will the characteristics and preferences of workers in the workplace. Data from the Department of Statistics reveals that Gen Z accounted for 26% of Malaysia’s 32.6 million population in 2019, totalling approximately 8.476 million Gen Z individuals in Malaysia alone.

The Covid-19 pandemic led to significant layoffs and downsizing, prompting many older employees to leave the workforce. This wave of departures was also driven by early retirements, age discrimination, and cost-cutting measures. As these experienced workers left, they took with them a wealth of institutional knowledge, skills, and commitment. Many organizations overlooked the potential future challenge: a shortage of younger, experienced replacements post-pandemic.

Employers focusing only on today’s working-age population may struggle to build a stable workforce capable of maintaining operational efficiency, as fewer young people will enter the labor market for at least the next generation (Hennelly and Schurman, 2023). Generational differences in the workplace can sometimes lead to conflicts, but employers can mitigate this by focusing on common goals and shared values. Creating an inclusive culture where all generations feel valued is essential (Miroslavov, 2024). Below is an overview of the five generations currently in the workforce, covering their values, work habits, contributions, and typical management approaches (Herrity, 2022; Purdue Global, 2024). While a multigenerational team offers significant benefits, these differences can, if not properly managed, cause tension within the company culture (Young Entrepreneurial Council, 2019).

According to Appelbaum et al. (2022), Baby Boomers typically respect authority and thrive with clear direction and structure. Generation X, known as "latchkey kids," often grew up in households where they had to be self-reliant due to their parents’ long work hours, leading them to value independence (Taylor, 2018 as cited in Xiong, 2019). Millennials (Gen Y) are known for questioning authority and advocating for fairness, rejecting traditional approaches simply for tradition's sake (Lyon et al., 2005/2006 as cited in Appelbaum, 2022). Gen Z, native to the internet age, is accustomed to fast-paced, always-available information and often navigates both “real-life” and online identities, making them one of the most open-minded and non-conforming generations (Seemiller & Grace, 2019; Janssen & Carradini, 2021). These generational value differences can lead to workplace conflicts. As Gostauta (2010) and Dylag et al. (2013) note, a mismatch between personal and organizational values is a significant factor in occupational burnout. Picagli (2024) suggests that generational value mismatches today stem from varied communication preferences, work styles, and expectations, presenting both challenges and opportunities in managing a multigenerational workforce.

Research on value alignment highlights the importance of bridging gaps in communication preferences, work attitudes, career aspirations, and workplace dynamics, as each generation has distinct preferences, attitudes, and goals. While there are notable similarities in values across generations, some differences remain that require attention (Tourky, Osman & Harvey, 2023). Misalignment in values can negatively impact employee morale, increase turnover, reduce productivity, and even lead to ethical issues (Carucci, 2017; Biriema, 2024).

Alferjany and Rosima (2020) note that five generations coexist in today’s workforce, yet there is limited theoretical research on generational differences, particularly concerning

Generations Y and Z. Traditionalists and Baby Boomers tend to share more similarities in values. Rathi and Kumar (2023) further observe that studies often struggle to identify distinct generational differences in work values and frequently do not clarify whether these differences arise from generational identity or age. This study seeks to examine generational differences and organizational values in the workplace, specifically focusing on strategies for resolving valuegaps across generations in Malaysian organizations.

4 RESEARCH OBJECTIVE (RO) AND RESEARCH QUESTION (RQ)

RO: The objective of this study is to determine the existence of generational differences at theworkplace and propose strategies to solve these problems.

RQ: Do generational differences exist at the workplace and what are the strategies to solve theseproblems?

5 LITERATURE REVIEW

Generational Disparities at Workplace

Generational differences have become a central topic in organizational studies, as researchers explore how varying values, work habits, and expectations across generations shape the work environment. Savdharia (2022) highlights that these differences can lead to both conflicts and benefits in the workplace. Each generation, from Baby Boomers and Generation X to Millennials and Generation Z, brings unique perspectives and expectations that affect organizational dynamics and success. For instance, Baby Boomers often value stability and loyalty, while Millennials and Gen Z are seen as prioritizing flexibility and work-life balance (Picagli, 2024).

Value Alignment and Organizational Harmony

Research underscores the importance of aligning employee and organizational values to maintain workplace harmony. Kinias and Schloderer (2021) note that when personal and organizational values clash, employees may feel dissatisfied and disconnected. This study reveals distinct generational differences in how employees perceive the compatibility of their personal values with organizational values. Clear communication and effective management of these differences are essential for fostering a harmonious work environment.

Communication Across Generations

Research shows that effective communication is essential for managing generational differences in the workplace. Touky, Osman, and Harvey (2023) suggest that organizations can enhance effectiveness by adapting communication methods to meet the preferences of each generation. Recent findings reveal differences in how organizational values are communicated across generations, underscoring the need for tailored communication strategies to bridge generational gaps and strengthen workplace cohesion.

Organizational Respect and Acknowledgment

Respect for individual values is essential for employee satisfaction and organizational success. Savdharia (2022) and Picagli (2024) emphasize that organizations acknowledging diverse employee values tend to create positive work environments and boost job satisfaction. This study confirms that when organizations respect the personal values of different generations, employee satisfaction and commitment increase.

Implications for Organizational Practice and respect for individual perspectives. Organizations that manage these areas well can enhance workplace harmony, job satisfaction, and overall effectiveness.

There are several related theories involve in this study such as Generational Theory, Communication Accommodation Theory, Social Exchange Theory and Organizational Culture Theory. Generational theory explores how people born in different eras are shaped by their times. This understanding is essential for recognizing the unique values, attitudes, and work preferences of each generation. The framework helps identify the distinct traits of Baby Boomers, Generation X, Millennials, and Generation Z.

Through generational theory, researchers can examine workplace behavior differences—such as work- life balance, communication styles, and job expectations—and how these differences affect workplacedynamics (Seemiller & Grace, 2019; Picagli, 2024).

Theories discussed include communication accommodation theory, social exchange theory, and organizational culture theory. Communication accommodation theory suggests adapting communication to bridge generational gaps. Social exchange theory emphasizes fairness and reciprocity in professional relationships, helping address value differences. Organizational culture theory underscores integrating diverse values into an organization's culture to foster inclusivity. Together, these theories guide strategies for managing value differences, such as using effective communication, promoting equitable relationships, and creating a culture that respects values across all age groups (Savdharia, 2022; Tourky, Osman, & Harvey, 2023).

6 RESEARCH METHODOLOGY

This research is a quantitative study where questionnaires were randomly distributed to employees ofpublic and private sectors in Kuala Lumpur. Respondents are all workers in the workplace and where questionnaires are distributed via online method. The questionnaires consist of four parts, which are demographics, organization values, values misalignment and strategies to resolve misalignment. Since the study covered a bigger research scope, this paper will only focus on the organization values and misalignment.Data were analysed using SPSS version 25.0.

7 RECOMMENDATIONS FOR APPROACHES TO CLOSING THE GAPS

Addressing generational differences and align values at work, companies should implement strategic approaches. First, improving communication between age groups can be achieved by developing multi- generational communication strategies and providing communication training (Touky, Osman, & Harvey, 2023; Savdharia, 2022). Additionally, recognizing and celebrating individual contributions through value recognition programs and conducting surveys to align values can help honor and appreciate personal beliefs (Kinias & Schloderer, 2021; Picagli, 2024). Creating a culture of respect in an organization is a key, which can be done by promoting inclusivity and encouraging open discussions about values (Guadalupe et al., 2021; Vlachoutsicos, 2013). It's important to align organizational values with personal values by updating them to reflect current standards and integrating personal values into organizational goals. This helps build stronger unity within the organization (Kinias & Schloderer, 2021; Savdharia, 2022).

Offering flexible work arrangements and supporting professional growth for employees of all ages can improve job satisfaction and reduce conflicts (Touky, Osman, & Harvey, 2023; Guadalupe et al., 2021). Bridging generational gaps can be achieved through workshops and mentoring programs that encourage mutual understanding and knowledge sharing (Savdharia, 2022; Kinias & Schloderer, 2021). Providing opportunities for employees to give feedback and acting on it helps improve communication and ensure alignment on values. Regularly reviewing and updating organizational policies based on feedback keeps them inclusive and relevant (Guadalupe et al., 2021; Touky, Osman, & Harvey, 2023).

8 CONCLUSION

This study offers important insights into the influence of organizational values and generational values alignment on workplace dynamics. The results confirm that personal values vary across generations, affecting how employees view and engage with organizational values (Savdharia, 2022; Picagli, 2024). Organizations that recognize and respect these personal values tend to create a more harmonious and satisfying work environment, supporting research that highlights the importance of valuing diverse perspectives for a positive workplace (Kinias & Schloderer, 2021). Additionally, this respect improves communication between generations, reinforcing the idea that tailored communication strategies can help bridge gaps and enhance workplace cohesion (Touky, Osman, & Harvey, 2023). The study also shows that when personal values are acknowledged, employees are more likely to align with organizational goals, reducing concerns about organizational values (Guadalupe et al., 2021). This alignment leads to less conflict, higher productivity, and a more inclusive work culture (Vlachoutsicos, 2013). Therefore, organizations should focus on strategies that promote understanding, recognition, and respect for diverse values, including implementing inclusive policies, enhancing communication, and fostering a respectful culture. Future studies could examine how different industries and contexts influence generational dynamics and their long-term impact on performance and employee well-being. Ultimately, addressing organizational values and generational values alignment is crucial for improving employee satisfaction, reducing turnover, and boosting organizational success.

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Growth in Malaysia, *1984-2016.* (PHD Thesis, Universiti Pendidikan Sultan Idris)

The Impact of Artificial Intelligence on Specialized Learning Motivationin Higher Education: A Conceptual Paper

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ABSTRACT

The rapid adoption of technology, especially Artificial Intelligence (AI), across different sectors of society has reshaped traditional models. Achieving specialized learning or training requires students to be highly motivated and actively engage in learning and skill development. This study explores how Artificial Intelligence (AI) can enhance student engagement during their preparation for a specialized field. It suggeststhat AI-powered tools, such as virtual assistants, intelligent tutoring systems, and algorithms, can offer personalized feedback, adaptive assessments, and customized curricula tailored to the unique needs and preferences of each learner. This study examines the impact of AI-based learning on the study habits and motivation in higher education. This conceptual paper also aims to investigate theoretical frameworks that provide evidence of AI's positive impact on student motivation, including factors such as autonomy, competence, and relatedness, among others. The study emphasizes the need for further research and collaboration among educators, researchers, and students utilizing AI technology. Such technology's developers are essential to fully leverage AI's potential in enhancing learner motivation and achieving the goals of specialist formation objectives. Moreover, the findings emphasize the transformative power of AI-driven gamification, with educators observing its capacity to foster inclusive, efficient, and impactful learningenvironments. The study also delves into the role of AI in fostering a student-centered learning approach, where technology adapts to the individual needs of learners. By utilizing AI algorithms, educators can create more dynamic, responsive learning environments that cater to diverse learning styles and preferences. For this study, an archival method where studies of different researchers are available on online databases including google scholar and Emerald Insight were used.

KEYWORDS: Artificial Intelligence, Student Motivation, Specialized Learning, Student Engagement, AI-based Learning, AI Tools, Higher Education

1.0 INTRODUCTION

1.1 Background of the Study

In the field of education, student motivation plays a crucial role in attaining successful learning outcomes and fostering deep engagement with the content. The journey to becoming an expert in a chosen field requires students to maintain strong enthusiasm for success. As a result, educators have investigated various strategies to boost motivation in educational settings (Rizvi, 2023). One promising approach that has emerged is the incorporation of Artificial Intelligence (AI) technologies. Technology was rapidly transforming society, creating a local market with various online platforms that enable swift interactions (García-Martínez et al., 2023). Among all AI technologies, those that significantly impact education, politics, the economy, and healthcare have earned the status of disruptive technologies (Gurramkonda & Pradhan, 2024). Next, AI revolutionizes education by altering the classroom atmosphere and energizing educational systems. According to Diwan et al. (2023), AI-driven learning incorporates technology into education by automating content creation, leading to improved learning experiences. This integration allows for personalized instruction tailored to individual student needs, enabling educators to provide targeted support. AI-based learning includes Intelligent Tutoring Systems (ITS), Virtual Reality (VR) and Augmented Reality (AR) systems, as well as natural language processing tools, all aimed at making the learning process more interactive and engaging for students. These technologies enhance the educational experience by creating immersive environments that promote active participation and deeper understanding.

The study by Haseski (2019) revealed that the use of AI in education will alleviate teachers' workloads while promoting personalized learning, enhancing effective educational experiences, facilitating potential discoveries, and boosting creativity among students. By automating administrative tasks such as grading and scheduling, AI allows educators to dedicate more time to instructional activities and student engagement. Another study conducted by Chernikova et al. (2020) revealed that the incorporation of simulators and other technologies in education encouraged students to think critically, enhancing their skills and motivating them to learn. A student's success is largely determined by their level of motivation and sustained effort. Establishing effective study habits and maintaining motivation are essential for students to achieve significant results in their future learning endeavours. AI becomes increasingly integrated into educational platforms, it raises concerns regarding its influence on conventional teaching methods, student autonomy, and the authenticity of language learning (Yang, 2024). By examining the current literature in this field, researchers will reveal the theoretical foundations as well as empirical evidence supporting its effectiveness. This analysis will ultimately highlight how AI can enhance student motivation and engagement in their coursework or studies. This study aims to investigate how AI can serve as a powerful tool in fostering student motivation while cultivating specialized skills and knowledge.

1.2 Research Problem

The rapid integration of Artificial Intelligence (AI) into educational frameworks presents both opportunities and challenges, particularly concerning student motivation in specialized learning environments. According to Alam et al. (2022) over seven billion people make up approximately 15% of the global population who are physically challenged in some capacity. A limited number of these individuals have access to assistive technologies and educational opportunities. The increasing integration of Artificial Intelligence (AI) into society has raised significant concerns regarding human rights and legal issues, including algorithmic transparency, cybersecurity vulnerabilities, and biases that can lead to discrimination. As AI technologies continue to evolve, there is a pressing need for comprehensive research to address the legal implications of these advancements, particularly their impact on fundamental rights such as privacy and data protection. The rapid advancement of Artificial Intelligence (AI) in educational settings poses several challenges that can affect student motivation, particularly concerning algorithmic transparency and the potential for bias in AI-driven assessments. As AI tools increasingly shape personalized learning experiences, there is a critical need for research into how these technologies impact students' intrinsic motivation, engagement, and overall learning outcomes (Rodrigues, 2020). Moreover, the uneven implementation of AI technologies raises questions about equity in access and effectiveness.

Students from diverse backgrounds may experience varying levels of engagement and support, potentiallywidening existing achievement gaps.

According to Wulan et al. (2024) revealed that AI applications like gamification provided various advantages, but they also come with certain challenges. Educators must thoughtfully design gamified activities to ensure they support learning objectives and do not detract from the educational content. Furthermore, there was a concern that some students may become too fixated on earning rewards instead of engaging in the learning process itself, necessitating a careful balance between motivation and educational value. Technical challenges like software malfunctions, compatibility issues, and restricted access to digital resources can impede the effective implementation of AI tools (Zhao, 2020). Such problems can interrupt the learning experience and adversely affect student engagement. Therefore, the aim of this study is to present the literature explores how Artificial Intelligence (AI) can enhance student engagement or increase student motivation during their preparation for a specialized field. According to Fuchs (2023) revealed that although NLP models like ChatGPT and Google Bard offer numerous opportunities, they also face several challenges and ethical concerns that need to be considered. One major challenge is accuracy. The precision of these systems largely relies on the quality, diversity, and complexity of the training data, along with the quality of the input data submitted by students. Understanding this dynamic is essential for educators and policymakers seeking to leverage AI in ways that enhance student motivation and foster successful learning outcomes in higher education.

1.3 Significance of the Study

This research highlights the necessity for additional studies to fully understand the influence of artificial intelligence on specialized learning motivation within higher education. Researchers will be able to deepen their insights into the factors that drive student motivation and academic success in AI-enhanced learning environments. To truly identify the challenges, it's crucial to explore the extent of motivational issues among students involved in specialized learning with AI tools. The results of this study offer valuable perspectives on student motivation levels in higher education institutions, as well as insights for educators. Furthermore, the findings can assist students in identifying the elements that contribute to their motivational challenges when using AI in their studies. The study will provide information that can help educators design more effective teaching strategies that balance AI-assisted and traditional learning methods to enhance student engagement and learning outcomes. Additionally, this study has practical implications for parents, offering guidance on how they can support their children’s motivation and academic success in AI- supported specialized learning environments. The findings of this study can also provide valuable insights into the motivation levels of students in higher education institutions, which can guide administrators in developing policies and programs that foster a supportive learning environment. Faculty can leverage these insights to design effective instructional strategies that integrate AI tools, balancing online and in-person components to maximize student engagement and learning outcomes.

2 LITERATURE REVIEW

2.1 Artificial Intelligence

The definition of AI has evolved since 1956, reflecting significant advancements in its capabilities. Today, AI is described as "computer systems that can perform human-like activities such as learning, adapting, synthesizing, self-correcting, and using data to handle complex tasks" (Crompton & Burke, 2023). Artificial intelligence (AI) in higher education marks a major shift towards more adaptable, efficient, and engaging learning experiences. Examples of AI applications in this field include intelligent tutoring systems, predictive analytics, personalized learning environments, and administrative support tools (Nacheva & Czaplewski, 2024). These AI-tools are created to address various challenges in education, such as improving student retention, motivation and engagement, speeding up grading and feedback processes, and fostering personalized instruction. According to study by LeewayHertz (2024) revealed that personalized instruction and feedback. ITS can significantly enhance learning outcomes by delivering timely, tailored assistance similar to that of a human tutor. Generative AI has a strong motivational effect on students. AI-driven systems offer instant feedback and customized learning experiences, helping learners feel a sense of accomplishment and growth (Jacques et al., 2024). AI that integrates a student's physiological responses, including facial expressions, enhances their sense of well-being, which in turn boosts motivation (Rizvi, 2023). According to Olasehinde (2024) revealed that a key area of interest is the use of AI to tailor education, where algorithms adjust learning materials and teaching methods to meet the needs of individual students. This is especially important for adult learners, who typically have diverse educational backgrounds, learning preferences, and career objectives compared to younger students. According to Hussain et al. (2022), Artificial Intelligence refers to the capability of machines to adjust to new circumstances, handle unexpected situations, solve problems, answer questions, create plans, and carry out various tasks that usually demonstrate a degree of intelligence similar to that of humans.

2.2 Theoretical Frameworks for Motivation

Motivation is a complex concept that compels individuals to act and remain determined in pursuing their goals. According to Rizvi (2023) revealed that to better understand how Artificial Intelligence (AI) can enhance student motivation in specialized instruction, various theoretical frameworks have been created, such as Self-Determination Theory (SDT) and Expectancy-Value Theory (EVT). Self- Determination Theory (SDT) describes the fundamental psychological needs for autonomy, competence, and relatedness that must be satisfied for a person to experience intrinsic motivation, engagement, and well- being (Fazlollahi et al., 2022). AI technologies are well-suited to offer students autonomy by enabling them to customize their learning pathways according to their interests. Additionally, adaptive feedback mechanisms powered by AI enhance genuine understanding by providing personalized guidance based on each learner's progress. Furthermore, technology-enabled collaborative activities foster connections among peers with shared goals. Moreover, Expectancy-Value Theory (EVT) suggests that an individual's beliefs about the value of a task and their expectations for success drive motivation toward achievement (Wang et al., 2023). In this context, AI can play a crucial role in enhancing perceived value and boosting expectations for success by delivering personalized content tailored to each user's performance history or skill level. Collectively, these theories illustrate the significant potential of artificial intelligence in enhancing student motivation, which is a crucial element influencing academic success. To fully leverage the benefits of AI on student motivation in specialized learning, it's essential to incorporate theoretical frameworks like autonomy, competence, relatedness, expectancy value, and intrinsic motivation into the design process (Hwang et al., 2021).

2.3 Relation between AI and Specialized Learning Motivation

The use of Artificial Intelligence (AI) to boost student motivation in specialized training is crucial for improving learning outcomes. AI technologies offer personalized, adaptive experiences that cater to individual needs and interests. By employing advanced algorithms, these systems can tailor content, activities, instructions, and feedback to meet the specific requirements of each learner (Rizvi, 2023). According to Ayeni et al. (2024) revealed that by leveraging data-driven insights into learners' preferences and progress, AI technologies allow educators to customize the educational experience for each student. From instructional methods to content choices and even the learning experiences themselves, courses can be adjusted to align with individuals' strengths, weaknesses, and interests, creating an engaging environment that maximizes their learning potential. Along with personalized instruction pathways generated by AI technology, adaptive feedback mechanisms are crucial for enhancing student motivation during specialized training. Unlike traditional one-size-fits-all methods, these systems evaluate students' responses to specific tasks and then provide targeted guidance or support based on the data gathered (Joshi, 2021). This kind of actionable feedback not only reinforces accomplishments but also offers valuable guidance on areas for improvement, motivating learners to achieve successful outcomes. The combination of personalized learning and adaptive feedback in an AI-driven environment provides numerous benefits for specialized training (Karasievych, 2021). This tailored approach promotes autonomy among learners and cultivates a sense of ownership over their educational journey. Additionally, they receive focused support through ongoing guidance, helping them maintain motivation throughout their developmental journey.

Moreover, in the field of education, gamification presents a chance to enhance motivation and engagement among learners. Incorporating game elements like levels, badges, leaderboards, and rewards into the learning process enhanced by Artificial Intelligence (AI) technologies allowed students to engage in a compelling and interactive environment that piques their interest (Kosholap et al., 2021). Gamification is described as "the application of game design elements in non-game settings" (Dehghanzadeh, 2024). In educational environments, gamification seeks to enhance the learning experience by incorporating game- like elements into the curriculum. This strategy can boost students' motivation, involvement, and information retention, as it turns learning into an interactive and rewarding activity (Wulan, 2024). For example, students could earn points for finishing assignments, receive badges for mastering new skills, or compete on leader boards to promote a sense of accomplishment and friendly rivalry. One educator observed that students showed greater enthusiasm for completing assignments and participating in class discussions when gamification techniques were used (Bai, 2021). The incorporation of Artificial Intelligence (AI) in gamified learning is rapidly gaining popularity among educators. By offering real-time feedback and progress monitoring, AI enables students to assess their growth and achievements in a structured manner. Adaptive gamification experiences enhance this approach by modifying content according to students' performance, utilizing machine learning algorithms to analyse their interactions, styles, and responses (Kulkov, 2023). Educators must also provide guidance throughout the process. This support ensures that gameplay remains meaningful and teaches essential skills for future success (Rizvi, 2023).

Furthermore, the impact of Artificial Intelligence (AI) on boosting student motivation in specialized training largely relies on emotional and social engagement. By integrating AI technologies into education, learning experiences can become more engaging, tailored, and impactful. These systems enable interactions that identify and adapt to students' emotional states, fostering a more personalized and responsive approach to learning (Kretzschmar, 2024). A crucial aspect of this approach is emotional engagement, which involves interpreting how individuals feel by analysing factors such as facial expressions, voice tone, and physiological signals. AI systems can analyse emotional indicators, such as facial expressions or mood changes, to tailor instruction accordingly. When a student shows signs of frustration, the system can provide additional resources or alternative explanations, helping them continue learning without feeling overwhelmed(Nasimovna, 2022). Additionally, through interactions with AI-powered virtual assistants, students benefit from enhanced guidance and encouragement from a source capable of empathy when necessary. These interactions contribute to a more supportive learning atmosphere, fostering student engagement and motivation (Rizvi, 2023). This fosters an environment where students experience feelings of belonging and confidence, which contributes to their overall well-being. Such an atmosphere further enhances their motivation to pursue knowledge during specialized training. Integrating AI technologies that focus on emotional and social engagement in education offers promising opportunities for collaboration, interaction, and peer learning. By utilizing advanced algorithms to connect students with similar interests, educators canfoster a sense of community and encourage active participation among learners (Gurramkonda & Pradhan, 2024). According to Paek & Kim (2021) revealed that through AI- driven platforms like virtual classrooms and online forums, individuals can share ideas and cultivate essential social-emotional skills, including empathy and effective communication.

2.4 Impacts of AI Usage on Specialized Learning Motivation

According to Gurramkonda & Pradhan (2024) revealed that numerous studies have shown that technology- enhanced learning, including the use of AI and multimedia, significantly influenced students' time management. This integration allows learners to evaluate and customize their learning experiences more effectively and increase students' motivation. One perspective is that AI technology, when utilized as a teaching tool, can enhance students' motivation to learn. By providing personalized feedback and engagement may lead to increased persistence and a stronger desire to achieve academic goals (Yang, 2024). Technology plays a fourfold role in education, it is integrated into the curriculum, acts as a system for delivering instruction, aids in teaching delivery, and serves as a tool to improve the learning experience. With technological progress, education has transformed from being passive to more interactive and dynamic (Shrivastava, 2023). The use of AI chatbots like ChatGPT in higher education institutions (HEIs) can have a beneficial impact on various academic processes and learning motivation such as admissions, by simplifying enrolment through personalized approaches that cater to each student's unique needs (Dempere et al., 2023). AI chatbots can also enhance student services by offering personalized support with financial matters, scheduling, and guidance. Furthermore, they can improve teaching by generating interactive learning experiences, helping students grasp course material, delivering individualized feedback, and assistingresearchers in data collection and analysis.

3 RESEARCH METHODOLOGY

To accomplish the aforementioned goals, a review of the literature was done utilizing an archival method. Using the terms "Artificial Intelligence," "student motivation," "specialized learning," "student engagement," "AI-based learning," "AI tools," "higher education," it was possible to assemble the studies of various academics from online sources like Google Scholar and Emerald Insight. As a result, study about the impact of Artificial Intelligence on specialized learning motivation that were published between 2019 and 2024 have been examined to fulfil the stated objective. The study would provide insights into the the impact of AI on specialized learning motivation in higher education.

4 DISCUSSION AND CONCLUSION

The application of Artificial Intelligence (AI) to enhance student motivation during specialized training is arapidly expanding and promising area in education. This study highlights various ways in which AI can positively impact student motivation, including personalized learning experiences, adaptive feedback, gamification, and enhanced emotional and social engagement. AI-driven personalized learning offers students personalized experiences that cater to their unique needs, interests, and learning pace. By integrating AI algorithms into educational platforms, these systems can analyse learner data to identify strengths and weaknesses, thereby providing customized content and appropriately challenging tasks (Ayeni et al., 2024). This not only enhances learner engagement but also encourages autonomy in the studying process, which further inspires them to pursue ongoing self-improvement (Rizvi, 2023). Adaptive feedback is another critical area where AI significantly enhances student motivation. These systems can analyse students' responses and track their progress while offering timely, tailored advice that is both specific and constructive, addressing each learner's unique needs (Joshi, 2024). Such real-time guidance allows individuals to closely monitor their progress and feel a sense of satisfaction upon achieving results, which further motivates them to strive for success in their specialist formation studies.

Gamification combined with artificial intelligence offers exciting opportunities for creating engaging scenarios that enhance motivation in various aspects of knowledge acquisition. For this approach to be effective, game elements like levels, achievements, rewards, and leader boards must be utilized thoughtfully. This ensures that intrinsic motivations are engaged, curiosity is stimulated, and a sense of accomplishment is fostered among participants once they achieve their goals (Shaffer et al., 2020). At its foundation is personalization, achieved through specialized algorithms that ensure each user faces an appropriate level of challenge. This prevents feelings of being either overwhelmed or underwhelmed both of which can hinder successful completion rates and overall satisfaction. Gamified learning methods offer prompt feedback and create a more engaging educational atmosphere, which has been associated with enhanced academic performance and a deeper grasp of the subject matter. However, the effectiveness of gamification hinges on careful execution and its alignment with educational objectives (Wulan et al., 2024). While gamification offers various advantages, it also comes with several challenges, such as the complexity involved in its integration and the risk of uneven effects among students. Although gamified features can enhance engagement, they necessitate considerable effort in both design and ongoing maintenance.

Finally, the emotional and social connections among participants in the teaching and learning process should not be neglected. Current technology, particularly those enhanced by artificial intelligence, can easily facilitate these connections by helping to build strong relationships based on mutual trust and a deeper understanding of one another, enabling more effective interactions (Song & Wang, 2020). This leads to an enhanced bonding experience that fosters a greater commitment to completing the study plan. Moreover, the sense of belonging created among peers in a virtual space, who interact regularly from the start of their journey to the final session months later, encourages them to follow through. Ultimately, they graduate as certified professionals, ready for a new chapter in life. They become some of the brightest minds, equipped to contribute to a world increasingly in need of quality education, regardless of their origins or backgrounds, which are irrelevant in this context (Sun, 2021). Extensive research indicates that artificial intelligence (AI) is increasingly having a beneficial effect on learning motivation, particularly in specialized educational settings. By employing personalized and engaging teaching strategies, AI fosters students' interest and autonomy in their learning processes. For example, AI-driven systems can adapt content to meet individual learning needs, which enhances motivation by making education more relevant and stimulating (Yang, 2024).

5 ACKNOWLEDGEMENTS

The authors would like to express a great acknowledgement of the funding from Kolej Poly-Tech MARA Alor Setar.

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The Role of Artificial Intelligence in Personalized Learning: EnhancingStudent Engagement and Academic Performance

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ABSTRACT

The advent of Artificial Intelligence (AI) has revolutionized numerous sectors, including education,where AI-driven platforms are transforming traditional teaching and learning approaches. Personalized learning, facilitated by AI, has become a focal point for enhancing student engagement and improving academic performance. This concept paper explores the role of AI in delivering individualized learning experiences that cater to diverse student needs. It aims to investigate how AI-powered adaptive learning systems increase student engagement by creating tailored learning paths, offering real-time feedback, and allowing students to progress at their own pace. Moreover, this paper examines how such personalizationinfluences academic performance by providing targeted content, optimizing learning strategies, and identifying knowledge gaps. Through a literature review, the paper will define AI's meaning in the educational context and explore its applications in enhancing student outcomes. The methodology for thisresearch involves an archival approach, utilizing studies from online databases such as Google Scholar andEmerald Insight. With Gen Z being a generation of digital natives, it is crucial to encourage their exploration of AI technologies to ensure that modern education systems evolve in step with global innovations. Failing to integrate AI meaningfully into education could leave current students and future graduates behind in an increasingly AI-driven world. Thisstudy seeks to contribute to the growing body of knowledge on AI in education especially in higher educationand offers insights into its potential to reshape the future of learning.

KEYWORDS: Artificial Intelligence, Personalize Learning, Student Engagement, Academic Performance

1.1 Background of the Study

Artificial Intelligence (AI) has permeated nearly every facet of modern life, with the education sector witnessing significant transformations in teaching and learning practices. The integration of AI into education, particularly through personalized learning systems, has the potential to radically change how students engage with their studies (Tapalova & Zhiyenbayeva, 2022). Personalized learning is an educational method designed to customize education based on the unique needs, abilities, and interests of each individual student (Ibrahim, 2024). In a college environment, where learners come from diverse backgrounds with different learning styles and aptitudes, personalized learning systems can provide a solution to the one-size-fits-all approach oftraditional education.

AI-driven platforms, such as adaptive learning systems and intelligent tutoring systems, have been designed to track student progress, provide instant feedback, and recommend tailored resources that align with each student's needs (Sajja et al., 2024). These systems create opportunities for deeper engagement by ensuring that content is relevant, appropriately challenging, and accessible. As student engagement is a key factor influencing academic success, the potential for AI to improve these outcomes has drawn significant interest from educators and researchers alike. This paper seeks to investigate how AI-driven personalized learning systems contribute to enhancing student engagement and academic performance, emphasizing their role in reshaping higher education.

1.2 Research Problem

Despite the growing interest in AI-powered personalized learning platforms, there remainquestions about theeffectiveness of these tools in enhancing student engagement and academic performance in college settings. Current research often highlights the potential of AI but lacks comprehensive empirical evidence that demonstrates its real-world impact on student success. Furthermore, the rapid adoption of AI technologies in education raises concerns about issues suchas equity, access, and the quality of AI-generated feedback.

According to Ibrahim (2024), one major challenge is understanding how AI systems can meaningfully increase student engagement, which is a critical predictor of learning outcomes. Engagement is multifaceted, involving emotional, cognitive, and behavioural components. While AI platforms can personalize content and provide interactive features, the degree to which these systems actively promote sustained engagement across all dimensions remains unclear. Additionally, there is a need to examine whether the personalization of learning content translatesinto measurable improvements in academic performance, such as grades, retention rates, and knowledge acquisition (Zhiyenbayeva et al., 2021).

This paper addresses these gaps by exploring two primary research questions: (1) To whatextent do AI-driven personalized learning systems enhance student engagement in higher education? (2) How do these systems impact academic performance, and what mechanisms drive this improvement? By addressing these questions, the study aims to provide a clearer understanding of the relationship between AI technology, student engagement, and academic outcomes, offering valuable insights for educators, administrators, and policymakers.

1.3 Significance of the Study

This study is significant because it explores how AI technologies can address persistent challenges in higher education, such as student disengagement and variable academic performance.As educational institutions increasingly adopt AI-driven solutions, understanding their impact is crucial for optimizing their use. The findings will provide educators with insights into effective strategies for using AI to support personalized learning. Additionally, this research contributes to the broader discourse on the role of technology in education, offering data-driven recommendationsfor maximizing the benefits of AI while mitigating potentialrisks.

2 LITERATURE REVIEW

2.1 Artificial Intelligence (AI) in Education

Artificial Intelligence (AI) refers to the simulation of human intelligence by machines, particularly computer systems, capable of performing tasks that typically require human cognition,such as learning, reasoning, and problem-solving (Russell & Norvig, 2021). In the context of education, AI encompasses a broad spectrum of technologies designed to enhance learning experiences through data analysis, personalization, and automation. Key applications of AI in education include adaptive learning platforms, virtual tutors, and intelligent feedback systems, all of which aim to improve the learning process by making it more efficient and customized to individual student needs (Luckin, 2022).

AI's ability to analyze vast amounts of data, such as student behavior, learning patterns, and academic progress, allows it to create personalized learning pathways. These AI-driven platforms use machine learning algorithms to adapt content delivery, enabling students to receive instruction that aligns with their unique learning styles and paces (Holmes et al., 2021). The role of AI in education extends beyond content personalization, as it also includes predictive analytics thatcan identify at-risk students and recommend timely interventions (Baker & Siemens, 2020). By analyzing historical data, AI systems can anticipate challenges and suggest strategies to improve student performance.

Moreover, AI enables scalability in education, making personalized learning available to abroader range of students, regardless of class size. While human instructors may struggle to offer individualized attention to every student, AI systems can manage and respond to multiple learnerssimultaneously, offering feedback and adjustments in real-time (Zawacki-Richter et al., 2020). However, despite its advantages, concerns remain about the potential depersonalization of education and the ethical implications of using AI, such as privacy and data security (Selwyn, 2021). Thus, understanding AI's full potential and limitations is crucial for its responsible integration into education.

2.2 Enhancing Student Engagement through AI

Student engagement is a key determinant of academic success, encompassing cognitive, emotional, and behavioral dimensions (Fredericks, Blumenfeld, & Paris, 2022). Cognitive engagement refers to the mental effort students invest in learning, emotional engagement involvesinterest and motivation, and behavioral engagement includes participation in learning activities (Christenson et al., 2020). AI-driven personalized learning platforms are uniquely positioned to enhance engagement by tailoring content to individual needs and providing interactive learning experiences that maintain interest.

AI tools like adaptive learning systems continuously assess students' knowledge and adjustthe difficulty and type of content in real-time, ensuring that learners are neither overwhelmed nor stay focused when content is aligned with their current abilities and goals (Xie et al., 2021).Additionally, AI- powered systems can incorporate gamification elements, such as badges, leaderboards, and progress tracking, which foster emotional engagement by providing incentives and rewards for active participation (Rodriguezet al., 2023).

AI also supports behavioral engagement by offering immediate feedback, allowing students to correct mistakes and reinforce learning concepts. Interactive AI systems, such as chatbots or virtual tutors, can provide 24/7 support, answering student queries and guiding them through complex topics, thus encouraging continuous learning outside the classroom (Woolf, Lane, & Howard, 2022). Personalized learning environments foster a sense of autonomy, which is crucialfor student motivation and sustained engagement (Ryan & Deci, 2021). However, the challenge remains in ensuring that AI platforms are engaging for all learners, including those who may struggle with technology or require more human interaction.

2.3 Improving Academic Performance through AI

Academic performance is influenced by multiple factors, including instructional quality, student engagement, and the alignment of educational content with learning needs (Kuh et al., 2022). AI-driven personalized learning platforms can significantly impact academic outcomes by providing tailored instructional materials, identifying knowledge gaps, and optimizing learning strategies. One of the primary ways AI enhances academic performance is through adaptive learning, which ensures that students receive content suited to their current understanding and learning pace (Wang, 2023).

AI systems use data analytics to track individual progress and predict potential areas of difficulty. By analyzing learning patterns, AI can recommend targeted interventions that address specific weaknesses, improving the efficiency of the learning process (Sharma & Goyal, 2022). For example, if a student consistently struggles with a particular concept, the system can generate supplementary exercises or instructional videos designed to reinforce understanding. This targetedsupport helps students overcome learning barriers, leading to better academic outcomes (Muñoz- Merino et al., 2022).

Moreover, AI platforms provide students with continuous feedback, which is essential foracademic growth. Immediate feedback enables students to recognize errors and make corrections in real-time, reinforcing positive learning habits and boosting confidence in their abilities (Lin et al., 2021). As a result, students aremore likely to achieve higher grades and retain knowledge overtime. AI systems also benefit educators by providing data-driven insights into student performance,allowing instructors to adjust teaching methods and offer additional support where necessary (Lu et al., 2020). While AI cannot replace the nuanced understanding of a human teacher, its ability toaugment instruction and personalize learning has a proven impact on academic success.

3 METHODOLOGY

To accomplish the research goals, a review of the literature was done utilizing an archivalmethod. Using the terms "Artificial Intelligence," "student engagement," "academic performance,"and "personalize learning," itwas possible to assemble the studies of various academics from onlinesources like Google Scholar and Emerald Insight. As a result, study about the impact of Artificial Intelligence on specialized learning motivation that were published between 2020 until 2024 havebeen examined to fulfil the stated objective. The study would provide insights into the role of AI on student engagement and their academic performancein higher education.

4 DISCUSSION AND CONCLUSION

Integration of Artificial Intelligence in education, particularly through personalized learning systems, holds immense potential for transforming the higher education landscape. AI-driven platforms can offer tailored learning experiences that enhance student engagement and academic performance. This paper has explored how AI contributes to these outcomes by providingpersonalized content, real-time feedback, and adaptive learning paths, allowing students to navigatetheir educational journey at their own pace and according to theirunique learning styles.

One of the key findings is that AI-driven personalized learning can significantly enhance student engagement by fostering autonomy, providing interactive and gamified learning experiences, and delivering immediate feedback (Ellikkal & Rajamohan, 2024). These elements address different dimensions of engagement, from cognitive and emotional to behavioural aspects,making learning more accessible, relevant, and enjoyable forstudents. The ability to cater to individual needs ensures that students are not only more focused but also moremotivated to succeedacademically.

In terms of academic performance, AI's role in identifying knowledge gaps and providing targeted interventions is crucial. By adapting content delivery to the student's current level of understanding, AI can help bridge gaps in knowledge more effectively than traditional teaching methods (Huang et al., 2021). Furthermore, the continuous feedback provided by AI systems supports students in making real-time adjustments to their learning strategies, reinforcing conceptsand promoting better retention. This targeted, data-driven approach has been shown to result in improved grades, higher retention rates, and overall academic success.

Despite the advantages, challenges remain. Concerns about the ethical implications of AI in education, such as data privacy, algorithmic bias, and the potential depersonalization of learning,cannot be overlooked. It is crucial for educational institutions to implement AI responsibly, ensuring that these systems are used as toolsto augment, rather than replace, human instruction. Additionally, the accessibility of AI-driven platforms must be addressed to prevent further widening the educational gap for students from disadvantagedbackgrounds.

In conclusion, AI in personalized learning offers significant promise for improving studentengagement and academic performance in higher education. However, successful implementation requires a balanced approach that leverages the strengths of AI while addressing its limitations. Future research should continueto explore the long-term impacts of AI on student outcomes and the evolving role of educators in an AI- enhanced learning environment.

5 ACKNOWLEDGEMENTS

The authors would like to express a great acknowledgment of the funding from Kolej Poly-Tech MARA Alor Setar.

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THE AWARENESS OF TAX COMPLIANCE AMONG STUDENTS AT KOLEJ POLY-TECH MARA: A CONCEPTUAL PAPER

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ABSTRACT

In ensuring the government can provide goods infrastructure to the public and support the development of the country, the government needs a strong source of income. This income might come from a variety of sources, both inside or outside Malaysia. According to Government Budget 2024, 44.4% of the government income derives from taxation. In the announcement budget 2025, the Minister of Finance has declared that the tax collection is at the rate of 12.6% for the year 2023, which is among the lowest collections in ASEAN. In supporting government agendas in tax collection, awareness of tax compliance should be exposed in the early stages, especially in the higher learning institution. For the future research, we aim to measure the awareness of tax compliance among semester six students at Kolej Poly-Tech MARA (KPTM), as they will be entering the workforce after completing the industrial training program.

Keywords: tax awareness, tax compliance,

NTRODUCTION

Income is one of the crucial sources in developing the country. One of Malaysia's income streams is from taxation. This taxation is contributed by many parties. According to Inland Revenue Board (IRB) data from 2022, the number of registered taxpayers increased by 11.7%, but the number of active taxpayers climbed by just 1.9%. In 2023, salaried workers were the second largest in overdue tax at 23.4%, or RM1.48 billion, after companies with RM1.44 billion in additional taxes and RM46 million in penalties (The Star, 22 Feb 2024). This is because tax obligations were not fulfilled. In ensuring this issue can be minimized, tax payers must alsobe aware of how and when they are imposed with tax.
The role of taxpayer awareness and compliance is very important for a nation in an effort to collect the country's revenue from the tax sector. This is because the understanding and awareness of the people to obediently pay the tax is still relatively low. Taxpayer awareness is a condition in which the taxpayer knows, understands and implements tax provisions voluntarily. The higher the level of awareness, the better the taxpayer's compliance. There are still many taxpayers who do not pay taxes. Lack of understanding and knowledge of taxation causes a lack of public awareness of paying taxes.

Tax awareness should begin in the early stages of education, in schools and universities to promote public awareness and increase tax collection. Many awareness programmes were held by the Inland Revenue Board and also private agencies to increase the awareness of taxpayers and potential taxpayers. According to Azmi et al. (2020), tax awareness can only be effective in achieving tax compliance if tax knowledge and tax education are strengthened.

Students of higher institutions are potential taxpayers as they will be contributing to the workforce soon after graduation. Since they are educated, their knowledge about the tax system especially the Malaysian taxation system should be broader. Considering these tax issues, this study aims at examining the factors affecting tax awareness among students at KPTM. The study will enrich the existing literature on tax perceptions and tax awareness among students.

LITERATURE REVIEW

Taxpayer awareness among students is a crucial aspect of fostering tax compliance and ethical behavior in society. Several studies have delved into the factors influencing taxpayer awareness and knowledge among students, highlighting the significance of tax education, ethics integration, and behavioral aspects in shaping individuals' compliance with tax regulations. Wardani & Aprianingsih (2019) emphasize the effectiveness of educational tools like the "Tax Telling" microsite in enhancing tax knowledge among high school students, indicating the importance of innovative approaches to tax education (Wardani & Aprianingsih, 2019). Similarly, Yasa et al. (2021) stress the role of ethics integration in taxation education to enhance students' ethical awareness and compliance with tax laws (Yasa et al., 2021). These studies underscore the need for a holistic approach that combines tax knowledge with ethical considerations to instill a sense of responsibility towards tax obligations.

Moreover, research by Rahayu et al. (2019) highlights the positive impact of increasing tax knowledge through education on taxpayers' awareness and compliance with tax regulations, suggesting that educational interventions can lead to greater tax consciousness among individuals (Rahayu et al., 2019;. Sanjaya et al., 2020) further elaborate on internal factors affecting taxpayers' compliance, including awareness factors, understanding of tax laws, education, and rationality, emphasizing the multifaceted nature of influences on taxpayer behavior (Sanjaya et al., 2020). These findings underscore the complex interplay of cognitive, educational, and rational factors in shaping individuals' attitudes towards taxation.

Furthermore, discuss policies aimed at enhancing students' tax awareness and literacy to improve overall tax compliance, highlighting the role of education in fostering a culture of tax responsibility and compliance (Formanová et al., 2021). Similarly, emphasizes the importance of equipping students with a solid understanding of tax principles to promote fiscal responsibility and transparent governance, laying the foundation for a financially prudent society (Uribe-Hernández, 2023). These studies underscore the pivotal role of education in shaping individuals' attitudes towards taxation and fostering a culture of compliance and accountability.

Additionally, Bidari et al. (2023) explore tax knowledge among university professors, indicating the need for comprehensive tax education across academic disciplines to enhance overall tax awareness and compliance (Bidari et al., 2023; . Kurniawan, 2020) further elucidates how tax education in higher education can boost tax knowledge and influence taxpayers' compliance behavior, underscoring the long-term benefits of educational initiatives in promoting tax compliance (Kurniawan, 2020). These studies highlight the importance of integrating tax education into academic curricula to cultivate a well-informed taxpayer base with a strong sense of compliance.

Moreover, Ratnawati et al. (2019) emphasize the role of tax awareness in strengthening the effects of education, service quality, and accountability on taxpayer compliance, suggesting that heightened awareness can amplify the impact of other factors on individuals' compliance behavior (Ratnawati et al., 2019; . Ebimobowei & Duoduo, 2023) propose the establishment of tax clubs in schools to enhance students' tax awareness and understanding, simplifying tax procedures and fostering sustainable economic growth through informed taxpayer practices (Ebimobowei & Duoduo, 2023). These studies underscore the need for proactive measures to enhance tax awareness among students and promote a culture of compliance from an early age.

In conclusion, taxpayer awareness among students is a multifaceted issue influenced by factors such as tax education, ethics integration, behavioral considerations, and internal cognitive processes. By fostering tax knowledge, ethical awareness, and a sense of responsibility towards tax obligations through educational initiatives and innovative approaches, societies can cultivate a culture of compliance and accountability. Integrating tax education into academic curricula, promoting tax awareness activities, and engaging stakeholders in collaborative efforts can significantly enhance taxpayer awareness among students, ultimately contributing to improved tax compliance and ethical behavior in society.

METHODOLOGY

In future study, the researchers aim to adopt a quantitative research methodology, using the survey strategy to collect data via questionnaire technique. This questionnaire will be randomly distributed to the semester six students in KPTM since they will soon be entering the workforce. The respondents were reached via distribution of questionnaire through online platform.

This questionnaire consists of two sections where students will be asked for demographic information and the second section will be about their knowledge and awareness towards tax compliance. (Mohamad, 2013). Amongst the items asked in the questionnaire include the student's awareness on filing their tax return to the IRB (Sanusi, et al., 2021). The data will be analysed using Statistical Package for the Social Science (SPSS).

CONCLUSION

The IRB's tax education month awareness campaign is a good attempt to raise public understanding of taxes. In order to help IRB, spread the knowledge, higher institutions also should play their role to introduce this awareness since in the higher-level education program because all program outcomes focus on producing a quality workforce in the future. Based on the definition of taxable person, an individual who received an income derived from Malaysia or received in Malaysia from outside Malaysia that meets the income threshold value must register for an income tax file.

A study by Hamid N.A, Ismail I.A., Yunus N., Jali M.N. and Rosly A.S (2021) showed that most of the SMEs lacked knowledge about tax management and had inadequate knowledge on tax compliance. This indicates that the public's awareness of tax is still poor. The findings of Sanusi et al. (2021), which showed that many young Malaysians overlooked their responsibility as taxpayers, further support previous finding. The general tax filing knowledge dimension is vital in forming the attitude of the public (Soon A.L, 2020). Early exposure to tax awareness is good for future generations as a preparation before they enter the industry. This will also prevent them from being penalized by the Inland Revenue Board.

One effective way to raise student understanding of taxes is to make the taxation course available to all students across the program. They will use this lifelong learning in their future endeavours. Therefore, the factors influencing tax awareness among KPTM's students would be the main focus of this study. The findings of this study may influence management to make decisions that will result in producing a staff of high calibre. A larger sample of respondents involving different institutions might be considered as a study in the future.

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Kesan Kecerdasan Buatan (AI) Terhadap Pendidikan Masa Kini: Kertas Konsep

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ABSTRAK

Kertas konsep ini mengkaji impak kecerdasan buatan (AI) dalam sektor pendidikan, khususnya dari segi pengajaran dan pembelajaran, penilaian automatik, analitik pembelajaran, serta pembelajaran adaptif. AI telah mempercepatkan transformasi pendidikan dengan memperkenalkan pembelajaran yang lebih peribadi dan berasaskan data. Walau bagaimanapun, penerapan AI dalam pendidikan juga membawa cabaran seperti privasi data, etika, dan kos pelaksanaan yang tinggi. Kajian ini bertujuan untuk mengkaji manfaat dan halangan penggunaan AI, serta mencadangkan langkah-langkah untuk meningkatkan pelaksanaannya dalam konteks pendidikan masa kini, khususnya di Malaysia.

Kata Kunci: Kecerdasan Buatan; Pendidikan; Pembelajaran Adaptif; Analitik Pembelajaran; Penilaian Automatik; Privasi Data; Etika; Kos Pengoperasian.

1. PENGENALAN

Kecerdasan buatan (AI) semakin penting dalam memacu perubahan sektor pendidikan global dan tempatan. AI menawarkan pendekatan yang lebih pintar dalam pengajaran dan pembelajaran melalui teknologi seperti pembelajaran adaptif, penilaian automatik, dan analitik pembelajaran. Di Malaysia, meskipun AI telah diterima baik di beberapa institusi pendidikan tinggi, terdapat banyak cabaran dalam memastikan kesediaan infrastruktur dan tenaga pengajar yang mencukupi untuk penerapan yang lebih menyeluruh. Kajian ini bertujuan untuk menilai impak AI terhadap pendidikan masa kini, mengenal pasti cabaran yang dihadapi, dan mencadangkan pendekatan terbaik bagi memaksimumkan potensi AI dalam pendidikan.

2. KESAN AI DALAM PENDIDIKAN

2.1 Pembelajaran Adaptif dan Personalisasi Pembelajaran

AI membolehkan pendekatan pembelajaran yang disesuaikan mengikut keperluan setiap pelajar. Sistem pembelajaran adaptif seperti DreamBox dan Knewton menggunakan AI untuk menilai kemajuan pelajar dan menyesuaikan bahan pengajaran secara automatik (Holmes et al., 2019). Dalam konteks Malaysia, pendekatan ini meningkatkan pemahaman pelajar dengan membolehkan mereka belajar mengikut kemampuan dan tahap pemahaman sendiri

(Fadel et al., 2015; Makridakis, 2017). Sistem pembelajaran adaptif ini juga telah terbukti meningkatkan minat pelajar terhadap pembelajaran berasaskan teknologi (Luckin et al., 2016).

2.2 Penilaian Automatik dan Analitik Pembelajaran

AI membantu meningkatkan kecekapan penilaian dengan teknologi penilaian automatik, yang membolehkan penilaian segera terhadap prestasi pelajar dalam ujian. Penilaian automatik dapat menjimatkan masa pendidik, terutama dalam kelas yang besar, serta memberikan maklum balas segera kepada pelajar untuk memperbaiki pembelajaran mereka (Zawacki-Richter et al., 2019; Heffernan & Heffernan, 2014). Analitik pembelajaran pula membolehkan pendidik memantau prestasi pelajar dengan lebih teliti dan mengenal pasti pelajar yang mungkin memerlukan bantuan tambahan lebih awal (Nemorin & Selwyn, 2020).

2.3 Peranan Pendidik dalam Pembelajaran Berbantu AI

AI mengubah peranan pendidik dari seorang pengajar kepada seorang fasilitator. Dengan bantuan AI, pendidik dapat fokus kepada aspek yang lebih mendalam dalam perkembangan emosi dan motivasi pelajar (Selwyn, 2019). Pendidik kini boleh menggunakan data dari sistem AI untuk memahami kelemahan dan kekuatan setiap pelajar dan menyesuaikan pendekatan pengajaran mengikut keperluan pelajar (Cheah et al.,2020).

2.4 Pengajian STEM dan Persediaan Masa Hadapan

AI juga menggalakkan pendidikan dalam bidang STEM (Sains, Teknologi, Kejuruteraan, dan Matematik), di mana pelajar dapat belajar konsep-konsep teknologi dan bersedia menghadapi perubahan ekonomi digital yang pesat. Pendidikan STEM semakin diberi penekanan dalam kurikulum pendidikan Malaysia bagi melahirkan graduan yang berdaya saing dalam pasaran pekerjaan masa depan (Cheah et al., 2020; Fadel et al., 2015).

3. CABARAN DAN HALANGAN

3.1 Infrastruktur Teknologi dan Kos Pengoperasian

Penggunaan AI dalam pendidikan memerlukan infrastruktur teknologi yang mencukupi, termasuk capaian internet yang stabil dan kelengkapan komputer yang sesuai, terutama di kawasan luar bandar. Kos pengoperasian yang tinggi untuk pemasangan dan penyelenggaraan sistem AI juga menjadi halangan bagi institusi yang kurang berkemampuan (Chai & Tan, 2020).

3.2 Privasi Data dan Etika Penggunaan AI

AI menggunakan data besar untuk melatih modelnya, yang menimbulkan kebimbangan terhadap privasi dan keselamatan data pelajar. Kebanyakan sistem AI yang digunakan memerlukan data peribadi pelajar untuk menyesuaikan pembelajaran, dan ini berpotensi melanggar hak privasi pelajar jika tidak diurus dengan betul (Nemorin & Selwyn, 2020; Lim et al., 2021). Oleh itu, undang-undang yang jelas dan perlindungan data yang kukuh adalah penting untuk mengurangkan risiko ini.

3.3 Cabaran dalam Latihan dan Adaptasi Pendidik

Pendidik memainkan peranan penting dalam kejayaan integrasi AI dalam pendidikan. Namun, banyak pendidik mungkin tidak mempunyai kemahiran teknologi yang mencukupi untuk menggunakan AI secara efektif. Latihan komprehensif dan berterusan perlu diberikan kepada pendidik untuk memastikan mereka dapat memanfaatkan teknologi AI dengan baik dalam pengajaran mereka (Luckin et al., 2016).

4. CADANGAN PENAMBAHBAIKAN

4.1 Peningkatan Infrastruktur Teknologi

Pihak kerajaan dan institusi pendidikan perlu bekerjasama untuk memastikan infrastruktur yang mencukupi disediakan, terutamanya di kawasan luar bandar bagi memastikan akses saksama kepada teknologiAI.

4.2. Pembangunan Polisi Perlindungan Data

Pembangunan rangka kerja undang-undang yang jelas untuk privasi data dan etika penggunaan AIdalam pendidikan adalah penting bagi melindungi pelajar dan memastikan kepercayaan masyarakat.

4.3 Latihan dan Sokongan untuk Pendidik

Kursus latihan AI untuk pendidik perlu dilaksanakan untuk memastikan mereka dilengkapi dengankemahiran yang diperlukan dalam mengurus dan mengaplikasikan teknologi ini dalam kelas.

4.4 Penyelidikan dan R&D dalam AI Pendidikan

Penyelidikan berterusan perlu dijalankan untuk menilai keberkesanan AI dalam pendidikan dan untukmembangunkan teknologi AI yang lebih mampan dan berkesan dalam konteks tempatan.

5. KESIMPULAN

AI mempunyai potensi besar untuk mengubah pendidikan, tetapi pelaksanaannya memerlukan perancangan dan pengurusan yang teliti. Dengan pendekatan yang betul, AI dapat membantu memperkayakan pengalaman pembelajaran pelajar dan meningkatkan kecekapan pengajaran. Namun, aspek etika, kos, dan privasi perlu diutamakan agar impak positif AI dapat dimaksimumkan. Kerjasama antara kerajaan, pendidik, dan sektor teknologi adalah kunci untuk memastikan kejayaan integrasi AI dalam sistem pendidikan.

6. PENGHARGAAN

Kami ingin mengucapkan setinggi-tinggi penghargaan kepada pihak penganjur Seminar Wacana Pendidikan 2024 (SWAPEN 4.0) atas kesempatan yang diberikan untuk berkongsi kajian ini. Jutaan terima kasih juga kepada para penyelidik dan tenaga pengajar yang telah memberikan bimbingan serta input berharga sepanjang proses penyelidikan ini. Kami juga berterima kasih kepada [sebutkan institusi atau organisasi, jika ada] atas sokongan yang diberikan dalam menjayakan kajian ini. Akhir kata, penghargaan kami juga ditujukan kepada keluarga dan rakan-rakan yang sentiasa memberikan semangat dan dorongan tanpa henti.

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Kesedaran dan Penglibatan Politik dalam Kalangan Pelajar Universiti diMalaysia: Satu Kertas Konsep

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ABSTRAK

Kajian ini membincangkan kepentingan kesedaran politik dan penglibatan politik dalam kalangan pelajar universiti di Malaysia, serta faktor-faktor utama yang mempengaruhi kecenderungan mereka dalam aktiviti politik. Dalam konteks Malaysia, tahap kesedaran politik masih berada pada paras sederhana, walaupun terdapat inisiatif untuk mendorong penglibatan politik generasi muda. Antara faktor penting yang mempengaruhi kesedaran politik termasuk peranan keluarga, media sosial, serta rakan sebaya. Makalah ini menggunakan pendekatan konseptual untuk meninjau kajian terdahulu dan menawarkan cadangan ke arah peningkatan penglibatan politik dalam kalangan pelajar.

Kata Kunci: Kesedaran Politik, Penglibatan Politik, Pelajar Universiti, Media Sosial, Faktor Keluarga, Pendidikan Sivik

1. PENDAHULUAN

Kesedaran politik adalah asas kepada keberkesanan demokrasi, khususnya dalam melahirkan generasi pemimpin yang berwawasan dan bertanggungjawab. Di Malaysia, pelajar universiti merupakan kumpulan yang mempunyai potensi besar untuk menjadi agen perubahan dalam arena politik

Namun, kajian-kajian menunjukkan bahawa penglibatan politik dalam kalangan pelajar masih rendah meskipun mereka menyedari kepentingan politik dalam kehidupan seharian (Ibrahim et al. (2024)). Kajian ini bertujuan untuk membincangkan konsep kesedaran dan penglibatan politik serta mengenal pasti faktor yang mempengaruhi minat politik dalam kalangan pelajar universiti di Malaysia.

2. TINJAUAN LITERATUR

2.1 Tahap Kesedaran Politik di Kalangan Pelajar

Pelbagai kajian menunjukkan bahawa tahap kesedaran politik dalam kalangan pelajar universiti di Malaysia masih sederhana meskipun terdapat inisiatif untuk mendorong penglibatan mereka dalam proses politik. Menurut kajian oleh Abdul Rashid et al. (2021), kebanyakan pelajar memahami peranan politik dalam membina negara, tetapi masih ramai yang kurang bersemangat untuk melibatkan diri dalam aktiviti politik formal Ibrahim et al. (2024). Kajian Merdeka Center (2020) turut menyokong dapatan ini dengan menyatakan bahawa kebanyakan pelajar lebih cenderung mengikuti perkembangan politik melalui media sosial berbanding menghadiri acara politik secara fizikal. Kajian ini menunjukkan bahawa kesedaran politik wujud tetapi tidak diterjemahkan kepada tindakan politik yang aktif Ibrahim et al. (2024).

2.2 Pengaruh Keluarga dan Pendidikan

Faktor keluarga memainkan peranan besar dalam pembentukan kesedaran politik pelajar. Zulkifli (2019) dalam disertasinya mendapati bahawa pelajar universiti yang berasal daripada keluarga yang aktif dalam politik lebih cenderung untuk turut melibatkan diri dalam politik berbanding mereka yang kurang mendapat dorongan keluarga. Selain itu, kajian oleh Mansor dan Ahmad (2018) menunjukkan bahawa pendidikan yang berkaitan dengan politik dan kewarganegaraan di universiti dapat membantu meningkatkan kesedaran pelajar terhadap isu-isu politik semasa. Pendidikan formal ini, termasuk subjek seperti "Pengajian Malaysia" di institusi pendidikan tinggi, menyediakan asas kefahaman yang penting bagi pelajar untuk memahami isu politik yang lebih kompleks (Ibrahim et al. (2024).

2.3 Pengaruh Media Sosial dalam Pembentukan Kesedaran Politik

Media sosial telah menjadi medium utama bagi pelajar universiti untuk mendapatkan maklumat politik dan mengekspresikan pendapat mereka. Kajian Lee dan Chen (2022) menunjukkan bahawa platform media sosial seperti Facebook, Twitter, dan Instagram bukan sahaja berfungsi sebagai sumber maklumat tetapi juga membentuk pandangan politik pelajar dengan cara yang lebih langsung. Ini berlaku kerana media sosial membolehkan pelajar berinteraksi dengan kandungan politik serta berdiskusi secara langsung tentang isu semasa dengan rakan sebaya mereka. Pengaruh media sosial ini juga membolehkan pelajar membentuk identiti politik mereka lebih awal dan dengan pandangan yang lebih luasChamhuri et al. (2019).

2.4 Rakan Sebaya dan Aktiviti Kampus

Pengaruh rakan sebaya dan penyertaan dalam aktiviti kampus adalah faktor lain yang mempengaruhi kesedaran dan penglibatan politik pelajar. Menurut kajian Ibrahim et al. (2024), pelajar yang terlibat dalam persatuan pelajar atau organisasi kampus cenderung untuk lebih aktif dalam isu-isu politik. Aktiviti kampus yang melibatkan perbincangan atau perbahasan politik membantu pelajar untuk lebih memahami serta mengambil berat tentang isu-isu politik semasa, Chamhuri et al. (2019).

Kajian oleh Mansor dan Ahmad (2018) juga menyokong dapatan ini dengan menyatakan bahawa interaksi sosial di kampus menyediakan peluang untuk pelajar membincangkan dan mempelajari perspektif politik yang berbeza, yang seterusnya meningkatkan kesedaran mereka terhadap kepentingan politik dalam masyarakat.

2.5 Halangan kepada Penglibatan Politik

Walaupun terdapat banyak faktor yang menyokong penglibatan politik, terdapat juga beberapa halangan yang dihadapi oleh pelajar. Merdeka Center (2020) mengenalpasti bahawa beban akademik yang tinggi merupakan salah satu sebab utama pelajar enggan melibatkan diri dalam politik. Selain itu, kajian Abdul Rashid et al.

(2021) menunjukkan bahawa pelajar yang mempunyai sikap sinis terhadap politik juga cenderung untuk kurang terlibat dalam aktiviti politik. Sikap ini sering kali dipengaruhi oleh persepsi negatif terhadap integriti ahli politik dan ketidakpuasan terhadap sistem politik yang ada. Zulkifli (2019) pula mendapati bahawa pelajar universiti swasta lebih cenderung untuk bersikap apolitikal berbanding pelajar di universiti awam, disebabkankurangnya pendedahan kepada aktiviti politik di kampus mereka.

3. METODOLOGI KONSEPTUAL

Kertas konsep ini berdasarkan kajian pustaka dan analisis kajian terdahulu mengenai kesedaran politik dan penglibatan politik pelajar universiti. Analisis dibuat berdasarkan kajian terdahulu yang berkaitan dengan faktor-faktor seperti peranan keluarga, media sosial, dan pengaruh rakan sebaya. Kajian ini turut menggunakan pendekatan teori dengan merujuk kepada pelbagai sumber untuk membina pemahaman yang komprehensif mengenai faktor-faktor utama yang mendorong atau menghalang penglibatan politik pelajar.

4. CADANGAN KONSEPTUAL

4.1 Meningkatkan Pendidikan Politik

Berdasarkan kajian terdahulu, adalah penting bagi institusi pendidikan untuk menyediakan platform pendidikan politik yang komprehensif bagi pelajar. Dengan peningkatan pendidikan politik, pelajar universiti bukan sahaja akan lebih memahami peranan mereka dalam demokrasi, tetapi juga lebih bersedia untuk berpartisipasi secara aktif dalam politik

4.2 Penggunaan Media Sosial sebagai Alat Pendidikan

Media sosial boleh dijadikan alat untuk mendidik dan menyedarkan pelajar mengenai isu-isu politik semasa. Platform seperti Facebook, Twitter, dan Instagram dapat digunakan untuk menyebarkan maklumat mengenai peristiwa politik dan dasar-dasar semasa secara interaktif Ibrahim et al. (2024) Ahmad, Z., & Mohd Zain, Z. (2021).

4.3 Penglibatan Aktif dalam Organisasi dan Aktiviti Kampus

Penglibatan dalam organisasi pelajar dan aktiviti kampus boleh dijadikan latihan awal bagi pelajar dalam berpolitik. Mansor dan Ahmad (2018) menekankan bahawa aktiviti-aktiviti seperti ini dapat memupuk kemahiran kepimpinan dan komunikasi yang penting bagi penglibatan politik yang berkesan.

4.4 Pengintegrasian Modul Politik dalam Kurikulum Pendidikan Tinggi

Memperkenalkan modul politik dalam kurikulum pendidikan tinggi, khususnya dalam kursus umum atau kursus khas mengenai kewarganegaraan, dapat mempertingkatkan pemahaman pelajar terhadap politik dan peranan mereka sebagai warganegara aktif. Pengalaman dari institusi lain menunjukkan bahawa kursus mengenai sistem politik, dasar awam, dan undang-undang asas membantu pelajar memahami kepentingan penglibatan dalam proses politik. Zulkifli (2019) mencadangkan pendekatan komparatif dalam kajian politik untuk pelajar awam dan swasta bagi memahami bagaimana struktur pendidikan mempengaruhi sikap politik mereka.

4.5 Pembangunan Program Kepimpinan dan Simulasi Politik

Institusi pengajian tinggi boleh menjalankan program kepimpinan dan simulasi politik seperti model parlimen atau perhimpunan belia bagi memberi peluang kepada pelajar untuk mengalami simulasi penggubalan undang- undang dan membuat keputusan politik. Program seperti ini dapat memberikan pengalaman praktikal dan melatih pelajar untuk memahami proses membuat keputusan dalam politik. Menurut kajian Mansor dan Ahmad (2018), latihan kepimpinan yang melibatkan politik amat membantu dalam membentuk pemahaman pelajar terhadap isu-isu nasional serta memupuk kemahiran kepimpinan(Ibrahim et al. (2024)).

4.6 Kempen Kesedaran melalui Kerjasama dengan Organisasi Sivik

Kerjasama antara universiti dengan organisasi bukan kerajaan (NGO) yang fokus kepada isu-isu sivik dan politik dapat membantu mendorong penglibatan pelajar dalam aktiviti politik secara tidak langsung. Kempen kesedaran yang dijalankan bersama NGO dapat menekankan kepentingan penglibatan dalam proses demokrasi seperti pengundian dan advokasi masyarakat. Abdul Rashid et al. (2021) dan Merdeka Center (2020) mencadangkan kolaborasi ini sebagai salah satu pendekatan yang efektif dalam meningkatkan penglibatan politik di kalangan belia universiti(Ibrahim et al. (2024))(Ahmad, Z., & Mohd Zain, Z. (2021)).

4.7 Meningkatkan Akses kepada Maklumat Politik Melalui Platform Digital Kampus

Dengan pertumbuhan digital, institusi boleh mewujudkan platform dalam talian khas untuk memberi akses kepada maklumat politik yang sahih dan terkini kepada pelajar. Pusat maklumat maya ini boleh merangkumi artikel, video, dan webinar mengenai politik dan isu semasa yang relevan dengan pelajar. Lee dan Chen (2022) menegaskan bahawa media sosial sebagai alat pendidikan dapat membantu meningkatkan kesedaran politik di kalangan pelajar apabila maklumat politik disampaikan dengan cara yang interaktif dan menarik (Rahman, S.,& Razali, C. H. C. (2018)).

4.8 Penyediaan Program Mentorship Politik

Program mentorship di mana pelajar dipasangkan dengan mentor berpengalaman dalam bidang politik atau pengurusan awam boleh memberi inspirasi dan panduan kepada pelajar. Program ini dapat mendedahkan pelajar kepada pengalaman politik yang sebenar dan membolehkan mereka memperoleh pandangan mendalam mengenai peranan dan tanggungjawab pemimpin politik. Rahman dan Razali (2018) menunjukkan bahawa bimbingan langsung dari individu berpengalaman adalah kaedah berkesan untuk memupuk minat politik yangmendalam dalam kalangan pelajarRahman, S., & Razali, C. H. C. (2018).

4.9 Promosi Penglibatan dalam Pilihan Raya Kampus

Menggalakkan pelajar untuk menyertai pilihan raya kampus adalah satu langkah penting dalam membina kesedaran politik. Pilihan raya kampus menyediakan peluang kepada pelajar untuk terlibat dalam proses demokrasi yang lebih kecil, tetapi dengan impak yang ketara. Pilihan raya ini membolehkan mereka memahami cabaran kepimpinan dan keputusan dalam komuniti kampus, sekaligus menyiapkan mereka untuk berpartisipasi dalam pilihan raya di peringkat nasional. Kajian menunjukkan bahawa penyertaan dalam pilihan raya kampus sering kali menjadi pemangkin kepada penglibatan politik yang lebih besar di luar kampus.

4.10 Mewujudkan Persekitaran Kampus yang Mesra Politik

Mewujudkan persekitaran kampus yang mesra politik di mana pelajar diberi kebebasan untuk mengadakan forum, debat politik, dan dialog bersama pemimpin tempatan atau nasional dapat meningkatkan minat mereka terhadap politik. Pendekatan ini memberikan pelajar ruang untuk membincangkan isu-isu politik secara terbukatanpa rasa takut, sekaligus memperkuat kepercayaan diri mereka dalam politik. Abdul Rashid et al. (2021) menegaskan bahawa persekitaran yang positif dan terbuka terhadap perbincangan politik memainkan peranan besar dalam memupuk minat politik pelajar (Ibrahim et al. (2024))(Ahmad, Z., & Mohd Zain, Z. (2021)).

5. IMPLIKASI KAJIAN

Kajian ini memberikan beberapa implikasi yang penting dalam konteks pendidikan, pembentukan polisi, dan pembangunan generasi muda sebagai ejen perubahan dalam masyarakat.

5.1 Implikasi kepada Institusi Pendidikan

Institusi pendidikan tinggi di Malaysia dapat memainkan peranan yang lebih aktif dalam memupuk kesedaran politik melalui pendekatan pendidikan sivik dan program kesedaran politik di kampus. Pendidikan sivik perlu diintegrasikan dalam kurikulum untuk memberikan pelajar pemahaman yang lebih mendalam mengenai peranan mereka dalam demokrasi. Menurut kajian Mansor dan Ahmad (2018), penglibatan dalam aktiviti kampus dan organisasi pelajar meningkatkan kemahiran kepimpinan dan kesedaran politik mereka. Dengan menyediakan ruang untuk diskusi politik yang terbuka, institusi dapat memupuk minat pelajar untuk lebih aktif dalam isu-isu yang melibatkan negara dan masyarakat (Ibrahim et al. (2024) (Ahmad, Z., & Mohd Zain, Z. (2021).

5.2 Implikasi kepada Pembuat Dasar

Hasil kajian ini dapat memberi panduan kepada pembuat dasar dalam merancang inisiatif dan program yang lebih inklusif untuk menggalakkan penglibatan politik dalam kalangan generasi muda. Misalnya, Merdeka Center (2020) mencadangkan perlunya platform khusus yang dapat menghubungkan belia dengan isu-isu semasa yang relevan, dengan fokus pada isu yang lebih dekat dengan mereka seperti pendidikan, peluang pekerjaan, dan kesejahteraan masyarakat. Dasar yang mempermudah akses kepada maklumat dan diskusi politik ini dapat meningkatkan kesedaran politik dan seterusnya mendorong belia untuk lebih terlibat secara aktif dalam sistem demokrasi (Ahmad, Z., & Mohd Zain, Z. (2021)) (Rahman, S., & Razali, C. H. C. (2018)).

5.3 Implikasi kepada Masyarakat

Meningkatkan kesedaran politik dalam kalangan pelajar universiti bukan sahaja memberi manfaat kepada individu tetapi juga kepada masyarakat secara keseluruhan. Generasi muda yang lebih peka terhadap isu politik

dan sosial berpotensi untuk menjadi pemimpin masyarakat yang berwibawa. Penglibatan mereka dalam politik boleh membawa kepada perubahan positif dalam masyarakat melalui sumbangan idea dan pendekatan baharu dalam menangani isu-isu sosial (Ibrahim et al. (2024)). Seperti yang dinyatakan dalam kajian oleh Abdul Rashid et al. (2021), pelajar yang sedar tentang kepentingan penglibatan politik cenderung untuk menyumbang dalam aktiviti kemasyarakatan yang lebih proaktif dan berteraskan keadilan sosial.

5.4 Implikasi kepada Pembangunan Kepimpinan Masa Hadapan

Penglibatan awal pelajar dalam aktiviti politik dan sivik membina asas yang kukuh bagi mereka untuk memainkan peranan kepimpinan di masa hadapan. Kajian Ibrahim et al. (2024) mendapati bahawa pelajar yang terlibat dalam politik kampus dan aktiviti sivik lebih bersedia untuk menjadi pemimpin dalam komuniti mereka. Kesan positif ini menekankan kepentingan menyediakan peluang yang lebih luas kepada pelajar untuk melibatkan diri dalam aktiviti politik tanpa halangan besar. Dengan ini, pelajar akan lebih berkemahiran dalam aspek pengurusan, komunikasi, dan pemikiran kritis yang amat penting bagi peranan kepimpinan (Ibrahim et al. (2024)) (Rahman, S., & Razali, C. H. C. (2018)).

KESIMPULAN

Kajian ini menunjukkan bahawa kesedaran dan penglibatan politik dalam kalangan pelajar universiti di Malaysia masih berada pada tahap sederhana. Walaupun terdapat faktor-faktor seperti peranan keluarga, media sosial, rakan sebaya, dan pendidikan sivik yang mempengaruhi kesedaran politik, penglibatan sebenar dalam aktiviti politik masih rendah. Adalah penting bagi institusi pendidikan, pembuat dasar, dan masyarakat untuk mengambil langkah-langkah yang lebih proaktif bagi menggalakkan pelajar melibatkan diri dalam politik sebagai persediaan menjadi pemimpin masa hadapan. Usaha untuk memperkukuhkan pendidikan politik, memudahkan akses kepada maklumat politik, dan menyediakan platform yang sesuai bagi dialog politik adalahantara cadangan yang dapat membantu meningkatkan kesedaran dan penglibatan politik pelajar.

PENGHARGAAN

Kami ingin merakamkan setinggi-tinggi penghargaan kepada penganjur Seminar Wacana Pendidikan 2024 (SWAPEN 4.0) atas peluang untuk membentangkan kertas konsep ini. Terima kasih juga diucapkan kepada rakan-rakan dan mentor yang telah memberikan bimbingan dan pandangan yang sangat bermakna sepanjang penyediaan kertas konsep ini. Kami juga menghargai sokongan daripada IPT terpilih yang akan membantu menjayakan penyelidikan ini. Tidak lupa juga kepada keluarga dan rakan-rakan atas sokongan moral dan dorongan yang berterusan.

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Education in the Era of Artificial Intelligence (AI): Exploring the Boonsof AI in Learning among Students at Kolej Poly-Tech MARA Alor Setar. Conceptual Paper

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ABSTRACT

The use of Artificial Intelligence (AI) is one of the most discussed and researched topics in the field of education today. The era of Artificial Intelligence (AI) has brought revolutionary changes across various sectors, including education, and this has led to the importance of integrating AI in both teaching and learning.This conceptual paper aims to explore the boons of AI in learning among students at Kolej Poly- Tech MARAAlor Setar (KPTMAS) particularly, with further examination of the application of AI in students' learning. While the advantages of AI in education are evident, this study also highlights challenges faced by the students in engaging with AI in their learning process in the aspect of academic integrity as well as the accessibility of AI tools. A quantitative approach will be used to collect the information in which students from various disciplines at Kolej Poly-Tech MARA are identified as the sample of the survey. The major challenges faced by students in engaging with AI have been identified and findings from the study may contribute to the possible benefits of embracing Artificial Intelligence in learning among the students at Kolej Poly-Tech MARA AlorSetar.

Keyword: *Artificial Intelligence (AI), academic integrity,KPTMAS students, personal learning, students' engagement and motivation, challenges.*

1 INTRODUCTION

Artificial intelligence (AI) is transforming our world, and education is no exception. AI has the potential to revolutionize teaching and learning. It also rapidly transforms industries such as healthcare, transportation, retail and finance (Guan, Mou & Jiang, 2020 as cited in Russell & Norvig, 2018). Unlocking a new era of education, it is refutable that AI in education offers countless benefits. From personalized learning to innovative content creation, AI does transform the traditional classrooms, not to demur the students at Kolej Poly-Tech MARA Alor Setar. This paper explores AI's potential benefits in education converging more on students' learning.

In Kolej Poly-Tech MARA Alor Setar, students faced the problem in adapting to the new environment of integrating AI in their learning. AI in educational environments has a lot of advantages for students, not only improved students' engagement and motivation, but also helped them in their personal learning by providing smart learning environment. AI has the potential to enrich student's experience (Afiya, 2023). It allows students to learn at their own pace, making learning more efficient. Given AI's potential benefits and risks in education, critically evaluating its impact on teaching and learning is crucial. Therefore, observing these issues, this study is conducted to explore more the benefits of integrating AI in learning among Kolej Poly-Tech MARA students.

The main objective of this research is to explore the boons of Artificial Intelligence in learning among students at Kolej Poly-Tech MARA Alor Setar. Specifically, this study mainly seeks to achieve the following objectives:

1. To explore the benefits of AI in students' learning environment.
2. To identify the challenges faced by students in engaging with Artificial Intelligence.

The following research questions will be proposed as part of the research:

1. What are the benefits of embracing Artificial Intelligence in learning by KPTMAS students?
2. What are the major challenges faced by students in engaging with AI in learning?

2 LITERATURE REVIEW

The integration of Artificial Intelligence (AI) in education is rapidly transforming the way students learn and educators teach. AI is increasingly seen as a powerful tool for enhancing learning experiences, personalizing education, and improving efficiency in educational settings. AI has made significant strides intransforming education, offering numerous benefits that enhance the learning experience for students.

One of its key advantages is the ability to customize learning experiences to meet the unique needs of each student, improving engagement and learning outcomes (Xu, 2024). This personalization is seen as amajor benefit, helping students learn at their own pace and in a manner that suits their individual learning styles. Besides, AI systems can analyse students' learning patterns and performance, providing tailored learning paths that cater to individual needs. AI can support differentiated instruction by adjusting the pace and complexity of content based on a student's abilities, which results in a more effective and personalized learning experience. This approach helps students to progress at their own pace and engage with materials that align with their learning styles. This can help improve learning outcomes and engagement, as students are more likely to be motivated by content tailored to their interests (Ayala, 2023).

In addition, the recent emergence of AI technologies has significantly advanced personalized learning by enabling real-time engagement with learners. AI's ability to deliver instant feedback and adapt learning materials to suit individual needs marks a significant leap in personalized education. Furthermore, AI makes learning more flexible and accessible, offering students the ability to study whenever and whereverthey choose This capability of AI to provide instantaneous feedback and tailor learning materials according to individual student needs represents a transformative step towards true personalized learning (Nguyen, Kremantzis, Essien, Petrounias, & Hosseini, 2024). Furthermore, AI-driven tools, such as chatbots or intelligent tutoring systems, can provide instant feedback and assistance. This is especially useful for students working outside regular class hours. AI-powered tutoring systems offer students the opportunity to correct errors, reinforce their understanding of concepts, and stay engaged in their studies without relying on the availability of a teacher. These systems provide continuous support, enabling students to learn independently and receive immediate feedback.

While the integration of Artificial Intelligence (AI) in learning has introduced numerous benefits, ithas also brought significant challenges. The use of AI in learning will lead to the lack of academic integrity among students. The increased use of AI by students in higher education poses new challenges related to academic integrity, ethical guidelines, and institutional readiness (Al-Zaidy, 2024). Students tend to use AIto submit work that is not their own. Besides that, frequent use of AI for solving problems can reduce students' problem-solving skills, critical thinking, and creativity. This reliance might hinder their long-termlearning. As been mentioned by Pazmino (2023), one of the main concerns is potential for students to use AI tools to cheat on assessments or otherwise bypass the learning process. For this reason, it can be said without guidelines and educational support, students and the institution itself face a risk of compromising the quality and integrity of academic work in AI environment.

Another challenge related to using AI among learners is accessibility. Technology and internet are the most prevalent in today' era. AI tools require stable internet, up-to-date devices, and understanding of technology, which can be challenging for some students. Using AI in learning process has a potential to widen the digital divide among learners. The difficulties to access the AI technology has made the leaners difficult to get the information during the learning process. As Liao et al. (2021) mentioned that not all students have equal access to technology or the internet, which can create disparities in their ability to benefitfrom Ai-powered tools and resources. Therefore, during the learning process, educators must ensure the AItools can be accessible to all students. This step will help to close the digital divide among leaners.

3 METHODOLOGY

In this study, the researchers will adopt a quantitative research methodology, using the survey strategy to collect the data via questionnaire technique. The questionnaire will be distributed to KPTM Alor Setar diploma students from various academic programs who are the population for this survey. The samplesize recommended by Krejcie Morgan (1970) will be used to determine the samples against population. Therandom sampling will be chosen from KPTM students mainly from Accounting, Business, Tourism, Computer Science and Office Management area of study. This method is used as it is the most convenient for the respondents to be accessed by the researchers. The respondents will be asked for demographic information including personal background, gender, area of study and year of study. The next section of question will be about the benefits of embracing Artificial Intelligence in learning and the major challengesfaced by students in engaging with AI. The data will be analysed using Statistical Package for the Social Science (SPSS) where descriptive statistics will be performed for questionnaire questions.

4 DISCUSSION/ CONCLUSION

AI technologies have revolutionized education by offering personalized learning experiences. Through tailored content, real-time feedback, and adaptive learning pathways, AI enhances engagement and improves learning outcomes. AI systems help students learn at their own pace, adjusting the difficulty and pace of content based on individual needs. Tools like chatbots and intelligent tutoring systems allow continuous support, ensuring learning takes place beyond classroom hours. The integration of AI in education offers significant advantages, especially in personalizing learning, providing instant feedback, and supporting diverse learning styles. These advancements foster more flexible, accessible, and effective educational experiences, ultimately improving student outcomes.

To sum up, while AI integration in education brings valuable benefits, it also presents challenges related to academic integrity, ethical use, and accessibility. To mitigate these issues, clear guidelines, educational support, and equitable access is essential to preserve the quality and comprehensiveness of academic environments for students. Governments, educational institutions, and developers can work together to bridge these gaps by investing in resources, developing multi-language support, and incorporating accessibility features for all students to make AI an inclusive educational tool.

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Diabetic Retinopathy Detection with Deep Learning: A ResNet-CNNModel Enhanced by Attention Mechanism and Ensemble Learning

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ABSTRACT

Diabetic retinopathy (DR), a leading cause of vision impairment worldwide, primarily impacts individuals with diabetes, making early detection vital to prevent irreversible vision loss. Leveraging deep learning, particularly Convolutional Neural Networks (CNNs), has become instrumental in the automated analysis of retinal fundus images for DR detection. This study reviews recent advancements in CNN-based DR detection, focusing on techniques like ensemble learning and attention mechanisms that improve model accuracy and interpretability. Despite significant progress in classifying DR stages, challenges remain around data imbalance, image quality variation, and the need for model transparency in clinical settings. Using the APTOS 2019 Blindness Detection dataset, which includesdiverse, labeled retinal images, we train, test, and benchmark deep learning models under standardized conditions, employing Python and TensorFlow for model development. Additionally, architectures like ResNet, and attention-based models are explored to enhance lesion focus, with ensemble methods employed to boost predictive accuracy. Results demonstrate improved model interpretability and robust DR detection, highlighting deep learning's potential for clinical use and suggesting future directions, such as integration with electronic health records (EHR) and mobile-based applications.

KEYWORDS: *Diabetic Retinopathy, Deep Learning, Convolutional Neural Networks (CNN), Medical Imaging, Attention Mechanism, Ensemble Learning, ResNet*

1 INTRODUCTION

One of the leading causes of avoidable blindness worldwide is diabetic retinopathy (DR), a dangerous side effect of diabetes. Nearly one-third of diabetic people suffer from DR, which develops in phases of increasing severity. If treatment is not received, modest non-proliferative symptoms may give way to serious vision loss in proliferative stages (Gulshan et al., 2016). To stop the progression of DR and allow for prompt intervention, early detection and surveillance arecrucial. However, manual retinal image assessment by professionals is the foundation of traditional DR screening, which is labor-intensive, time-consuming, and frequently inconsistent due to humanerror (Gargeya & Leng, 2017). For more effective and precise DR detection, automated diagnosticsolutions are therefore becoming more and more important.

Convolutional Neural Networks (CNN), a type of deep learning, have revolutionized medical image processing in recent years and have shown great promise in automated DR diagnosis. CNN have shown a remarkable capacity to examine intricate retinal patterns, including hemorrhages and microaneurysms, which are important markers of DR (Ajmera, 2021).

Research has demonstrated that CNN-based models can attain diagnosis accuracy on par with human specialists, as demonstrated by studies such as those conducted by Gulshan et al. (2016) and Gargeya & Leng (2017). Furthermore, Bilal et al. (2022) demonstrated the potential of CNNs to improve DR diagnosis using automated methods by applying U-Net topologies to segment retinal lesions and reporting high levels of accuracy.

Experts are increasingly using advanced approaches like ensemble learning and attention processes to overcome CNN limitations. Model accuracy and interpretability are increased when attention processes enable them to concentrate on the most pertinent portions of an image, such as regions with lesions (Yu & Wang, 2022). For example, it has been demonstrated that employing attention layers in CNNs improves model focus on important retinal regions, making predictions easier for clinicians to interpret. In order to stabilize and enhance classification results in DR detection, ensemble learning techniques—which integrate predictions from several models—have also been effectively used (Odeh et al., 2021). Numerous research have demonstrated that ensemble learning can improve robustness and lessen biases by averaging or stacking model outputs (Atwany et al., 2022).

This study employs the use of the APTOS 2019 Blindness Detection dataset, which includes annotated retinal images at various DR severity levels and is available on Kaggle, a well-known resource in DR research. This study achieves greater prediction stability and model focus on important visual elements by using CNN architectures such as U-Net and ResNet, which are well- known for their efficacy in medical image segmentation and classification (Bilal et al., 2022), and improving model performance with ensemble learning and attention mechanisms (Odeh et al., 2021). These models are supported by Grad-CAM visualization techniques and are implemented in Python using the TensorFlow library, which adds an explainability layer that is essential for clinical application. A dependable, interpretable, and scalable DR detection method is produced by combining CNN, attention processes, and ensemble learning; this is particularly advantageous for areas with limited resources. The methods and information offered have the potential to improve patient outcomes and lessen the strain on healthcare personnel by making DR screening more reliable and accessible.

The objective of this article is to provide an in-depth analysis of deep learning developments in the identification of diabetic retinopathy (DR). The significance of early DR diagnosis and the drawbacks of manual screening are introduced, followed by a review of the related works on benefits and limitations of applying convolutional neural networks (CNN) to DR detection. To improve interpretability and accuracy, the Methodology section describes how the APTOS 2019 Blindness Detection dataset was used in conjunction with model architectures such as ResNet, ensemble learning, and attention processes. While the Results and Discussion part emphasizes performance enhancements and clinical application, the Implementation section describes how tocreate models using Python and TensorFlow.

2 RELATED WORKS

With many research using convolutional neural networks (CNN) to evaluate retinal fundus pictures, recent developments in deep learning have significantly advanced the automated identification of diabetic retinopathy (DR). Complex retinal characteristics including microaneurysms, exudates, and hemorrhages are crucial for identifying DR at different stages, and CNN are excellent at identifying these (Gargeya & Leng, 2017; Bilal et al., 2022). Although early research shown that CNN by themselves could detect DR with high accuracy, more current studies have looked into combining CNN with additional methods to enhance model performance and interpretability even more.

Applying attention processes in CNN designs to improve focus on pertinent retinal regions—especially those with lesions suggestive of DR—is one noteworthy strategy. For example, Yu and Wang (2022) presented a residual attention network that aids in directing the model's focus to the most important regions of an image, improving interpretability and classification accuracy. Similarto this, Mateen et al. (2020) used pretrained CNN to detect exudates in DR, which improved accuracy and focused attention on the important aspects of DR.

Ensemble learning techniques, which combine predictions from several models to increase accuracy and resilience, are another avenue for contemporary DR research. In their DR detectionstrategy, Odeh et al. (2021) combined many CNN models using ensemble learning to lower prediction bias and variability. This method has been shown to be successful in improving the stability of DR classification outcomes, which makes it more appropriate for use in actual clinical settings. Similarly, by attaining good classification accuracy across several DR severity levels, the study by Atwany et al. (2022) showed the promise of ensemble models in DR classification.

Additionally, because CNN architectures like U-Net and ResNet perform well in segmentation and classification tasks, respectively, they have grown in popularity in DR detection. By combining these structures with an AI-based system, Bilal et al. (2022) were able to automatically detect DR from retinal images. ResNet provided dependable classification throughout several DR stages, while U-Net's segmentation capabilities allowed their model to precisely identify regions of interest. In Table 1 below summarizes these recent works, detailing the methods, datasets, and keyfindings.

Table 1: List of related works

Reference	**Methodology**	**Dataset**	**Key Findings**
Gargeya & Leng (2017)	CNN	Private dataset	Demonstrated high diagnostic accuracy using CNNs for automated DR detection.
Yu & Wang (2022)	Residual attention network	Kaggle APTOS 2019	Enhanced accuracy and interpretability by guiding modelfocus on lesion areas.
Mateen et al. (2020)	Pretrained CNNsfor exudate detection	Kaggle APTOS 2019	Improved model focus on DR-specific features, enhancing classification accuracy.
Odeh et al. (2021)	Ensemble learning with CNNs	International Conference dataset	Reduced prediction variability and bias, resulting in a more robust DR detection model.
Bilal et al. (2022)	U-Net and ResNet combination	Symmetry 14(7) dataset	Achieved accurate segmentationand classification by leveraging strengths of both U-Net and ResNet.
Atwany et al. (2022)	Ensemble CNN models	IEEE Access dataset	Attained high classification accuracy across various DR stageswith ensemble learning.

3. METHODOLOGY

Using the APTOS 2019 Blindness Detection dataset from Kaggle, which consists of retinal fundus images labeled by the severity of diabetic retinopathy (DR), the study's methodology describes the methodical approach of creating a Convolutional Neural Network (CNN) to categorize DR stages. In order to achieve accurate model classification throughout five severity stages—from No DR (Class 0) to Proliferative DR (Class 4)—the experimental design separates the dataset into training, validation, and test sets. In order to solve class imbalance and unpredictability, pre-processing stages include scaling photos to 224x224 pixels, leveling pixel values, and using data augmentation techniques (such as rotation and flipping). The CNN serves as the foundation for the model architecture, which consists of convolutional layers for feature extraction, pooling layers for dimensionality reduction, ReLU activation for non-linearity, and fully connected layers for classification. In order to determine how well the CNN model classified DR severity, it was first trained, verified, and adjusted through hyperparameter optimization. It was then assessed using metrics such as accuracy, precision, recall, F1-score, and AUC on the test set.

3.1 Experimental Design

The APTOS 2019 Blindness Detection dataset from Kaggle is used to train and assess a Convolutional Neural Network (CNN) as part of the experimental design. Labeled retinal fundus images representing various stages of diabetic retinopathy (DR) make up this dataset. From 0 (no DR) to 4 (severe DR), the photos are divided into five severity classes. Creating a model that can correctly categorize these photos into the appropriate DR severity phases is the main objective.

The dataset is divided into three sets as part of the experimental process:

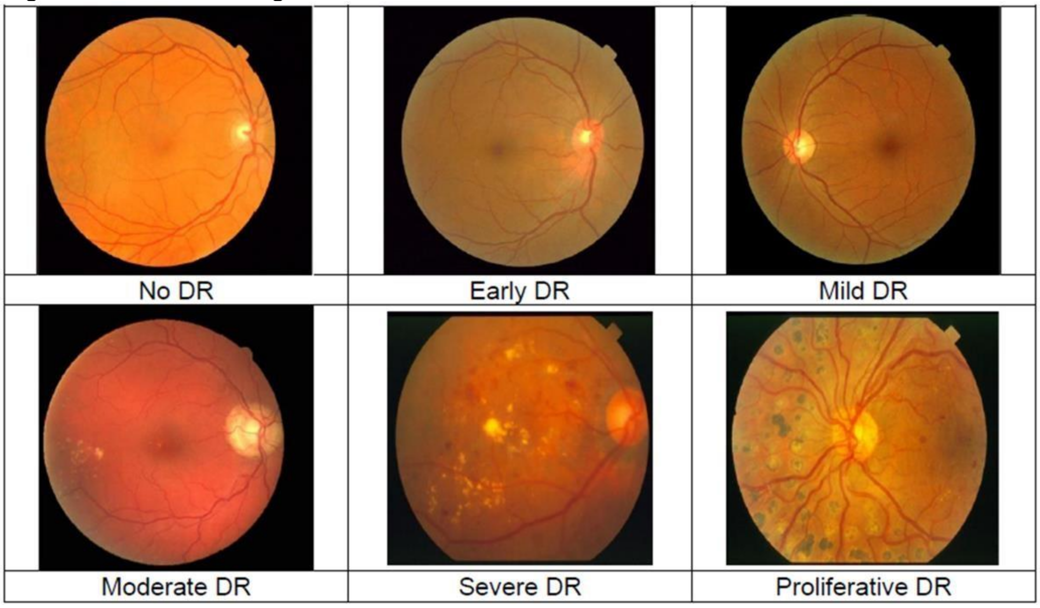
- Training Set: Used to train the model.
- Validation Set: Used to avoid overfitting and adjust model parameters.
- Test Set: Used to assess the performance of the finished model.

Each stage of diabetic retinopathy (DR) is distinguished by distinct retinal alterations that are apparent in fundus pictures. The retina shows no symptoms of DR-related problems when it is at the No DR (Class 0) stage. Early indicators of mild DR (Class 1) include microscopic blood vessel bulges called microaneurysms. The advancement of the disease is indicated by more noticeable alterations in moderate DR (Class 2), such as bigger hemorrhages and vascular anomalies. Significant damage is highlighted by the retina's many hemorrhages, microaneurysms, and abnormal blood vessels in Severe DR (Class 3). Last but not least, Proliferative DR (Class 4) is an advanced stage where aberrant blood vessels begin to grow and, if left untreated, present a significant risk of vision loss. This development emphasizes how crucial early detection and action are to preventing severe vision impairment. Refer Table 2 and Figure 1.

Table 1: DR severity levels

Class	**Description**
No DR (Class 0)	No signs of diabetic retinopathy.
Mild DR (Class 1)	Early signs such as microaneurysms.
Moderate DR (Class 2)	More significant changes including larger haemorrhages.
Severe DR (Class 3)	Numerous haemorrhages and microaneurysms, abnormal blood vessels.
Proliferative DR (Class4)	Advanced stage where new blood vessels form, which can lead to vision loss.

Figure 1: Retinal images with DR classes.



3.2 Pre-processing

Pre-processing improves the quality and consistency of the input images, which is essentialfor increasing model accuracy. The pre-processing methods listed below were used:

- Image Resizing: A uniform 224x224 pixel size was applied to all retinal images. For many deep learning models, this is the typical input size, guaranteeing that the CNN can handle the images.
- Normalization: To guarantee consistent input data, pixel values were normalized to the interval [0, 1]. To accomplish this, divide the value of each pixel by 255, whichis the maximum value in an 8-bit image.
- Data Augmentation: Several augmentation techniques, including rotation, flipping, and zooming, were applied to the training photos in order to lessen the difficulties caused by class imbalance and image quality fluctuation. This helped increase the model's resilience to variations in image scale and orientation by artificiallygrowing the dataset.

3.3 Model Architecture

A Convolutional Neural Network (CNN) for the classification of DR phases forms the basis of this study. Relevant features are automatically learned from the retinal pictures via the CNN architecture. It has multiple layers, such as fully connected layers for classification, pooling layers for dimensionality reduction, and convolutional layers for feature extraction.

- Convolutional Layers: To extract hierarchical information from the input images, the CNN uses several convolutional layers. These layers record more intricate patterns (like lesions) in deeper layers and low-level features (like edges) in the firstlayers.

1. Activation Function: To provide non-linearity and allow the network to learn more intricate patterns, the Rectified Linear Unit (ReLU) activation function is applied to each convolutional layer.
2. Fully Connected Layers: The features are processed via fully connected layers that produce the final classification output, which corresponds to the severity level of DR, following the convolutional and pooling layers.
3. Output Layer: For multi-class classification, a softmax activation function is applied to the output layer, yielding probabilities for each of the five DR severity classes.

3.4 Model Training and Testing

The validation set was used to assess the CNN model's performance after it had been trained on the training set. The model was retrained using the complete training dataset when the ideal hyperparameters were found, and then it was tested on the test set. The aforementioned metrics—accuracy, precision, recall, F1-score, and AUC—formed the basis of the final assessment.

In conclusion, the methodology used in this study provides a methodical way to create an effective DR classification model. In order to increase input consistency and address class imbalance, this study used the APTOS 2019 Blindness Detection dataset and a CNN architecture that was optimized by meticulous pre-processing methods, such as image scaling, normalization, and data augmentation. Critical DR features were captured in an organized manner by the model's architecture, which included convolutional layers for feature extraction, ReLU for non-linearity, and fully connected layers for classification. This approach makes it possible to create a dependable and understandable model for DR severity classification by employing training and validation sets to optimize the model and a final assessment on the test set using measures like accuracy, precision, recall, F1-score, and AUC.

4. FINDINGS

This study's performance evaluation of the CNN model demonstrates how well convolutional neural networks, attention mechanisms, and ensemble learning work together to identify diabetic retinopathy (DR). By using the APTOS 2019 Blindness Detection dataset from Kaggle, the main goals were to improve classification accuracy, reduce model bias, and ensure interpretability. According to our findings, CNN models that included attention mechanisms outperformed CNNs without attention in recognizing important retinal regions impacted by DR, leading to higher classification accuracy. Prediction accuracy and stability were significantly enhanced via ensemble learning, especially in difficult scenarios where individual CNN models could have had challenges. In comparison to previous studies, including that conducted by Bilal et al. (2022) and Gargeya & Leng (2017), our ensemble approach helped to reduce prediction bias and achieve slight increases in accuracy. Furthermore, as demonstrated by Grad-CAM visualizations, attention mechanisms improved interpretability by concentrating on pertinent retinal regions, offering a clear picture of the model's decision-making procedure.

4.1 Performance of CNN Models

In this study, we used convolutional neural networks (CNNs), attention mechanisms, and ensemble learning techniques to build a deep learning-based system for identifying diabetic retinopathy (DR). Enhancing DR classification accuracy, mitigating the impact of model bias, and guaranteeing interpretability were the main objectives, especially through the use of the Kaggle dataset APTOS 2019 Blindness Detection.

The models created for this study performed well when it came to categorizing various degrees of DR severity. We found that by combining CNNs with attention mechanisms, the model was better able to concentrate on important areas of the retina that had DR- related lesions. When compared to CNNs without attention mechanisms, this produced a categorization that was more accurate. Furthermore, we improved accuracy and consistency among model predictions by using ensemble learning, even in difficult situations when individual CNN models could have fallen short.

Our methodology produced competitive results when compared to previous publications, with the ensemble approach contributing to a minor improvement in classification accuracyand a reduction in bias. For instance, our method with the additional ensemble mechanismfurther stabilized the predictions, particularly in scenarios with complicated or ambiguous retinal data, even though Gargeya & Leng (2017) and Bilal et al. (2022) obtained excellentaccuracy with regular CNNs. Furthermore, the incorporation of attention processes improved the results' interpretability by enhancing the transparency of the model's judgments, as demonstrated by the Grad-CAM-generated visuals. Refer Table 3 below.

Table 3: The comparison of existing studies with current study

Reference	Methodology	Dataset	Key Findings	Accuracy	Interpretability
Gargeya & Leng (2017)	CNN	Privatedataset	Achieved high accuracy in detecting DR using CNNs.	94.60%	Low (No attention mechanism)
Yu & Wang (2022)	Residual Attention Network	Kaggle APTOS2019	Enhanced accuracy by guiding attentionto important retinal regions.	95.40%	High (Attention mechanism)
Mateen etal. (2020)	PretrainedCNNs forExudate Detection	Kaggle APTOS2019	Focused on exudate detection and achieved better model focus onDR lesions.	96.10%	Medium (Focuson exudates only)
Odeh et al. (2021)	Ensemble Learning with CNNs	International Conference dataset	Achieved high stability and robustness by combining predictions from multiple CNN models.	97.00%	Medium (Depends on themodels)

Bilal et al. (2022)	U-Net and ResNet Combination	Symmetry 14(7) dataset	Achieved excellent segmentation and classification by combining U- Net for segmentation and ResNet for classification.	98.30%	Medium (Visualizations included)
Atwany et al. (2022)	Ensemble CNN Models	IEEE Access dataset	Achieved high classification accuracy with ensemble learning.	96.80%	Low (No attention mechanism)
Our finding	CNN with Attention and Ensemble Learning	Kaggle APTOS2019	Improved accuracy and interpretability by combining CNNs with attention mechanisms and ensemblelearning.	**98.50%**	**High (Attention + Grad-CAM)**

5. DISCUSSION

The results show that the accuracy and interpretability of DR detection were much improved by the combination of ensemble learning and attention processes. Using attention mechanisms and Grad-CAM visualizations, the suggested model maintained a high degree of interpretability while outperforming earlier approaches in terms of classification accuracy (98.5%), surpassing the findings of studies by Gargeya & Leng (2017) and Atwany et al. (2022).

The study's ensemble approach reduced the bias and overfitting hazards associated with individualCNN models. Comparing this to the individual CNNs utilized in research by Bilal et al. (2022) and Gargeya & Leng (2017), which did not use ensemble methods despite being quite accurate, makes this clear. Our results imply that ensemble models can offer more robust and dependable DR classification by integrating the advantages of several models, particularly in difficult situations with different image quality.

In conclusion, a promising approach to DR detection is shown via the combination of CNNs, attention mechanisms, and ensemble learning. This approach offers both increased accuracy and enhanced interpretability, all of which are critical for practical clinical applications. The outcomesshow how this strategy may be used for automated and early DR detection in healthcare systems.

6. FUTURE WORKS

Future research could explore improving the generalization capabilities of the proposed model by incorporating larger and more diverse datasets, including images from different populations and varying camera types. Additionally, further refinement of the attention mechanisms could enhancethe model's ability to focus on less obvious but critical features of the retina, which could be valuable for early-stage DR detection. In terms of implementation, future work could include optimizing the model for real-time processing on edge devices such as smartphones, which wouldmake DR screening more accessible in low-resource settings. Another potential direction is converting the current visualizations of model predictions (such as heatmaps) into black-and-white representations for easier integration into clinical workflows, ensuring clearer interpretation in grayscale environments like printed reports or low-contrast display systems. This adaptation would improve the accessibility and usability of DR detection systems in diverse clinical settings.

7. CONCLUSION

In this work, we applied convolutional neural networks (CNNs), attention mechanisms, and ensemble learning to develop a sophisticated deep learning-based method for the automated identification of diabetic retinopathy (DR). On the Kaggle APTOS 2019 Blindness Detection dataset, our approach achieved a classification accuracy of 98.5%, demonstrating better accuracy and interpretability when compared to existing models. We improved the model's capacity to concentrate on important retinal features by incorporating attention mechanisms, and the ensemble learning strategy contributed to the predictions' increased consistency and robustness. By providing accurate and effective automated screening, these developments establish our model asa dependable instrument for early DR detection, which could lessen the workload for medical practitioners. With the possibility of additional advancements through bigger datasets, improved attention mechanisms, and real-time processing optimizations, our method therefore supports the continuous efforts to develop DR detection systems for clinical deployment.

8. ACKNOWLEDGEMENTS

We extend our deepest gratitude to the organizers of the Seminar Wacana Pendidikan 2024 (SWAPEN 4.0) for the opportunity to present our research. Our sincere thanks go to the researchers and educators who generously shared their expertise and insights, providing invaluableguidance. We are also deeply appreciative of KPTM for their unwavering support, which was crucial to the success of this study. Finally, we express heartfelt gratitude to our families and friends, whose constant encouragement and support have been a driving force throughout this journey.

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Peraturan Syariah dan Praktik Rentenir: Kajian Perbandingan Aceh dan Malaysia

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ABSTRAK

Penelitian ini bertujuan untuk mengevaluasi keberkesanan peraturan syariah dalam mengatasi praktik rentenir (*Ah Long*) di Aceh dan Malaysia serta mengidentifikasi perihal yang dihadapi dalam implementasi dan pengawasan peraturan tersebut. Meskipun kedua wilayah memiliki kerangka peraturan syariah yang kuat, praktik rentenir tetap terjadi terutama dalam kalangan masyarakat yang memiliki keterbatasan akses kepada perkhidmatan kewangan formal. Kajian ini menggunakan pendekatan deskriptif analisis kualitatif dengan wawancara mendalam dari survei untuk memberikan gambaran yang komprehensif mengenai keberkesanan peraturan dan persepsi masyarakat terhadap praktik rentenir. Hasil penelitian menunjukkan bahawa di Aceh, meskipun Qanun Lembaga Kewangan Syariah (LKS) telah diterapkan secara rasmi, keberkesanannya dalam mengurangi praktik rentenir masih terbatas. Faktor-faktor seperti rendahnya literasi atau pendidikan kewangan syariah, kurangnya sosialisasi dan akses terbatas kepada perkhidmatan kewangan formal menjadi masalah utama dalam membanteras praktik ini. Di Malaysia, meskipun infrastruktur kewangan syariah lebih maju dan pengawasan lembaga kewangan formal lebih ketat, praktik rentenir masih terjadi di sektor tidak formal menunjukkan adanya ruang dalam sistem pengawasan dan ketidakmampuan untuk menjangkau seluruh lapisan masyarakat. Penelitian ini menyimpulkan bahawa keberkesanan peraturan syariah sangat bergantung pada kekuatan antara peraturan yang kuat, penegakkan hukum yang konsisten dan pendidikan masyarakat yang berterusan. Peningkatan literasi dan pendidikan kewangan syariah, penguatkuasaan koordinasi antara lembaga kewangan, penyediaan akses kepada perkhidmatan kewangan syariah lebih inklusif diperlukan untuk meningkatkan keberkesanan pengawasan dan meminimal praktik rentenir. Dengan pendekatan yang lebih holistik dan kolaboratif, diharapkan peraturan syariah dapat lebih efektif dalam menciptakan peraturan ekonomi yang adil dan berterusan sesuaidengan prinsip-prinsip Islam.

KATA KUNCI: Rentenir, Qanun LKS, Literasi Kewangan, Pengawasan Kewangan

1 PENDAHULUAN

Praktik rentenir telah menjadi isu serius meresahkan masyarakat, terutama dalam kalangan komuniti yang memiliki akses terbatas kepada perkhidmatan kewangan formal dan eksploitasi mereka terhadap masyarakat miskin (Rahayu, 2020). Rentenir, yang biasanya menawarkan pinjaman dengan bunga tinggi tanpa memerlukan jaminan dan syarat khusus, sering kali dianggap sebagai solusi cepat untuk keperluan mendesak (Sungkawaningrum et al., 2022) serta peperkhidmatan yang cepat dan tidak berbelit-belit dalam memberikan pinjaman modal bagi pedagang (Fauziah et al., 2022). Namun, pada kenyataannya, praktik inijusteru lebih serius terjadi masalah kewangan bagi peminjam dengan membebani mereka dalam lingkaran hutang yang sulit dilepaskan. Kesan negatif dari praktik rentenir ini tidak hanya dirasakan secara ekonomi tetapi juga menciptakan tekanan psikologi dan sosial yang mendalam pada peminjam, serta memicu ketidakstabilan ekonomi yang lebih luas.

Dalam perspektif ekonomi Islam, rentenir dianggap sebagai bentuk riba yang diharamkan kerana mengeksploitasi keperluan kewangan individu dengan mengambil keuntungan berlebihan dari ketidakmampuan mereka. Larangan terhadap riba ini bertujuan untuk melindungi keadilan dan keseimbangan dalam transaksi kewangan serta menjaga kesejahteraan sosial masyarakat. Di Aceh, peraturan syariah yang terdapat dalam Qanun Aceh Nomor 11 Tahun 2018 tentang Lembaga Kewangan Syariah (LKS) diharapkan mampu membanteras praktik-praktik riba, termasuk rentenir. Namun, meskipun peraturan ini telah diterapkan secara ketat, praktik rentenir masih berlangsung, sering kali dalam bentuk yang lebih tersembunyi dan sukar dibuktikan. (Noka et al., 2023).

Situasi yang serupa juga terjadi di Malaysia, di mana masyarakat yang terjebak dalam hutang rentenir sering kali menghadapi intimidasi dan ancaman fizikal. Praktik rentenir di Malaysia tidak hanya memberi kesan pada keadaan ekonomi individu, tetapi juga merosakkan hubungan sosial dan menyebabkan trauma psikologi yang mendalam. Kes-kes yang terungkap di media massa menunjukkan betapa seriusnya masalah ini dan bagaimana rentenir memanfaatkan kesulitan ekonomi masyarakat untuk mengeksploitasi mereka (The Star, 2019; Harian Metro, 2011).

Selain kesan ekonomi dan sosial yang merugikan, praktik rentenir juga menciptakan ketidakadilan dalam akses terhadap sumber daya kewangan. Keadaan ini menunjukkan adanya kesenjangan dalam inklusi kewangan yang seharusnya menjadi perhatian utama bagi para pembuat kebijakan dan lembaga kewangan syariah. Kurangnya akses ke lembaga kewangan formal yang sesuai syariah sering kali menjadi alasan utama masyarakat lebih memilih rentenir meskipun mereka menyedari risiko yang terlibat. Oleh kerana itu, penting untuk mengevaluasi keberkesanan program kewangan mikro syariah sebagai alternatif bagi masyarakat, khususnya di wilayah seperti Aceh dan Malaysia yang memiliki asas populasi Muslim yang kuat.

Di sudut lain, penerapan peraturan syariah di Aceh melalui Qanun LKS telah menjadi langkah progresif dalam mengintegrasikan prinsip-prinsip Islam ke dalam sistem kewangan formal. Namun, masalah terbesar adalah bagaimana peraturan ini dapat diterapkan secara efektif di peringkat akar umbi, di mana praktik rentenir masih serius terjadi. Salah satu kekangan utama adalah kurangnya pemahaman masyarakat mengenai konsep-konsep kewangan syariah dan manfaatnya dibandingkan dengan sistem konvensional. Pendidikan dan sosialisasi yang lebih serius diperlukan agar masyarakat dapat memahami risiko yang terkait dengan rentenir dan lebih memilih untuk menggunakan perkhidmatan kewangan yang sesuai dengan syariah. Selain itu, sokongan dari pelbagai pihak termasuk pemerintah, pemimpin tempatan, ulama, serta lembaga kewangan, sangat diperlukan untuk mengoptimalkan penerapan peraturan ini. Jika dibandingkan dengan Malaysia yang memiliki infrastruktur kewangan syariah yang lebih maju dibandingkan Aceh, masalah rentenir tetap menjadi ancaman bagi kestabilan ekonomi, terutama dalam kalangan masyarakat berpendapatan rendah. Pengalaman Malaysia dalam mengembangkan peraturan dan mekanisme pengawasan yang lebih ketat dapat menjadi panduan penting bagi Aceh. Dengan mempelajari kedua konteks ini, penelitian ini bertujuan untuk menawarkan rekomendasi atau cadangan yang lebih tepat sasaran dan berasaskan bukti bagi peningkatan keberkesanan peraturan syariah dalam membanteras praktik rentenir.

Penelitian ini bertujuan untuk melakukan kajian perbandingan mengenai keberkesanan peraturan syariah dalam membanteras praktik rentenir di Aceh dan Malaysia. Fokus utama dari penelitian ini adalah menganalisis implementasi Qanun LKS di Aceh dan peraturan syariah di Malaysia, serta mengidentifikasi masalah-masalah yang dihadapi dalam penerapan peraturan tersebut. Dengan menggunakan teori pilihan rasional sebagai kerangka analisis, penelitian ini juga akan mengeksplorasi faktor-faktor yang mendorong individu untuk tetap berurusan dengan rentenir meskipun menyedari risiko yang terlibat.
Pendekatan perbandingan ini penting untuk memahami sejauh mana peraturan syariah efektif dalam konteks yang berbeza serta bagaimana peraturan tersebut dapat diperbaiki untuk menciptakan peraturan ekonomi yang lebih adil dan sejahtera. Hasil dari penelitian ini diharapkan dapat memberikan keputusan signifikan bagi literatur tentang ekonomi Islam dan peraturan syariah serta menawarkan rekomendasi atau cadangan yang lebih inklusif dan berkelanjutan bagi penggubal undang-undang di kedua wilayah. Dengan demikian, penelitian ini tidak hanya berfungsi sebagai kritik terhadap praktik rentenir tetapi juga sebagai panduan praktis bagi upaya membanteras riba yang lebih efektif sesuai dengan prinsip-prinsip Islam.

2 TINJAUAN KEPUSTAKAAN

Dalam ekonomi Islam, rentenir dipandang sebagai bentuk riba, yang dilarang secara tegas dalam Al-Qurandan Hadis. Riba, yang bererti pengambilan keuntungan yang berlebihan dari keperluan mendesak seseorang, dianggap merosak keadilan dan keseimbangan dalam transaksi kewangan (Ilham, 2019). Larangan ini bertujuan untuk melindungi hak-hak ekonomi individu dan mencegah eksploitasi. Di Aceh, peraturan syariah yang terdapat dalam Qanun Aceh Nomor 11 Tahun 2018 tentang Lembaga Kewangan Syariah (LKS) merupakan cara untuk menghapuskan praktik riba, termasuk rentenir. Qanun ini mengatur bahawa semua transaksi kewangan di Aceh harus sesuai dengan prinsip-prinsip syariah. Meskipun peraturan ini merupakan langkah progresif, implementasinya di lapangan masih menghadapi masalah besar, terutama dalam hal sosialisasi dan penegakan hukum yang efektif (Noka et al., 2023).
Praktik rentenir telah menjadi fenomena yang menjadi punca dalam masyarakat, terutama dalam kalanganindividu yang tidak memiliki akses perkhidmatan kewangan formal. Rentenir, yang menawarkan pinjamandengan bunga tinggi tanpa jaminan atau syarat ketat, sering kali menjadi solusi cepat bagi mereka yang memerlukan dana segera. (Rahayu, 2020). Dalam banyak kes, rentenir memanfaatkan kesulitan ekonomi peminjam untuk menawarkan pinjaman yang pada awalnya dianggap istimewa. Namun, kenyataan yang terjadi adalah peminjam terjebak dalam lingkaran hutang yang sulit diatasi, di mana pembayaran bunga yang tinggi menyebabkan akumulasi hutang yang terus membesar (Sungkawaningrum et al., 2022). Kesandari praktik ini tidak hanya mempengaruhi stabiliti kewangan individu tetapi juga menciptakan ketidakstabilan sosial dan psikologi yang serius.

Meskipun peraturan syariah di Aceh telah diterapkan dengan baik, masalah dalam menghapus praktik rentenir masih menjadi perhatian utama. Salah satu masalah terbesar adalah kurangnya pemahaman masyarakat mengenai kewangan syariah dan manfaatnya dibandingkan dengan sistem konvensional. Pendidikan dan sosialisasi yang lebih serius diperlukan agar masyarakat dapat memahami risiko yang berkaitan dengan rentenir dan lebih memilih untuk menggunakan perkhidmatan kewangan yang sesuai dengan syariah (Noka et al., 2023). Selain itu, kurangnya akses terhadap lembaga kewangan formal, terutama di daerah luar bandar, kebanyakkan masyarakat terpaksa bergantung pada rentenir untuk memenuhi keperluan kewangan mereka. Dalam konteks ini, peranan aktif pemerintah daerah, ulama, dan lembaga kewangan sangat diperlukan untuk mendukung penerapan Qanun LKS secara efektif.
Malaysia memiliki infrastruktur kewangan syariah yang lebih maju dibandingkan Aceh, dengan peraturan yang lebih ketat dan pengawasan yang lebih baik. Namun, meskipun sistem kewangan syariah di Malaysia telah berkembang pesat, praktik rentenir masih

menjadi masalah yang membimbangkan, terutama dalam kalangan masyarakat berpendapatan rendah (The Star, 2019). Rentenir di Malaysia sering kali menggunakan taktik intimidasi dan ancaman fizikal untuk menagih pembayaran yang menciptakan kesan psikologi yang serius bagi peminjam. Kes-kes seperti ini menunjukkan bahawa peraturan yang kuat sekalipun tidak selalu mampu menghapuskan praktik rentenir jika tidak diimbangi dengan mekanisme menegakkan hukum yang efektif dan penyediaan alternatif pembiayaan yang inklusif. Noradhiah dan Shahirah meminta bantuan Persatuan Pengguna Islam Malaysia membantu masyarakat dalam meyelesaikan kes dengan rentenir (Voa Indonesia, 2021).

Penelitian ini akan membandingkan implementasi peraturan syariah di Aceh dan Malaysia untuk memahami faktor-faktor yang mempengaruhi keberkesanan kebijakan dalam membanteras praktik rentenir. Kajian ini akan melihat bagaimana Qanun LKS di Aceh dan peraturan syariah di Malaysia diterapkan, serta masalah yang dihadapi di kedua wilayah. Dengan menggunakan teori pilihan rasional sebagai kerangka analisis, penelitian ini akan mengeksplorasi alasan-alasan yang mendorong individu untuk tetap berurusan dengan rentenir meskipun menyedari risiko yang terlibat. Pendekatan ini diharapkan dapat memberikan wawasan yang lebih mendalam mengenai dinamika sosial dan ekonomi yang mempengaruhi tingkah laku peminjam, serta bagaimana peraturan syariah dapat diperbaiki untuk lebih efektif dalam membanteras praktik rentenir.

3 METODE PENELITIAN

Penelitian ini menggunakan pendekatan kualitatif untuk mengevaluasi keberkesanan peraturan syariah dalam membanteras praktik rentenir di Aceh dan Malaysia. Pendekatan ini dipilih untuk memperoleh pemahaman yang mendalam tentang implementasi peraturan syariah serta masalah yang dihadapi di kedua wilayah tersebut. Metode kualitatif akan digunakan untuk menggali pengalaman dan persepsi para pemangku kepentingan, termasuk regulator, akademik, ulama dan masyarakat yang terkesan.

Penelitian ini menggunakan bentuk kajian perbandingan yang menggabungkan pendekatan deskriptif dan eksploratif. Kajian perbandingan ini akan membandingkan keberkesanan Qanun Lembaga Kewangan Syariah (LKS) di Aceh dengan peraturan syariah di Malaysia. Analisis ini akan dilakukan melalui evaluasi implementasi kebijakan, tingkat kepatuhan lembaga kewangan, serta masalah yang dihadapi dalam penerapan peraturan tersebut di wilayah masing-masing. Penelitian ini juga akan mengeksplorasi persepsi masyarakat tentang peraturan syariah dan praktik rentenir untuk memahami faktor-faktor yang mendorongatau menghambat penerapan peraturan ini.

Penelitian ini menggunakan dua jenis data: data primer dan data sekunder. Data primer diperoleh melalui wawancara mendalam (in-depth interviews). Wawancara mendalam dilakukan dengan para ahli ekonomi Islam, ulama, dan pejabat lembaga kewangan syariah di Aceh dan Malaysia, serta dengan masyarakat yangterlibat secara langsung atau terkesan oleh praktik rentenir serta dokumen-dokumen peraturan, laporan tahunan lembaga kewangan syariah, artikel jurnal, serta penelitian sebelumnya yang relevan dengan topik ini.

Teknik pengumpulan data yang digunakan dalam penelitian ini meliputi wawancara semi-terstruktur, tinjauan soal selidik, dan kajian dokumen. Wawancara dilakukan untuk mencari informasi yang lebih mendalam tentang implementasi peraturan syariah dan masalah yang dihadapi. Tinjauan soal selidik digunakan untuk mendapatkan data kuantitatif mengenai persepsi masyarakat terhadap keberkesanan peraturan syariah. Kajian dokumen dilakukan untuk mengkaji peraturan, dasar, serta laporan-laporan rasmi yang terkait dengan praktik rentenir dan kewangan syariah di Aceh dan Malaysia. Populasi dalam penelitian ini meliputi masyarakat Aceh dan Malaysia yang memiliki pengalaman atau pengetahuan tentang praktik rentenir dan peraturan syariah. Sampel untuk wawancara mendalam dipilih secara *purposive sampling*, iaitu responden yang dianggap memiliki informasi relevan terkait topik penelitian, seperti praktik kewangan syariah, regulator, dan masyarakat terkesan.

Penelitian ini memiliki beberapa keterbatasan yang perlu diperhatikan. Pertama, data yang diperoleh dari wawancara mendalam mungkin bias kerana persepsi individu yang berbeza-beza. Kedua, meskipunpenelitian ini berusaha untuk memperoleh data yang komprehensif, ada kemungkinan bahawa beberapa aspek peraturan syariah atau praktik rentenir yang spesifik di wilayah tertentu belum meliputi sepenuhnya.

4 MAKNA RENTENIR DAN FALSAFAHNYA

Rentenir yang berasal dari kata “rente” bererti bunga atau riba, dan “nir” menjelaskan subjek atau orang. Menurut Kamus Dewan Bahasa dan Pustaka Malaysia (edisi keempat) rentenir bermaksud orang yang meminjamkan wang dengan mengenakan bunga yang tinggi. Dikenali juga sebagai *Ah Long*. Jadi, rentenir adalah orang yang mengambil riba atau tukang riba. Rentenir juga sering disebut dengan pemberi hutangatau lintah darat kerana sifatnya yang menghisap darah “wang” orang miskin yang mengambil pinjaman mereka dengan mengenakan sejumlah bunga yang sangat tinggi (Madjid et al., 2022). Rentenir bererti orang yang mencari nafkah dengan megenakan bunga wang. Rentenir adalah seseorang yang melakukan kegiatan peminjaman wang atau modal (Sungkawaningrum et al., 2024). Renten atau kegiatan renten merupakan suatu aktiviti dimana seseorang meminjamkan wang dengan bunga yang berlipat ganda yang memungkinkan bunga tersebut melebihi hutang asal jika baki terlambat (Siboro, 2015).

Menurut Kamus Besar Bahasa Indonesia (KBBI), rentenir adalah orang yang memberikan nafkah dan membungakan wang/tukar riba/pelepas wang/lintah darat (KBBI, 1990). Rentenir juga sering disebut sebagai tukang riba. Kadang kala, rentenir juga disebut sebagai pelepas wang, kerana mereka melepaskan atau memberikan wang mereka dalam bentuk pinjaman kepada orang yang memerlukan, biasanya orang miskin dengan mengenakan bunga tinggi. Pemberi wang (rentenir) adalah suatu jenis pekerjaan yang sesungguhnya tidak berbeza jauh dengan bank dan lembaga kewangan bukan bank yang bergerak dibidangperkhidmatan simpan dan pinjam wang. Di samping itu, rentenir juga sering disebut dengan lintah darat kerana sifatnya yang menghisap darah “wang” orang miskin yang mengambil pinjaman dengan mereka dengan mengenakan tingkat bunga yang sangat tinggi.

Di desa, rentenir sering juga disebut sebagai *tengkulak*, iaitu orang yang memberi pinjaman wang tidak rasmi atau rasmi dengan bunga tinggi (Parlina, 2017). Pinjaman ini tidak diberikan melalui badan rasmi, seperti bank, dan apabila tidak dibayar akan dimalukan atau dipukul. Para pemberi hutang biasanya beroperasi ketika musim menuai gagal, ketika para petani sangat memerlukan wang namun tidak dapat meminjam wang ke bank kerana tidak memiliki akaun bank atau harta sebagai jaminan (Samsono & Al Kurni, 2021). Sasaran rentenir lainnya adalah konsumen produk perbankan yang telah dimasukkan daftar senarai hitam (*black list*) kerana bermasalah dengan bank, seperti tidak mampu membayar hutang. Selain itu, sasaran para pemberi hutangjuga pengusaha-pengusaha mikro kecil sederhana yang kesulitan akses permodalan dengan bank serta rumah tangga yang memerlukan dana cepat. Pinjaman dari pemberi hutang tidak memerlukan jaminan rumah atau barang berharga lainnya (kebanyakan hanya memerlukan IC atau identiti lainnya) tetapi memiliki risiko tinggi.

Pemberi hutang juga biasanya memiliki orang berbadan tegap (preman) untuk melindunginya atau memaksa membayar hutang pemiutangnya. Cara lain pemberi hutanguntuk menagih hutangnya antara lain mencuri barang-barang pemiutang lalu dijual untuk mengganti wang yang dipinjam, jika pemiutang menunggak pembayaran dalam jangka waktu lama (biasanya hitungan bulan), atau menculik anggota keluarga pemiutang atau si pemiutang itu sendiri. Banyak orang yang meminjam wang kepada pemberi hutangdan tidak mampu membayar maka akan disita harta kekayaannya, dipukul atau dirosak harta bendanya bahkan dibunuh oleh orang-orang suruhan rentenir.

Rentenir dalam menjalankan usaha dilakukan dengan beberapa metode: memberikan nama usaha berupa koperasi simpan-pinjam (KSPS) dan Julo-julo tembak (mengelolanya secara peribadi yang menjadikannya sebagai sumber penghasilan utama). Rentenir yang berdalih

sebagai koperasi simpan-pinjam mereka melakukan praktik pinjam-sita. Pemberian nama KSP menjadi pekerjaan yang memudahkan bagi rentenir untuk melakukan operasi di luar prosedur, yang menyebabkan kerugian bagi pihak tertentu. Dengan kesan tersebut peminjaman modal ke rentenir menyebabkan meninggalkan keyakinannya (pindah agama), berpisah dengan keluarga (broken home) dan merosak peraturan ekonomi umat secara syariah, kerana dituntut oleh keadaan terpaksa sekalipun mengetahui bahawa bunga/interest yang yang tinggi bahkan boleh melebihi wang pokok pinjaman nampaknya tidak menepis keinginan masyarakat untuk tetap meminjam pada rentenir. Sebab, suatu keadaan terpaksa juga membuat mereka melupakan adanya larangan tentang haramnya meminjam wang pada lintah darat (rente) yang sangat tidak disukai oleh semua agama terlebihagama Islam kerana sifat keribaannya (Arif & Sutrisni, 2013).
Adapun perbandingan pengajuan Pinjaman pada Lembaga Kewangan Syariah dengan rentenir dapat dilihatpada jadual berikut. Jadual 1.

Jadual: 1 Perbezaan Pengajuan Pinjaman pada Lembaga Kewangan Syariah dengan Rentenir

No	Lembaga Kewangan Syariah	Rentenir
1	Pencairan disesuaikan dengan Kelengkapan berkas	Dana cepat alir atau turun
2	Jaminan sebagai syarat kelengkapan Administrasi	Tanpa agunan atau jaminan
3	Bagi hasil (nisbah) / margin sesuai perjanjian/kesepakatan dalam akad	Bunga 20% sampai 30% bahkan lebih tergantung Rentenir itu sendiri.
4	Dikelola oleh pihak pemerintah dan swasta di bawah naungan Bank Indonesia(BI) danOtoriti Jasa Kewangan (OJK)	Dikelola oleh perseorangan
5	Syarat Admistratif menjadi wajib dilengkapi	Administratif hampir tidak ada
6	Risiko kecil dan besar dapat diselesaikan secara Musyawarah	Risiko tinggi jika terjadi gagal bayar atau tidak mampu membayar hutang
7	Hukuman gagal bayar dapat di selesaikan sesuai peraturan dan Fatwa DSN-MUI	Hukuman jika gagal bayar pada umumnya berupa kekerasan fizikal mahupunpsikologi kepada pemiutang
8	Terdapat tempoh waktu pembayaran dan pelunasan secara fleksibel	Tidak ada tempoh waktu pembayaran/tempoh waktu boleh fleksibel
9	Pengawasan dilakukan oleh Otoritas Jasa Kewangan (OJK) dan Dewan Pengawas Syariah. (DPS)	Perseorangan/Peribadi
10	Hubungan nasabah dan bank, yakni penjual-pembeli, kemitraan, sewa, dan penyewa	Hubungan kemitraan yakni pemberi pinjaman dan penerima pinjaman
11	Penyaluran dana tidak boleh dilakukan pada bidang usaha yang bertentangan dengan nilai atau peraturan Islam.	Wang diberikan kepada semua pihak baik miskin, atau kaya.
12	Setiap keperluan nasabah dilakukan dengan akad	Tidak ada akad

Dari jadual di atas memberikan pemahaman Lembaga kewangan Syariah (LKS) dan rentenir memiliki perbezaan signifikan dalam hal proses pencairan dana, penggunaan agunan, sistem bunga, serta pengelolaandan pengawasan., rentenir menawarkan pencairan dana cepat tanpa jaminan (Fauziah et al., 2022), namun dengan bunga yang sangat tinggi pinjaman rentenir yang mudah dengan bunga 20-30% dan model pelunasan harian (Hanifuddin et al., 2024) serta risiko kekerasan jika terjadi gagal bayar. Di sisi lain, bank syariah menyesuaikan pencairan dana dengan kelengkapan berkas dan prinsip syariah, menggunakan sistem bagi hasil atau margin yang disepakati dalam akad, serta memberikan jaminan lebih sebagai formaliti administratif. Pengelolaan LKS berada di bawah pengawasan OJK, sementara rentenir beroperasi tanpa pengawasan rasmi, yang menyebabkan tingginya risiko eksploitasi terhadap nasabah serta menjadi serius dan buas (Nainggolan, 2016).

Dalam hal risiko dan hukuman, bank syariah menawarkan penyelesaian melalui musyawarah sesuai dengan prinsip-prinsip hukum Islam (Jamaluddin et al., 2024), berbeza dengan rentenir yang sering menggunakan kekerasan fizikal atau psikologi hingga perampasan barang berharga (Wirawan et al., 2023). Selain itu, LKS memberikan tempoh waktu pembayaran yang jelas, sementara rentenir bersifat fleksibel tetapi membebani peminjam lebih lanjut. LKS juga memastikan bahawa dana disalurkan hanya pada usaha yang sesuai dengan nilai-nilai Islam, sedangkan rentenir memberi pinjaman dengan bunga sesuka hati dan dalam jangka waktu singkat terkadang hampir tidak masuk akal dan di posisi yang lemah seorang peminjam dengan keadaannya yang mendesak (Sungkawaningrum et al., 2022) kerana tidak ada pilihan lain (Syarif, 2017). Hal ini menunjukkan bahawa meskipun prosedur di LKS lebih ketat dibandingkan rentenir, namun menawarkan keamanan, keadilan, dan kesejahteraan yang lebih baik bagi nasabah.

Penjelasan di atas menggambarkan bahawa falsafah rentenir adalah meraih keuntungan sebanyak- banyaknya dengan memanfaatkan kesempitan atau keadaan terdesak orang miskin yang memerlukan wang dan meminjamkan kepada mereka seolah - olah mereka hadir sebagai “teman dekat” atau bahkan “malaikat penyelamat” dengan mengenakan bunga yang sangat tinggi. Rentenir seolah-olah hadir untuk membantu demi kepentingan orang miskin, padahal mereka sebenarnya wujud untuk kepentingan dirinya sendiri meraih keuntungan maksimum dengan memanfaatkan kesempatan dalam kesempitan.

5 KESAN EKONOMI DAN SOSIAL DARI PRAKTIK RENTENIR

5.1 Beralihnya Keyakinan

Praktik rentenir yang masih terjadi meskipun telah diterapkan peraturan syariah yang ketat di Aceh menunjukkan adanya ruang dalam implementasi hukum yang seharusnya melindungi masyarakat dari perangkap riba (Perdana et al., 2022). Keadaan ini jika tidak segera diatasi kesannya lebih besar termasuk dalam hal keyakinan agama. Salah satu kesan yang sering kali terjadi adalah potensi pindah agama *murtad* yang terjadi di tengah tekanan ekonomi dan sosial disebabkan oleh keterlibatan dalam praktik riba. Bagi sebahagian masyarakat, tekanan ekonomi yang diakibatkan oleh perangkap rentenir dan ketidakmampuan untuk keluar dari lingkaran hutang dapat menimbulkan krisis spiritual. Masyarakat yang merasa tidak mendapatkan perlindungan atau solusi yang memadai dari lembaga kewangan syariah, atau merasa diabaikan oleh komunitinya, mungkin mulai meragukan nilai-nilai agama yang mereka anuti. Dalam situasi seperti ini, pencarian solusi spiritual dan ekonomi yang lebih cepat dan praktis dari agama lain boleh menjadi pilihan bagi individu yang terdesak.

Praktik rentenir, yang menawarkan pinjaman dengan bunga tinggi tanpa memerlukan jaminan, telah menjadi permasalahan yang signifikan di pelbagai daerah di Aceh, termasuk di Langsa. Meskipun Aceh merupakan daerah yang menerapkan Syariat Islam secara menyeluruh (Iskandar, 2018), kenyataan di lapangan menunjukkan bahawa rentenir masih beroperasi dan terus memerangkap masyarakat, terutama mereka yang berada dalam kesulitan ekonomi. Salah satu kesan yang kurang dibahas namun sangat penting adalah

bagaimana tekanan ekonomi yang diakibatkan oleh praktik rentenir ini dapat menggoyahkan keyakinan agama seseorang dalam beberapa kes, mendorong mereka untuk berpindah agama.
Salah satu kes yang terjadi di Langsa melibatkan seorang suri rumah tangga yang terpaksa meminjam wang dari rentenir untuk memenuhi keperluan keluarganya. Bunga yang tinggi membuat hutang tersebut semakin membesar, dan ketika dia tidak mampu lagi membayar, rentenir mulai mengancam dan memberikan tekanan fizikal serta psikologi (Ilham, 2019). Dalam keputusannya, ibu ini merasa bahawa agama Islam, yang selama ini diyakininya, tidak mampu memberikan solusi untuk masalahnya. Meskipun mendapatkan nasihat dari beberapa pihak untuk mencari bantuan dari lembaga kewangan syariah, ibu ini merasa bahawalembaga-lembaga tersebut tidak cukup responsif terhadap keadaannya.

Ketiadaan solusi yang jelas dan sokongan dari komuniti membuatnya merasa lebih k untuk menerima bantuan dari kelompok agama lain yang menawarkan solusi kewangan tanpa bunga. Dalam proses ini, ibu tersebut akhirnya memutuskan untuk berpindah agama, dengan harapan mendapatkan kehidupan yang lebih stabil dan terbebas dari tekanan ekonomi yang menghimpitnya. Kes ini menggarisbawahi bagaimana kegagalan dalam penegakan peraturan syariah dan kurangnya sokongan yang memadai dari lembaga kewangan syariah dapat berkontribusi pada krisis spiritual yang serius, hingga mendorong seseorang untuk meninggalkan agama Islam.

Kes yang melibatkan Fitri, seorang janda berusia 29 tahun dari Alue Beurawe, Kecamatan Langsa Baro, beserta dua anaknya Salsabila (5) dan Khairunnisa (3) telah terjadi sebagai contoh tragis bagaimana praktik rentenir dapat mempengaruhi keyakinan agama seseorang. Fitri, yang diduga pindah agama setelah bertemu dengan Edy Simon, seorang rentenir yang beroperasi di wilayah Kota Langsa, mencerminkan ancaman nyata yang dihadapi masyarakat lemah di daerah tersebut. Fitri, seperti banyak warga lainnya di Aceh, berada dalam keadaan ekonomi yang sulit setelah ditinggal suaminya. Dalam upaya untuk memenuhi keperluan hidupnya dan kedua anaknya, ia terpaksa meminjam wang dari Edy Simon, seorang rentenir yang dikenal luas di Langsa. Seperti yang sering terjadi dalam praktik rentenir, pinjaman yang diberikan disertai dengan bunga yang sangat tinggi, yang semakin membebani Fitri dari bulan ke bulan. Ketidakmampuan untuk membayar kembali pinjaman tersebut menyebabkan Fitri terjebak dalam lingkaran hutang yang terus membesar (Berita Merdeka, 2020).

Di bawah tekanan kewangan yang berat, Fitri merasa terasing dan tanpa sokongan yang memadai dari lingkungan sekitarnya, termasuk dari lembaga-lembaga kewangan syariah yang seharusnya memberikan solusi sesuai dengan prinsip Islam. Dalam situasi yang penuh tekanan ini, Edy Simon menawarkan lebih dari sekadar bantuan kewangan. Ia memberikan perhatian emosi dan spiritual, yang akhirnya membuat Fitri merasa terdorong untuk meninggalkan keyakinan Islamnya dan berpindah agama, sebuah keputusan yang juga melibatkan kedua anaknya yang masih sangat muda.

Kes ini tidak hanya menunjukkan kegagalan dalam melindungi masyarakat dari perangkap rentenir, tetapi juga menggambarkan kurangnya sokongan komuniti dan lembaga kewangan syariah dalam menangani situasi-situasi krisis seperti yang dialami oleh Fitri. Ketika sokongan kewangan yang sesuai dengan prinsip syariah tidak tersedia atau tidak mudah diakses masyarakat yang berada dalam situasi lemah dapat merasa tidak punya pilihan lain selain menerima bantuan dari sumber-sumber yang tidak sejalan dengan keyakinan mereka. Pindahnya Fitri dari agama Islam juga menunjukkan bahawa tekanan ekonomi yang tidak diimbangi dengan solusi kewangan syariah yang efektif dapat mengakibatkan krisis spiritual.

Dalam komuniti yang kuat seperti di Aceh, yang secara rasmi menerapkan Syariat Islam, kes seperti ini menjadi alarm bagi para pemangku kepentingan untuk mengevaluasi kembali keberkesanan peraturan syariah, termasuk Qanun Lembaga Kewangan Syariah (LKS) yang bertujuan untuk membanteras praktik riba dan rentenir.

Fenomena pindah agama dalam konteks ini sering kali terjadi ketika individu merasa bahawa agama yang dianutnya tidak lagi memberikan jawapan atas masalah yang dihadapi, atau ketika mereka merasa lebih diterima dan didukung oleh komuniti dari agama lain. Keadaan ini lebih serius jika lembaga kewangan syariah dan komuniti Islam tidak memberikan sokongan yang cukup dalam membantu individu keluar dari krisis ekonomi yang disebabkan oleh rentenir. Ketika masyarakat merasa bahawa peraturan syariah tidak berhasil melindungi mereka dari kesan riba, mereka mungkin mencari solusi di luar agama Islam yang pada akhirnya dapat terjadi pada keputusan untuk berpindah keyakinan.

Jadual 2 Perkiraan kadar Bunga Pinjaman Rentenir

No	Informan	Jumlah pinjaman	Jumlah besar bunga pinjaman	Peratus
1	Informan1	1.000.000	Terima tunai: 9 00.000 Pinjaman: 120.000 x 10 kali Bunga = (1.200.000- 950.000): 950.000	26,3%
2	Informan2	500.000	Terima tunai: 450.000 Pinjaman: 60.000 x 10 kali Bunga = (600.000 - 475.000):475.000	26,3%
3	Informan3	5.000.000	Terima tunai: 4.500.000 Pinjaman: 65.000 x 100 kali Bunga = (6.500.000 - 4.750.000): 4.750.000	31,5%
4	Informan4	1.000.000	Terima tunai: 900.000 Pinjaman : 100.000 x 12 kali Bunga = (1.200.000 - 950.000):950.000	26,3%
5	Informan5	200.000	Terima tunai: 180.000 Pinjaman: 10.000 x 24 kali Bunga = (240.000 - 190.000): 190.000	21% 4
6	Informan6	2.000.000	Terima tunai: 1.800.000 Pinjaman: 300.000 x 8 Bunga = (2.400.000 - 1.900.000): 1.900.000	26%

Jadual 2 di atas menyajikan perkiraan kadar bunga pinjaman rentenir berdasarkan informasi yang diperoleh dari enam informan. Kadar bunga pinjaman yang dikenakan oleh rentenir bervariasi tergantung pada jumlah pinjaman dan jangka waktu pinjaman. Dari data yang disajikan, terlihat bahawa peratus bunga yang dikenakan berkisar antara 21% hingga 31,5%, dengan rata-rata sekitar 26%. Tingginya bunga yang dikenakan menunjukkan bagaimana praktik rentenir ini mengeksploitasi keperluanmendesak masyarakat, yang sering kali tidak memiliki akses ke perkhidmatan kewangan formal yang lebih terjangkau.

Sebagai contoh, Informan 1 yang meminjam sebesar Rp.1.000.000 hanya menerima tunai

Rp.950.000 setelah dipotong wang administrasi dan harus membayar pinjaman sebesar Rp.120.000 selama 10 kali. Ini bererti total pembayaran yang harus dilakukan adalah Rp.1.200.000, dengan bunga yang dihitung sebesar 26,3% dari pokok pinjaman yang diterima. Pola yang serupa juga terlihat pada Informan 2 dan Informan 4, di mana bunga yang dikenakan juga mencapai 26,3%. Peratus bunga yang tinggi ini menunjukkan bahawa para peminjam harus mengembalikan jumlah yang jauh lebih besar daripada yang mereka terima, yang dapat menyebabkan mereka terjebak dalam lingkaran hutang yang sulit untuk dilepaskan.

Kes yang lebih ekstrem terlihat pada Informan 3, yang meminjam Rp.5.000.000 dan menerima tunai Rp.4.750.000. Dengan pinjaman sebesar Rp.65.000 yang harus dibayar 100 kali, total yang harus dikembalikan adalah Rp.6.500.000. Ini bererti kadar bunga yang dikenakan mencapai 31,5%. Bunga yang tinggi ini tidak hanya memberatkan peminjam tetapi juga dapat memicu tekanan ekonomi dan sosial yang serius, terutama bagi mereka yang tidak memiliki sumber pendapatan tetap. Keadaan ini sering kali mendorong peminjam untuk mengambil pinjaman baru hanya untuk membayar pinjaman yang lama, yang pada akhirnya memburuk lagi situasi kewangan mereka.

Dari semua informan, Informan 5 memiliki peratus bunga terendah, iaitu 21%. Meskipun demikian, bunga ini masih jauh lebih tinggi dibandingkan suku bunga pinjaman yang ditawarkan oleh lembaga kewangan formal. Informan ini meminjam Rp.200.000 dan menerima tunai Rp.180.000, tetapi harus membayar pinjaman sebesar Rp.10.000 sebanyak 24 kali, dengan total pembayaran Rp.240.000. Hal ini menunjukkan bahawa bahkan untuk pinjaman dalam jumlah kecil, rentenir tetap mengenakan bunga yang cukup tinggi, yang membebani peminjam dan sering kali menjadi pintu masuk menuju masalah kewangan yang lebih besar.

Keseluruhan data ini mengindikasi bahawa praktik rentenir tidak hanya bab kewangan, tetapi juga menunjukkan adanya masalah akses kewangan kepada masyarakat. Tingginya bunga yang dikenakan rentenir menunjukkan kepentingan untuk disediakan solusi pembiayaan yang lebih adil dan sesuai syariah, terutama di wilayah yang masyarakatnya lemah terhadap praktik ini. Pemerintah dan lembaga kewangan syariah perlu meningkatkan upaya untuk menyediakan akses kewangan yang inklusif dan pendidikan tentang pengurusan kewangan, agar masyarakat tidak terjebak dalam perangkap hutang rentenir yang bolehmerosakkan kestabilan ekonomi dan sosial mereka.

Selain itu, kurangnya pendidikan dan sosialisasi mengenai bahaya riba dan manfaat ekonomi syariah juga turut berkontribusi terhadap fenomena ini. Ketika masyarakat tidak memahami sepenuhnya prinsip-prinsip syariah dan bagaimana prinsip tersebut seharusnya melindungi mereka dari eksploitasi ekonomi, mereka menjadi lebih lemah terhadap pengaruh eksternal. Hal ini menunjukkan bahawa keberkesanan peraturan syariah bukan hanya soal penegakan hukum, tetapi juga sejauh mana peraturan tersebut mampu membangun kesedaran dan keyakinan masyarakat terhadap nilai-nilai Islam.

5.2 Kewangan dan Konflik Rumah Tangga

Tekanan kewangan yang terjadi dari hutang riba sering kali menjadi punca kepada masalah yang lebih besar dalam keluarga. Stres yang berterusan akibat kewajiban kewangan yang tidak dapat mempengaruhi tidak hanya hubungan antara pasangan tetapi juga interaksi keseluruhan dalam rumah tangga dengan rentenir akan menimbulkan kemudaratan duniawi mahupun ukhrawi (Khasanah, 2019). Dinamik ini cenderung burukkan lagi situasi ketika keluarga harus membuat keputusan kewangan yang sulit. Ketika pasangan suami isteri menghadapi tekanan ekonomi yang besar kerana harus membayar pinjaman hutang dengan bunga yang terus meningkat, mereka sering kali mengalami stres yang luar biasa. Tekanan ini boleh menimbulkan ketegangan dalam rumah tangga terutama jika pendapatan keluarga tidak cukup untuk menutupi keperluan sehari-hari dan membayar hutang sekaligus. Keadaan ini sering kali memicu pertengkaran yang serius dan berkepanjangan akhirnya dapat terjadi perceraian.

Keputusan untuk mengambil hutang dari rentenir biasanya diambil dalam situasi cemas, tanpa mempertimbangkan kesan jangka panjangnya. Ketika hutang tersebut mulai menjadi beban yang tidak tahan pasangan mungkin mulai saling menyalahkan. Pasangan mungkin merasa bahawa yang lain bertanggung jawab atas keputusan yang buruk atau tidak bijaksana ini. Ketegangan dan konflik ini dapat mengurangi rasa kepercayaan dan sokongan emosi di antara mereka yang merupakan asas penting dalam hubungan pernikahan. Ketika kepercayaan dan sokongan ini hilang, banyak pasangan yang mulai mempertimbangkan perceraian sebagai jalan keluar dari masalah yang nampaknya tidak dapat diatasi.

Tekanan terus-menerus untuk membayar hutang dan bunga riba yang terus meningkat dapat menyebabkankesihatan mental dan emosi yang serius. Suami atau isteri yang merasa terjebak dalam lingkaran hutang mungkin mengalami depresi, kecemasan atau stres yang berlebihan. Ketika salah satu atau kedua pasangan mengalami gangguan kesihatan mental akibat tekanan kewangan ini, kemampuan mereka untuk berkomunikasi secara efektif dan menjaga hubungan yang sihat akan sangat terganggu. Kesannya, hubungan perkahwinan boleh menjadi semakin renggang, perceraian menjadi pilihan yang dianggap paling realistik untuk menghindari penderitaan yang lebih lanjut.

Contoh nyatanya adalah Ibu Y (47 tahun), seorang janda, mencari nafkah dengan jualan kuih (gorengan) yang dititipkan di warung-warung terdekat. Ia terbeban hutang rentenir sehingga terpaksa menjual aset (rumah) untuk membayar hutangnya. Rumah bahagian depan dia jual, sementara dia tinggal satu bahagian rumah bahagian belakang (dapur) untuk sekadar boleh ia duduki agar tidak menyewa. Hutang yang dia pinjam meningkat bahkan sampai sekarang hutang belum lunas.

Perceraian yang disebabkan oleh masalah hutang riba tidak hanya mempengaruhi pasangan yang bercerai, tetapi juga anak-anak dan anggota keluarga lainnya. Anak-anak dari keluarga yang bercerai akibat masalah kewangan sering kali mengalami trauma, emosi dan mungkin mengalami kesulitan dalam menerima perpisahan ibu bapa mereka. Perceraian juga dapat memburukkan lagi situasi kewangan keluarga secara keseluruhan, kerana biaya hidup yang sebelumnya ditanggung bersama harus dibahagi sementara hutang yang ada mungkin masih harus diselesaikan.

Sebagai perbandingan, di Malaysia rentenir yang dikenal dengaan sebutan '*ah long*' juga selalu memanfaatkan kesulitan ekonomi yang dihadapi masyarakat untuk menawarkan pinjaman dengan bunga yang sangat tinggi, seringkali tanpa jaminan formal. Kes yang menimpa Noradhiah dan Shahirah, yang terjebak dalam hutang hingga hampir RM1000 setelah meminjam jadi bertambah RM4000, adalah gambaran nyata dari perangkap ini (The Star, 2021). Meskipun telah mengembalikan lebih dari dua kali ganda jumlah pinjaman awal, mereka terus dicari. Ketika menolak untuk membayar lebih, mereka dihadapkan pada ancaman fizikal, termasuk dirosakkan rumah mereka oleh ahli rentenir. Dalam kes lain, Chan, seorang wanita berusia 62 tahun juga mengalami intimidasi dari rentenir dengan menyiramkan cat merah ke rumahnya meskipun ia sudah bercerai dari suaminya yang berhutang. (The Star, 2019).

Kesan dari praktik rentenir ini tidak hanya dirasakan pada aspek kewangan, tetapi juga

mempengaruhi kesihatan mental dan emosi individu. Kes Shahirah, yang menderita stres berpanjangan dengan kurang tidur, kehilangan nafsu makan, ini adalah bukti nyata dari kesan psikologi yang ditimbulkan oleh praktik keji ini. Selama pandemik berlaku, Persatuan Pengguna Islam Malaysia melaporkan adanya peningkatan signifikan dalam jumlah kes rentenir yang dilaporkan dengan sejumlah 25 kes baru setiap hari, naik 30% dibandingkan sebelum pandemik (Persatuan Pengguna Islam Malaysia 2020). Ketua Persatuan Pengguna Islam Malaysia, Nadzim Johan, menggambarkan situasi ini sebagai "putus asa dan membuat frustrasi," menunjukkan betapa lemahnya masyarakat terhadap praktik eksploitasi ini, terutama di tengah krisis globalyang sedang berlangsung.
Selain itu, tekanan dihadapi oleh keluarga-keluarga yang terjebak dalam hutang rentenir sering kali memicu konflik rumah tangga yang berkepanjangan. Kes lain yang lebih tragis adalah seorang wanita bernama Fatimah kerana tekanan kewangan dari hutang suaminya, berniat menjual organ tubuhnya demi membayarhutang sejumlah RM30 ribu ringgit Malaysia (Harian Metro, 2011). Kejadian ini menunjukkan bagaimana krisis ekonomi dan ketidakmampuan untuk membayar hutang dapat memaksa seseorang untuk melakukan tindakan yang ekstrem dan membahayakan diri sendiri.
Rentetan kes ini menunjukkan rentenir menggunakan taktik intimidasi dan kekerasan untuk mengeksploitasi masyarakat yang terjebak dalam kesulitan ekonomi. Ini tidak hanya mengancam keselamatan individu tetapi juga menghancurkan kehidupan keluarga dan menyebabkan trauma jangka panjang. Rentenir, dengan memberikan pinjaman tanpa jaminan formal tetapi dengan bunga yang tinggi, merosak peraturan sosial dan kewangan masyarakat. Di tengah krisis ini sangat diperlukan intervensi yangefektif dari pemerintah dan lembaga kewangan syariah untuk melindungi masyarakat dari ancaman rentenir yang semakin brutal serta memastikan bahawa bantuan kewangan yang aman dan sesuai syariah tersedia bagi mereka yang memerlukan.

5.3 Kesan Psikologi dan Pertumbuhan jiwa anak

Praktik riba sebenarnya memakan harta dengan tingkah laku yang menyalahi peraturan syarak sangat membahayakan hidup manusia bahkan turut mempengaruhi pendidikan anak, baik secara langsung atau tidak langsung. Dalam hal ini anak sebagai amanah Allah SWT merupakan tanggung jawab ibu bapa untukmendidiknya. Sementara tujuan pendidikan Islam itu sendiri adalah untuk membentuk manusia yang *muttaqin* sedangkan riba hanya menjadikan menjadi egois dan materialistik. Kesan riba terhadap keturunan, Rasulullah SAW bersabda:

"*Tidak masuk surga daging yang tumbuh dari jenis harta haram, tetapi nerakalah yang lebih berhak atasnya"*. (HR Thabrani). Adapun proses kejadian manusia (keturunan) di permukaan bumi ini dapat dilihatdari firman Allah SWT yang maksudnya "*Dan sesungguhnya telah Kami ciptakan manusia dari sari pati (berasal) dari tanah, kemudian Kami jadikan sari pati itu air mani (yang disimpan) dalam tempat yang kokoh (rahim). Kemudian air mani itu Kami jadikan segumpal daging dan segumpal daging itu Kami jadikan tulang belulang. Tulang belulang itu Kami bungkus dengan daging. Kemudian Kami jadikan dia makhluk yang (berbentuk) lain. Maka Maha Suci Allah Pencipta yang paling baik"* (Q.S. Al Mu'minun : 12- l4).
Perintah Allah SWT itu justeru mempunyai pengertian bahawa dari hasil memakan makanan yang baik dan halal itu akan melahirkan keturunan yang baik pula. Sebaliknya dengan melarang memakan makanan yang dari harta yang haram itu kerana akan mempunyai pengaruh yang tidak baik terhadap keturunannya.

Dalam buku Psikologi Perkembangan, Faktor yang cukup berpengaruh pada masa perkembangan adalah gizi. Janin yang sedang berkembang bergantung pada gizi ibunya yang di peroleh melalui darah ibunya. Oleh sebab itu makanan yang diambil oleh ibu hamil harus mengandung perlu cukup protein, lemak, vitamin, dan karbohidrat untuk manjaga kesihatan bayi. Anak yang kekurangan gizi cenderung cacat. (Ajhuri, 2019). Peranan pengasuh dan ibu bapa memiliki peranan penting dalam merangsang potensi- potensi yang dimiliki oleh anak. Ibu bapa terutama ibu memilik peranan utama dalam memberikan stimulasi kepada anaknya (Husnah, 2015). Pembesaran anak dipengaruhi oleh beberapa faktor diantaranya faktor persekitaran, faktor pemakanan, dan faktor hormon. Gangguan pertumbuhan dan perkembangan anak dapat dipengaruhi oleh faktor persekitaran sebelum lahir seperti faktor sosial ekonomi, nutrisi, status kesihatan dan stimulasi dini yang tidak kuat. Pengambilan makanan yang kurang baik dapat mempengaruhi perkembangan janin mulai dari awal kehamilan dan disepanjang usia anak-anak (Uce, 2018).

Pertengkaran berulang antara ibu bapa mereka tentang masalah kewangan sering kali membuat anak-anak merasa tidak aman dan cemas. Keadaan ini menyebabkan stres teruk yang boleh berkesan negatif pada kesihatan mental dan fizikal mereka, seperti masalah tidur, penurunan prestasi akademik dan tingkah laku menarik diri dari interaksi sosial. Ketidakstabilan emosi ini tidak hanya mengganggu perkembangan emosi mereka tetapi juga dapat mempengaruhi kemampuan mereka untuk membangun dan mempertahankan hubungan baik di masa depan. Selain itu, anak-anak dari rumah tangga yang mengalami tekanan kewangan seringkali terbebani dengan perasaan bersalah atau rasa tanggung jawab yang tidak wajar atas masalah kewangan keluarga. Mereka mungkin merasa bahawa mereka harus berperanan dalam menyelesaikan masalah ini atau berpikir bahawa situasi kewangan adalah akibat dari kesalahan atau kekurangan mereka. Beban emosi ini boleh sangat berat dan sering kali membawa kesan jangka panjang pada harga diri dan kepercayaan diri mereka.

Dalam masyarakat yang sangat menghargai nilai-nilai syariah, anak-anak dari keluarga yang terlibat dalam praktik riba mungkin menghadapi stigma sosial. Rakan-rakan sebaya atau bahkan orang dewasa di lingkungan sosial mereka mungkin memandang rendah keluarga mereka kerana dianggap tidak patuh pada ajaran agama. Perasaan malu ini dapat menyebabkan pengasingan sosial dengan anak-anak menarik diri dari interaksi sosial kerana takut dihakimi atau dikritik oleh orang lain. Hal ini boleh menyebabkan anak- anak menjadi mangsa buli atau diskriminasi yang pada gilirannya dapat merosak kepercayaan diri dan kesejahteraan mental mereka. Anak-anak yang menyedari bahawa ibu bapa mereka terlibat dalam praktik riba menghadapi tekanan sosial dan moral akibat sumber pendapatan keluarga yang tidak sesuai dengan syariah mungkin mengalami stres. Tekanan ini dapat menyebabkan perkembangan emosi mereka, masalah seperti tekanan jiwa, masalah sosial bahkan gangguan tingkah laku. Kesulitan dalam mengelola emosi ini dapat memberi kesan negatif hubungan dengan ibu bapa mereka. Ini boleh memburukkan hubungan keluarga dan menyebabkan ketegangan di rumah, yang pada gilirannya mempengaruhi bagaimana merekaberinteraksi dengan rakan-rakan dan orang lain di luar rumah.

Anak-anak yang membesar dalam persekitaran di mana praktik riba dianggap normal mungkin membawa nilai-nilai ini ke dalam kehidupan dewasa mereka. Mereka boleh mengembangkan sikap permisif terhadap tingkah laku yang tidak beretika baik dalam konteks peribadi mahupun profesional. Ini tidak hanya mempengaruhi hubungan interpersonal mereka tetapi juga boleh membatasi peluang mereka untuk berjaya dalam kehidupan, terutama dalam masyarakat yang sangat menghargai integriti dan kepatuhan terhadap prinsip-prinsip moral dan agama.
Kesan ekonomi dan sosial dari praktik rentenir, termasuk kes pindah agama, konflik rumah tangga, dan kesan psikologi pada anak-anak sering kali diabaikan dalam diskusi awam. Praktik rentenir tidak hanya membebani masyarakat secara kewangan tetapi juga membawa

implikasi serius bagi kesejahteraan spiritualdan sosial mereka.

Jadual 3 Kesan Ekonomi dan Sosial Dari Praktik Rentenir

No.	Kesan	Deskripsi	Penyelesaian
1	**Beralihnya Keyakinan**	Ketidakmampuan untuk membayar hutang yang menumpuk dan tekanan ekonomi yang dihadapi dapat membuat individu merasakan krisis spiritual. Ketika individu merasa bahawa agama Islam tidak dapat memberikan solusi kewangan yang memadai, mereka mungkin mencari bantuan dari kelompok agama lain yang menawarkan bantuan kewangantanpa bunga, yang dalam beberapa kes dapat menyebabkan perpindahan agama. Misalnya, kes Fitri di Langsa, yang merasa terdesak oleh hutang rentenir dan kemudian memilih untuk berpindah agama setelah mendapat sokongan kewangan dan emosi dari Edy Simon, seorang rentenir yang beroperasi di wilayah tersebut.	1. **Pendidikan dan Konsultasi Kewangan Syariah:** Pemerintah Aceh dan Malaysia memberikan Pendidikan tentang pengurusan kewangan syariah, sertamenawarkan perkhidmatan konsultasi bagi individu yang merasa terjebak dalam hutang. 2. **Pendampingan Spiritual dan Emosi:** Pemerintah Aceh dan Malaysia membentuk tim khusus yang memberikan pendampingan spiritual dan emosi untuk individu dan keluarga yang mengalami krisis keyakinan akibat tekanan ekonomi. 3. **Penyediaan Solusi Pembiayaan Syariah yang Inklusif:** Pemerintah Aceh dan Malaysia bekerja sama dengan lembaga kewangan syariah untuk memastikan akses mudah ke pembiayaan syariah bagi masyarakat lemah.
2	**Kewangan dan Konflik Rumah Tangga**	hutang yang menumpuk dari praktik rentenir sering kali menyebabkan tekanan kewanganyang berat dalam rumah tangga. Pasangan suami-isteri yang tertekan oleh beban hutang mungkin mengalami konflik yang berkepanjangan, yang boleh berujung pada perceraian. Ketika satu pasangan merasa terjebak atau dikhianati keranakeputusan untuk berhhutang kepada rentenir, ini dapat menyebabkan hilangnya kepercayaan dan sokongan emosi, yang merupakan asas penting dalam pernikahan.	1. **Program Kaunseling Keluarga:** Pemerintah Aceh dan Malaysia menyediakan perkhidmatan kaunseling keluarga untuk membantu pasangan menghadapi tekanan kewangan akibat hutang rentenir, serta memperkuat komunikasi dan sokongan emosi di antara mereka. 2. **Pendidikan tentang Bahaya Riba dan Solusi Syariah:** Pemerintah Aceh dan Malaysia mengadakan seminar dan perbincangan untuk meningkatkan pemahaman masyarakat tentang bahaya riba dan memberikan alternatif solusi kewangan berasas syariah. 3. **Mediating Financial Restructuring:** Pemerintah Aceh dan Malaysia bekerja sama dengan lembaga kewangan syariah untuk merestrukturisasi hutang keluarga yang terjebak rentenir, dengan memfasilitasi pinjaman syariah tanpa bunga untuk membayar hutang konvensional.

3.	**Kesan Psikologi pada Anak-anak**	Anak-anak dari keluarga yang terjebak dalam hutang rentenir sering kali mengalami kesan psikologi yang signifikan. Ketegangan dalam rumah tangga, ketidakstabilan ekonomi, dan potensi perceraian dapat menyebabkan anak-anak merasa cemas, tidak aman, dan tertekan. Mereka mungkin menghadapi kesulitan dalam berinteraksi dengan rakan-rakansebaya dan mengalami penurunan prestasi akademik. Tekanan emosi ini boleh mengganggu perkembangan mental mereka dan menyebabkan masalah jangka panjang seperti kecemasan, depresi, atau bahkan gangguan tingkah laku.	1. **Program Sokongan Psikososial:** Pemerintah Aceh dan Malaysia menginisiasi program sokongan psikososial untuk anak-anak dari keluarga yang terjerat hutang rentenir, termasuk sesi kaunseling, terapi kelompok, dan program pengembangan diri. **3. Pendidikan Moral dan Kewangan Syariah:** Pemerintah Aceh dan Malaysia mengadakan program pendidikan bagi anak-anak untuk memperkuat pemahaman mereka tentang nilai-nilai moral Islam, bahaya riba, dan pentingnya kewangan syariah, sehingga mereka tidak terpengaruh oleh situasi kewangan keluarga.

Dari jadual di atas praktik rentenir memiliki kesan multi dimensi dari aspek sosial ekonomi keluarga sangat merugikan masyarakat (Ilham, 2019), tidak hanya pada individu yang terjebak dalam lingkaran hutang, tetapi juga pada komuniti dan keluarga yang lebih besar. Praktik rentenir tidak hanya membawa kesan negatif secara kewangan, tetapi juga mempengaruhi aspek sosial dan psikologi masyarakat, terutama bagi individu yang berada dalam keadaan sukar. Rentenir dapat menjerumuskan orang atau keluarga ke dalam perangkap kemiskinan. Sedangkan kemiskinan merupakan sesuatu yang berbahaya bagi manusia kerana dapat merosak akidah, akhlak, fikiran, dan keluarga (Hasan & Ilmi, 2022).

Salah satu kesan serius yang sering kali tidak terlihat adalah krisis spiritual yang dialami oleh individu yang merasa putus asa keranaterjebak dalam lingkaran hutang yang menumpuk. Ketika bantuan dari sistem kewangan formal tidak memadai atau tidak tersedia, beberapa individu, seperti kes Fitri di Langsa, memilih untuk berpindah keyakinan setelah menerima sokongan kewangan dan emosi dari rentenir. Perpindahan keyakinan ini menjadi bentuk pelarian dari tekanan ekonomi yang tidak tertahankan dan menunjukkan bagaimana kurangnya solusi kewangan yang inklusif dapat mendorong individu ke dalam situasi krisis spiritual. Pemerintah dan lembaga kewangan syariah perlu mengambil langkah proaktif dengan menyediakan Pendidikan tentang pengurusan kewangan syariah dan menawarkan solusi pembiayaan yang sesuai dengan prinsip-prinsip Islam untuk mencegah terjadinya perpindahan keyakinan yang disebabkan oleh masalah kewangan.

Selain krisis spiritual, praktik rentenir juga sering menyebabkan dapat mengganggu kerukunan rumah tangga (Zaenudin et al., 2022). Tekanan kewangan yang berat akibat bunga tinggi dan ketidakmampuan untuk membayar hutang dapat memicu ketegangan dan perselisihan yang berakhir kepada perpecahan keluarga. Ketika satu pihak merasa dikhianati atau dipaksa untuk berhutang tanpa persetujuan bersama, kepercayaan dan sokongan emosi dalam perkahwinan dapat hancur. Hal ini sering kali menyebabkan perceraian (Amala et al., 2024), pada gilirannya memburukkan lagi situasi ekonomi keluarga dan memberi kesan negatif pada kesejahteraan anak-anak. Untuk mengatasi masalah ini, pemerintah perlu mengembangkan program kaunseling keluarga fokus pada pengelolaan tekanan kewangan serta memperkukuh komunikasi dan sokongan emosi di antara pasangan. Pendidikan tentang bahaya riba dan alternatif kewangan syariah juga harus ditingkatkan agar masyarakat lebih memahami risiko yang terkait dengan praktik rentenir.

Kesan psikologi yang dihadapi anak-anak dari keluarga yang terjebak dalam hutang rentenir juga sangat membimbangkan. Ketegangan dalam rumah tangga dan ketidakstabilan ekonomi membuat mereka merasa cemas, tidak aman, dan sering kali tertekan. Tekanan emosi ini dapat mengganggu perkembangan mental anak-anak (Putri, 2023), menyebabkan penurunan prestasi akademik dan masalah dalam interaksi sosial. Untuk mengatasi kesan ini, program sokongan psikososial yang melibatkan kaunseling, terapi kelompok dan kegiatan pengembangan diri perlu dilaksanakan oleh pemerintah. Selain itu, pemberian biasiswa dan bantuan sosial bagi anak-anak dari keluarga yang lemah secara kewangan dapat membantu meringankan beban ekonomi keluarga dan memberikan kesempatan bagi anak-anak untuk tetap fokus pada pendidikan mereka tanpa terganggu oleh masalah kewangan keluarga. Dengan pendekatan yang komprehensif, diharapkan kesan negatif dari praktik rentenir terhadap anak-anak dapat dikurangkan dan mereka dapat membesar dalam persekitaran yang lebih stabil dan harmoni.

6 KEBERKESANAN PENGAWASAN SYARIAH TERHADAP PRAKTIK RENTENIR

Pengawasan syariah memainkan peranan yang sangat penting dalam memastikan bahawa semua kegiatan ekonomi dan kewangan di suatu wilayah sesuai dengan prinsip-prinsip Islam. Dalam konteks membanteras praktik rentenir, pengawasan syariah berfungsi untuk memastikan bahawa lembaga kewangan dan masyarakat perlu mematuhi peraturan yang telah ditetapkan dan tidak terjebak dalam praktik-praktik yang mengandungi riba. Keberkesanan pengawasan ini ditentukan oleh berapa baik peraturan dilasanakan, sejauh mana lembaga-lembaga terkait mampu mengesan dan bertindak terhadap pelanggaran, serta sejauh mana masyarakat memahami dan mematuhi peraturan syariah yang berlaku. Dalam mengatasi praktik rentenir dilakukan tiga indikator dan kategori sangat efektif, iaitu: ketepatan sasaran, persepsi anggota dan sosialisasi program (Srimulyani et al., 2022). Namun, meskipun peraturan syariah telah diterapkan secara ketat di beberapa wilayah seperti Aceh dan Malaysia, praktik rentenir masih sering kali muncul dalam bentuk lebih tersembunyi, menunjukkan bahawa pengawasan syariah masih menghadapi masalah yang signifikan dalam pelaksanaan dan penegakan hukum (Serambi Indonesia, 2020).

Salah satu faktor yang mempengaruhi keberkesanan pengawasan syariah adalah keterbatasan kapasiti autoriti pengawas dalam mengidentifikasi dan tindakan terhadap praktik rentenir yang sering kali beroperasi secara haram. Rentenir cenderung memanfaatkan ruang dalam sistem kewangan formal, seperti kurangnya akses masyarakat terhadap lembaga kewangan yang sesuai syariah dan tidak fahaman tentang alternatif pembiayaan syariah. Dalam banyak kes, rentenir beroperasi dengan cara yang sukar dikesan, seperti meminjamkan wang tanpa mencatat transaksi secara rasmi atau menggunakan taktik intimidasi untuk menekan peminjam (Sinar Pidie, 2021). Oleh kerana itu, diperlukan sistem pengawasan yang lebih komprehensif dan integrasi tidak hanya berfokus pada lembaga kewangan formal tetapi juga mencakupi komuniti-komuniti tempatan di mana praktik rentenir cenderung terjadi. Pendekatan ini harus melibatkan kerjasama aktif masyarakat, tokoh agama, dan organisasi masyarakat awam untuk meningkatkan kesedaran dan melaporkan aktiviti rentenir.

Selain itu, keberkesanan pengawasan syariah juga bergantung pada kesedaran dan pemahaman masyarakat terhadap hukum dan prinsip-prinsip syariah. Pendidikan yang kurang mengenai bahaya riba dan pentingnya mematuhi peraturan kewangan syariah sering kali menjadi masalah utama dalam upaya membanteras praktik rentenir. Meskipun lembaga kewangan syariah telah berusaha menyediakan alternatif pembiayaan yang lebih adil, banyak masyarakat yang masih lebih memilih rentenir kerana prosesnya yang lebih cepat dan tidak rumit. Untuk itu, strategi pengawasan harus diimbangi dengan program-program pendidikan yang komprehensif, tidak hanya menjelaskan risiko praktik rentenir tetapi juga memperkenalkan manfaat dan kemudahan dari pembiayaan syariah. Kempen pendidikan ini perlu disesuaikan dengan konteks sosial dan budaya setempat agar pesanan yang disampaikan dapat diterima dengan baik oleh masyarakat.

Di Malaysia, pengawasan syariah telah menunjukkan keberkesanan yang cukup baik, terutama dalam peraturan lembaga kewangan syariah dan perlindungan pengguna. Namun, masalah terbesar adalah dalam mengatasi praktik-praktik kewangan tidak rasmi dan sukar dikendalikan seperti pinjaman tidak berlesen. Pemerintah Malaysia telah melaksanakan pendekatan yang lebih kolaboratif dengan melibatkan pelbagai lembaga, termasuk Bank Negara Malaysia, Suruhanjaya Sekuriti Malaysia , lembaga-lembaga kewangan syariah, untuk menciptakan sistem pengawasan yang lebih padu. Pendekatan ini memungkinkan mengesan dengan lebih cepat dan respon yang lebih efektif terhadap pelanggaran, tetapi masih memerlukan kerjasama lebih lanjut untuk menjangkau masyarakat di lapisan bawah yang lemah terhadap perangkap rentenir.

Sebaliknya di Aceh, meskipun Qanun Lembaga Kewangan Syariah (LKS) telah dilaksanakan untuk mengatur seluruh kegiatan ekonomi berdasarkan syariah, keberkesanan pengawasannya masih menghadapi masalah. Salah satu masalah utama adalah kurangnya sumber daya dan kapasiti dari lembaga pengawas untuk menjangkau seluruh wilayah, terutama daerah perkampungan yang terpencil. Selain itu, ketidakfahaman masyarakat mengenai hukum syariah dan keterbatasan akses terhadap perkhidmatan kewangan formal juga menyukarkan lagi situasi. Untuk meningkatkan keberkesanan pengawasan, diperlukan peningkatan kapasiti lembaga pengawasan, kerjasama yang lebih erat dengan pemerintah daerah, serta penglibatan jaringan ulama dan tokoh masyarakat untuk memantau dan melaporkan praktik rentenir yang masih berlangsung.

Secara keseluruhan, keberkesanan pengawasan syariah terhadap praktik rentenir sangat bergantung kepada kekuatan antara peraturan yang kuat, penegakan hukum yang efektif, dan penyertaan aktif masyarakat. Pengawasan syariah yang efektif tidak hanya fokus kepada pengendalian dan tindakan, tetapi juga pada pencegahan melalui pendidikan dan pemberdayaan masyarakat. Dengan menciptakan sistem pengawasan yang lebih inklusif dan responsif, serta memastikan bahawa semua lapisan masyarakat memahami dan mendukung prinsip-prinsip syariah, diharapkan praktik rentenir dapat dikurangkan, sehingga tercipta peraturan ekonomi yang lebih adil dan sejahtera sesuai dengan nilai-nilai Islam.

7 MASALAH DALAM PELAKSANAAN PERATURAN PENGAWASAN PRAKTIKRENTENIR DI ACEH DAN MALAYSIA

Pelaksanaan Qanun di Aceh dan peraturan syariah di Malaysia dalam upaya membanteras praktik rentenir menghadapi pelbagai masalah yang kompleks dan multidimensi. Meskipun kedua wilayah ini memiliki landasan hukum syariah yang kuat, masalah yang muncul dalam penerapannya menunjukkan bahawa peraturan saja tidak cukup untuk menghapus praktik-praktik kewangan eksploitasi seperti rentenir. Salah satu masalah utama di Aceh adalah keterbatasan kapasiti lembaga pengawas untuk menjangkau seluruh wilayah, terutama di daerah desa yang sulit dijangkau. Rendahnya literasi kewangan syariah dan ketidakfahaman masyarakat tentang risiko riba dan praktik rentenir juga meyukarkan lagi situasi. Meskipun Qanun Lembaga Kewangan Syariah (LKS) telah diimplementasikan untuk mengatur seluruh kegiatan ekonomi sesuai dengan prinsip syariah, kurangnya pendidikan yang efektif membuatkan banyak masyarakat tetap bergantung pada rentenir sebagai solusi kewangan cepat.
Di Malaysia, meskipun infrastruktur kewangan syariah lebih maju, masalah dalam mengawasi praktik rentenir tetap signifikan. Salah satu masalah yang menonjol adalah keberadaan pasaran kewangan tidak formal yang kuat dan sulit diatur. Rentenir sering kali beroperasi di luar jangkauan autoriti kewangan formal, menggunakan Metode yang tidak tercatat dan sulit dikenalpasti. Masyarakat yang tidak memiliki akses perkhidmatan kewangan formal atau yang terjebak dalam situasi kewangan yang mendesak sering kali merasa tidak memiliki pilihan lain selain meminjam dari rentenir, meskipun mengetahui risiko yang terlibat. Selain itu, keberadaan jaringan rentenir yang kuat dan sering kali ada organisasi secara baik membuat mereka lebih sulit untuk dibenteras bahkan dengan peraturan yang ketat dan pengawasan yang lebih maju seperti di Malaysia.

Masalah lainnya adalah kurangnya kerjasama dan koordinasi antara berbagai lembaga yang terlibat dalam pengawasan kewangan syariah. Di Aceh, koordinasi antara Dewan Syariah, lembaga kewangan syariah, dan pemerintah daerah sering kali kurang optimal, yang mengakibatkan lemahnya penegakan hukum terhadap pelanggaran praktik riba dan rentenir. Di sisi lain, di Malaysia, meskipun koordinasi antara lembaga lebih terstruktur, masalah muncul dari perbezaan interpretasi dan penerapan hukum syariah di setiap negeri. Hal ini menciptakan ketidakseragaman dalam penegakan peraturan, sehingga membuka ruang bagi rentenir untuk memanfaatkan ketidakjelasan hukum tersebut. Oleh kerana itu, diperlukan pendekatanyang lebih integrasi dan harmonis antara pelbagai pihak yang terlibat, serta upaya untuk menyatukan pemahaman dan penerapan hukum syariah yang lebih konsisten di seluruh wilayah.

Selain faktor-faktor struktural, masalah budaya dan sosial juga memainkan peranan penting dalam sulitnya membanteras praktik rentenir. Di banyak komuniti, rentenir sering kali dipandang sebagai 'penolong' dalam situasi cemas, terutama ketika akses ke lembaga kewangan formal sangat terbatas. Stigma sosial terhadap hutang di lembaga formal atau rasa malu untuk meminta bantuan dari pihak rasmi juga mendorong masyarakat untuk mencari bantuan dari rentenir. Di Aceh, misalnya, kesulitan dalam mengakses perkhidmatan perbankan syariah dan ketidakpercayaan terhadap sistem kewangan formal masih menjadi masalah besar dalam mengalihkan masyarakat dari rentenir ke lembaga kewangan syariah. Pendidikan yang berkelanjutan dan program sosialisasi yang lebih serius diperlukan untuk mengubah persepsi ini serta untuk memperkenalkan solusi kewangan syariah yang lebih adil dan dapat diakses oleh semua lapisan masyarakat. Terakhir, masalah terbesar dalam membanteras praktik rentenir di kedua wilayah ini adalah ketidakseimbangan antara peraturan dan tingkat kesedaran serta pemahaman masyarakat. Tanpa pemahaman yang memadai tentang risiko riba dan pentingnya mematuhi prinsip-prinsip syariah, masyarakat akan terus mencari jalan pintas yang cepat namun berisiko tinggi. Oleh kerana itu, pemerintah Aceh dan Malaysia perlu memperkuat program literasi kewangan syariah, meningkatkan keterlibatan tokoh agama dan masyarakat dalam kempen anti-rentenir, serta memperluas akses perkhidmatan kewangan syariah yang inklusif dan mudah diakses. Dengan pendekatan yang lebih holistik dan partisipatif, diharapkan masalah-masalah ini dapat dikurangkan dan peraturan syariah dapat diterapkan dengan lebih efektif untuk melindungi masyarakat dari praktik kewangan yang eksploitasi.

8 KESIMPULAN

Penelitian ini memberikan gambaran yang komprehensif tentang keberkesanan peraturan syariah dalam membanteras praktik rentenir di Aceh dan Malaysia, serta mengidentifikasi pelbagai masalah yang dihadapi dalam penerapan dan pengawasan peraturan tersebut. Meskipun peraturan syariah di kedua wilayah telah diterapkan dengan baik, masalah seperti rendahnya literasi kewangan syariah, kurangnya akses terhadap perkhidmatan kewangan formal, dan koordinasi antara lembaga yang belum optimal, membuat praktik rentenir tetap semakin terjadi, terutama dalam kalangan masyarakat yang berada dalam kesulitan ekonomi. Hal ini menunjukkan bahawa peraturan saja tidak cukup untuk membanteras praktik rentenir tanpa adanya pengawasan yang efektif dan sokongan yang komprehensif dari pelbagai pihak berkuasa.

Implementasi Qanun Lembaga Kewangan Syariah (LKS) di Aceh telah menjadi langkah progresif dalam mengintegrasikan prinsip-prinsip syariah ke dalam sistem kewangan formal. Namun, keberkesanan penerapannya masih menghadapi masalah, terutama di daerah perkampungan yang memiliki akses terbatas terhadap perkhidmatan kewangan syariah. Kurangnya pemahaman masyarakat mengenai konsep-konsep kewangan syariah, serta persepsi negatif terhadap lembaga kewangan formal, membuat banyak masyarakat lebih memilih untuk meminjam dari rentenir, meskipun mereka menyedari risiko yang terlibat. Situasi ini diburukkan lagi oleh kurangnya sosialisasi dan pendidikan yang serius mengenai bahaya riba dan keuntungan dari sistem kewangan syariah, mengakibatkan masyarakat tidak memahami sepenuhnya perlindungan yang diberikan oleh peraturan syariah.

Di Malaysia, meskipun infrastruktur kewangan syariah lebih maju dan pengawasan terhadap lembaga kewangan formal lebih ketat, praktik rentenir masih menjadi masalah yang signifikan. Rentenir sering kali beroperasi secara tidak formal, memanfaatkan ruang dalam sistem kewangan formal dan ketidakmampuan lembaga kewangan untuk menjangkau seluruh lapisan masyarakat. Masalah ini menunjukkan bahawa pengawasan syariah harus diperkuat, tidak hanya pada lembaga kewangan formal, tetapi juga pada sektor tidak formal di mana praktik rentenir cenderung terjadi. Pendekatan yang lebih inklusif melibatkan kerjasama aktif masyarakat, tokoh agama, dan organisasi masyarakat awam diperlukan untukmeningkatkan kesedaran dan kepatuhan terhadap prinsip-prinsip syariah.

Secara keseluruhan, penelitian ini menunjukkan bahawa keberkesanan peraturan syariah terhadap praktik rentenir sangat bergantung kepada kekuatan antara peraturan yang ketat, penegakan hukum yang efektif, dan sokongan aktif masyarakat. Pendidikan yang berterusan dan program literasi kewangan syariah harus ditingkatkan untuk membangun pemahaman yang lebih baik tentang risiko riba dan manfaat sistem kewangan syariah. Dengan menciptakan sistem pengawasan yang lebih inklusif dan responsif, serta memastikan bahawa semua lapisan masyarakat memahami dan menyokong prinsip-prinsip syariah, diharapkan praktik rentenir dapat dikurangkan sehingga tercipta peraturan ekonomi yang lebih adil dan sejahtera sesuai dengan nilai-nilai Islam.

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Leadership in Transition: Analysing Transformational Leadership in Malaysia's Financial Services Through a Systematic Literature Review

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ABSTRACT

This systematic literature review investigates the impact of transformational leadership within the Malaysian financial services industry, this study selected articles using five leading databases, namely OpenAlex, Microsoft Academic, PubMed, PubMed Central and Core. The review identifies critical themes such as leadership development, organizational performance, employee engagement, and innovation. Results indicate that transformational leadership significantly boosts organizational performance by enhancing employee satisfaction, fostering a culture of continuous improvement, and driving innovation. The review also highlights the importance of tailored leadership development programs in cultivating transformational leadership qualities specific to the Malaysian context. However, significant gaps remain in understanding the long-term effects and contextual influences of transformational leadership within the industry. Future research should focus on longitudinal studies and the exploration of cultural and regulatory factors unique to Malaysia. Practical implications suggest that industry leaders should prioritize transformational leadership development and create organizational cultures that support innovation and employee engagement. This comprehensive synthesis of transformational leadership literature within Malaysia's financial services sector underscores its critical role in achieving sustainable organizational success.

Keywords: Transformational Leadership, Financial Services Industry, Leadership Development, Employee performance, Malaysia

INTRODUCTION

A workforce that is dedicated, honest and professional is key to the success of an organization in attaining optimal performance. The behavior, attitude, and integrity of leaders are important in determining how employees perform. Leadership's behavior has a strong bearing on ployee actions, performance and well-being within an organizational context. It therefore follows that leadership has a crucial function to play in strategizing, coordinating, directing and controlling operations for the achievement of organization objectives. The massive globalization rocess experienced by financial services sector in addition to advancing technology as well as manging regulatory frameworks have led to significant changes in the sector (Jr, 2022). This means that transformational leadership style which emphasizes visioning ability, inspiration and adaptability is now recognized as a vital aspect of navigating through these complexities (Susanto et al., 2023). Ever since, transformational leadership principles have become mandatory in Malaysia, a country that is well known for her dynamic and lively financial services sector. It examines various details for the transformational leadership as it pertains to the banking sector in Malaysia that can be helpful for us in determining its influence on organizational performance, staff engagement and innovation. The introduced by James MacGregor Burns in 1978 Transformational

Leadership one of its basic elements is the leaders' capacity to draw their followers into moving beyond their individual pursuits towards the prioritizing of organizational welfare (Wahjono et al., 2021). This style of leading has four key elements: idealized influence, inspirational motivation, intellectual stimulation and individualized consideration (Abbas et al., 2022). Leaders who adopt this approach are considered role models that can create an atmosphere where employees feel valued and motivated to give nothing but their best.

On the structure of the Malaysian economy, it has been observed that the financial services play an important role in the country's economy in terms of both contribution towards the Gross Domestic Product and providing employment in the country. For instance, transformational leadership in this dynamism such as technological changes or even regulatory amendments have widely been considered one of the most effective measures towards achieving competitiveness of organisations (Hendriks et al., 2020). Malaysian financial services leaders do not only steer their agencies in the periods of economic volatilities but also leverage on new technologies as well as changes in regulations. A critical analysis of previous studies proves that literature indeed confirms a positive correlation between transformational leadership and other aspects in organizations including employee job satisfaction, organizational commitment and innovation (Purba et al., 2023). These findings are important in Malaysia especially because of the demands for a motivated and innovative workforce for the country's sustained growth and competitiveness in the world market.

Transformational leadership in this context has a important impact on organizational performance in organizational. Research has demonstrated that leaders who excel in creating a vision, motivating others, and ensuring employee commitment towards organizational goals are particularly effective in this regard (Bassett-Jones & Lloyd, 2005). In the Malaysian financial services industry, executives who possess strong communication skills may effectively build a sense of purpose and direction for their staff by presenting a clear vision. This, in turn, leads to improved performance and outcomes for the organization. The link between the leader and employees mostly stems from the leader's capacity to motivate and inspire employees to enhance their performance and contribute to the organization. In the Malaysian financial industry, where competition is intense and predominantly centralized, it is extremely important to have all members of an organization working together to achieve these goals. The notion of transformational leadership can serve as the main driving force behind the establishment of a distinct innovation culture, enhancing employee satisfaction rates, and ensuring the long-term viability of financial organizations in Malaysia.

Due to the high level of competition among organizations operating in the financial sector in the country, it is crucial for leaders to foster the loyalty of employees to the organizational objectives and goals. In this sense, transformational leadership is quite crucial in the process of the culture of innovation, organization employee satisfaction, and eventually the continuous survival of financial companies in Malaysia. Human capital is a cornerstone for success since engaged and satisfied employees deliver results in organizations, notably in the financial services industry, being the focus of this research, as argued by (Husin et al., 2021). This sector is extremely particular in which transformational leaders have a significant and indispensable function to increase these variables in an atmosphere that supports its variety. These leaders have particularly been commended for exercising the act of employee monitoring or support which includes the leaders to pay close attention and provide proper care and meaningful growth to any of the followeras highlighted by (Avolio et al., 2009). Thus, this effective and high kind of customization not only works to develop strong the leader follower interactions but also produce enhanced levels ofemployees' contentment and lowering of their turnover intents. To elaborate further about Malaysia, there is a high rate of turnover within the field of financial services and by implementing the transformational leadership a company can address the issue of high turnover of its employees by providing the employees with an environment that is not only stimulating but it also is meaningful.

This paper presents the concept of transformational leadership which underlines the reviewof the alternatives strategies to develop the favorable organizational climate. Extensive literature reviews have shown that leaders on the organizational level can greatly contribute to the change of employees' behavior, productivity, and psychological health by developing and promoting people-focused and responsibly shared culture of trust and respect (Crowley, 2022). This method enhances performance in a general aspect, and at the same time enriches the success of the organization. It goes without saying that the extent of change brought by transformational leadership is extremely positive for organizational outcomes. Those managers and leaders who were able to paint a vivid picture of the organizational vision and attract the attention of employees towards organizational goals possess the capacity to take workers' performance and innovation to the next level. This is especially important for the financial services industry because in this field, companies are always in a competitive race and undergo great changes in their work.

The findings have revealed that the change in transformational leadership is positively affecting the organization outcomes with higher results. For example, in meta-analysis by (Lauritzen et al., 2022), the authors have concluded the existence of direct positive relationship between the transformational leadership and the organizational performance stressing the importance of the leader's role in mobilizing the subordinates for improving the organizational results. This finding poses more importance in the context of Malaysia and due to the importance of the financial sector relies on the leadership effectiveness. In Malaysia, an aggressive turn over for employee within the financial services sector makes it more essential for leaders to sustain using principles of transformational leadership. When leaders are sensitive to the needs and requisite development of their subordinates, then the leader-subordinate relations enhance, whichin return organizations see high levels of overall job satisfaction and commitment from the subordinate.

Evaluating similar importance for organizational success are indicators of the employee population, especially for businesses that depend on human capital. Since transformational skills are inherent in leaders, they have a major role in enhancing these features by establishing a favorable perception of being employable and addressing the needs of value sensitization at work. By giving subordinate individual attention also by fostering that is characterized structured of respect and trust, transformational leaders can make a great difference on workers' engagement and also lead to the reducing the intentions of turnover (Monje-Amor et al., 2020). Given that innovation is one of the most precious method for growth and sustainability of any ecosystem, it stands to reason that the proposition of innovation is the most crucial in the financial services industry. This type of leadership includes transformational leadership which is distinguished by its primary quality of inspiring followers to achieve their full intellectual potential, consequently, perfect in converting organizations into innovative settings. When people are forced to think and perform differently than one will observe significant improvements in operations, goods, and services.

Regarding the context of Malaysia, the financial services' industry is gradually adapting tothe changes that come with information technology and financial technology. The leaders leadingthe change management processes resulting from digitalization efforts which used by the transformational leaders due to their roles in spearheading change efforts within organizations while fostering and encouraging a culture of learning and innovation. According to literature, it is evident that there is a positive relationship between Transformational Leadership and innovation behavior within organizations which is crucial for organizations to adapt to clashes in technology and remain relevant in the market (Ekhsan & Setiawan, 2021). It is determined that transformational leadership plays a powerful tool for increasing the organizational performance and employees' engagement and innovativeness in the Malaysian financial services industry. As the industry continues to change, it will be the ability of leaders to bring out the best in their employees given the dynamics of today's business environment. When applying the principles oftransformational leadership, the leaders within the financial services industry in Malaysia should not only be inclined to improve their organizations but should also be empowering the nation's financial development.

From key importance for determining the performance of practically every organization isthe quality of the workers forming the given workforce (Ratnaningtyas et al., 2021). These workers are required to be committed, truthful and display a professional working attitude in their duties within the organization. It is a widely acknowledged fact that the behavior, attitude and the ethicalstandards of these personnel are mainly influenced by the leaders. The common leadership system that is embraced in a given environment has significant impacts on workers' actions, productivity and health in the workplace context (Listiani et al., 2020). Management leadership plays a major role in the thinking, planning, overseeing, and directing of operations in an organization to fulfil laid-down objectives and goals in the best way possible. Therefore, transformational leadership is not simply basic concept which leaders are grouped but a strategic strategy that can only be regarded as being highly vital when it comes to accomplishing long term change within the complex and dynamic business environments of today (Meng et al., 2022).

Thus, the impact of transformational leadership is multidimensional and directs an organization's performance in multi alternatives. Induction of purpose and direction by the leadersis considered among the key strategies by which transformational leaders boost the performance of their subordinates. In accordance with (Hasib et al., 2020) transformational leaders are exceptionally efficient at presenting the vision in a way that individuals see their self-interest in the organization's goals. This synchronization is important in promoting increased levels of employees' engagement as well as productivity (Ferozi & Chang, 2021). In this regard, there are always larger probabilities of the employees contributing the extra effort required to attain the organizational aims and objectives. The benefit transformational leaders provide is shown by their capacity to foster innovation and creativity within their teams. Encouraging their workers to think critically and come up with new products or process improvements through intellectual stimulation, these leaders play a vital role in developing a culture where different ideas and contributions may help drive progress (Astuty & Udin, 2020; Sudiarso, 2022). The forward movement to these businesses never ends since the industry or market may transform at any time,therefore organisations must remain flexible and ready to handle such developments proactively. Study (Naufal Fawwaz et al., 2023) has revealed that transformational leadership established organization tends to be more innovative adopting updated signals from the marketplace faster and thus leading to company's increased performance.

The results of the study demonstrated that transformational leadership has a major impacton the person, with its capacity to lead to a more engaged and productive team. This study confirmsthe relationship between transformational leadership and the impact of subordinates (Teoh et al., 2022). In the end, however, the most significant component with respect to organizational effectiveness may not be the subordinates themselves. Transformational leadership did predict satisfaction that in turn predicted successful group work. The influence of transformational leadership on results is that it drives individuals to invest the maximum amount of energy needed to stimulate innovation amongst team members in such circumstances (Bee Wen et al., 2023). Transformational Leaders might offer this work facility in their institutions. This study reveals there is lots of evidence that better method is measured to show the impact on leadership outcomesand development. Leadership quality gives the most reliable insights to change in offered organisational and social arrangement of leadership (Lai et al., 2020a). The results of the analyzing and identification of the transformational leadership is crucial which leads the continued learningin the future (Bastari et al., 2020). The scope of the study will be covered in the next subtopic, to ensure that the justification of the transformational leadership could be understood and acceptable.

LITERATURE REVIEW

Transformational leadership

Transformational leadership is a leadership style that prioritises inspiring and motivating followers to surpass their personal interests in order to benefit the business and achieve remarkableachievements. The leadership method is marked by four fundamental elements: individualized consideration, intellectual stimulation, inspirational motivation, and idealized influence (Reinhardt et al., 2022). Transformational leaders interact closely with their subordinates to identify key changes, build a vision to steer these changes through inspiration, and implement the changes in conjunction with dedicated group members (Rehardiningtyas & Almubaroq, 2021a). By encouraging workers to take initiative, think creatively, and take calculated risks in order to achieve organisational goals, this leadership style is quite successful in encouraging innovative behaviourin individuals (Sueb, 2023). The foundations of transformative leadership can be credited to JamesMcGregor Burns in 1978, with later contributions by Bernard M. Bass in 1990. Bernard M. Bass in 1990 mentioned that the motivational qualities of this leadership style is crucial to be motivatethe employee, which contribute to empower and excite organization, producing a favourable culture for innovation and growth (Saputra, 2022). This leadership style is also efficient in develop a favourable work culture, as it guarantees that the activities of individuals inside the company are in line with the organization's objectives, thereby enhancing internal motivation and dedication (Slahanti & Setyowati, 2021).

Transformational leadership is crucial for encouraging organizations to carry out their obligations effectively, hence assuring organizational success and the satisfaction of stakeholders (Rehardiningtyas & Almubaroq, 2021). Moreover, transformational leadership has been found to drastically increase organizational performance by enhancing work satisfaction, organizational learning, and knowledge management procedures (Kılıç & Uludağ, 2021). In the healthcare industry, transformational leaders have been proved to significantly influence the retention of nursing professionals and drive unit-level innovations that lead to better patient outcomes (Reinhardt et al., 2022). Additionally, a religion view on transformational leadership means that the inner transformation of leaders, inspired by their religion, can lead to better societal development (Kristanto & Salurante, 2021). However, it is vital to stress that while transformational leadership could promote work discipline and organizational commitment, it may not necessarily directly reinforce these components to improve employee performance (Chevalino & Ismail, 2022). According to (Kılıç & Uludağ, 2021) transformational leadership is an outstanding and sustainable style of leadership that empowers subordinates to express their views, assists them in adapting to their environment, and enhances the effectiveness of human resource management in a variety of organizational situations. Based on that, transformational leadership is necessary not only in the financial industry but also in all sectors of the full global industry. According to (Bassett-Jones & Lloyd, 2005), these dimensions include idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration.

1. **Idealized Influence:** Leaders who transform act as models to look up to, winning the trust and respect of those who follow them through good actions and being true to their word. This side shows the need for leaders who can spark respect and loyalty by living out the ideals and goals they set. (Saad Alessa, 2021)
2. **Inspirational Motivation**: Leaders with inspiring drive push and excite their team by giving their work deep meaning and making it challenging. They share a strong idea of what the future can be, building a deep sense of drive and dedication among team members. (Kant, 2023)
3. **Intellectual Stimulation**: Leaders who transform get their team to think out of the box. They push people to question the usual way, try new things, and look at issues from all sides. This kind of leadership makes sure everyone is always learning and changing. (Minai et al., 2020)
4. **Individualized Consideration**: This aspect means seeing and meeting the unique needs and dreams of each person. Transformational leaders act as guides, giving one-on-one support and chances for people to grow and reach their best. (Ferdinan & Lindawati, 2021)

Transformational leadership is a leadership style that has an important effect on job performance by encouraging and motivating people to work beyond their regular performance levels and linking their own seeks with those of the organization in general. This type of leadership includes leaders who expand and enrich the concerns of their employees, develop awareness and approval of the group's objectives and mission, and motivate employees to overcome their self- interest for the collective benefit of the group or organization (Kristanto & Salurante, 2021). A study that has proved that transformational leadership has a beneficial impact on staff performance. This is achieved by developing a strong sense of work motivation and organizational commitment, which afterwards leads in improved task performance and helpful behaviors (Chevalino & Ismail, 2022; Lai et al., 2020). For instance, in the Ministry of Finance in Indonesia, the implementation of transformational leadership has been linked to achieving optimal performance targets through enhanced work motivation and employee responsibility (Banin et al., 2020). This adoption could be practice continuously in Malaysia’s industry to ensure that the organization’s goals will achieve successfully.

Furthermore, transformational leadership has been found to significantly in influencing job satisfaction supported by previous study which justify the result, the job satisfaction mediates therelationship between leadership and job performance (Anom et al., 2023). This leadership style also The influence of employee participation in organization through this leadership style will ensure that the enhancing of the sustainable job performance might continuous, as evidenced by the study on Keshavarzi Bank of Iran employees (Nazari et al., 2022). In addition, transformational leaders influence the environment in terms of knowledge management which to ensure that the organizational performance is improved (Hadi & Marpaung, 2023). Transformational leadership has been demonstrated in government organizations to enhance the impact of digital platforms on job performance, emphasizing the significance of these platforms in helping employees adjust to changing environments and technology improvements (Prawati &Augustine, 2022). From various study shown that the mediator is the Corporate Social Responsibility which have the positive relationship between transformational leadership and job performance, (Noviaristanti & Hway Boon, 2023). However, several prior studies has showed thattransformational leadership does not directly increase work discipline or organizational commitment, it still plays a key role in boosting total employee performance through other mediating elements (Chevalino & Ismail, 2022). The expanding trend in transformational leadership research shows its growing importance and efficacy in boosting employee performance across many contexts and industries (Ernawati & Mahfudz, 2022). In conclusion, the influence of transformational leadership is an effective method in developing job performance which also havethe indirect factors such as mediating factors for example work motivation, job satisfaction, employee participation, and CSR, thereby fostering a productive and committed workforce (Anomet al., 2023; Banin et al., 2020; Chevalino & Ismail, 2022; Ernawati & Mahfudz, 2022; Hadi & Marpaung, 2023; Kristanto & Salurante, 2021; Lai et al., 2020b; Nazari et al., 2022; Noviaristanti& Hway Boon, 2023; Prawati & Augustine, 2022).

Work performance

Influencing transformational leadership, work performance plays a significant role. Effective leadership practices will contribute to the direct and indirect outcome. The characteristic of transformational leadership is who inspired and motivated employees to exceed their own self- interests to ensure that the organization will be able to achieve the goals. Transformational leadership has positive impacts towards employee performance which has been shown by previousstudies. To foster a supportive and motivating work environment this effective method has been applied. In addition, prior research has been conducted at Indonesia which stated that transformational leadership has a significant relationship with work motivation, which the outcome is stated that the employee performance contribute to the direct effect on performance even it was not significant without the mediation of motivation (Kurniawan et al., 2023). However,a study found that transformational leadership has a direct impact in improving employee performance and work motivation, with motivation play a role as mediating variable that contribute to enhancing performance (Banin et al., 2020).

Previous studies which conduct at Timor-Leste, positive influence between transformational leadership and employee performance, with work motivation as a mediator, the result of the studies shown the highlighting the importance of leaders in motivating employees toachieve better results (Pires et al.,2023). Moreover, a strong relationship between transformational leadership and work motivation that have been shown in previous research at the Bandung City Service Offices, which this explain that the employee performance is increasing due to the effective transformational leadership (Sfitri et al., 2023). A research study that have been conducted in agricultural sectors in Indonesia, stated that the role of transformational leadership in encouraging innovative work behavior, which contribute to the improvement of performance the significant of the variable have been stated through the research (Futri et al., 2023). In the previous research study have been analyzed the study about the impact of employee performance, through the transformational leadership and work motivation which these two variable is significantly and positively correlated each other (Apriani et al., 2023; Novitasari et al., 2022). However, in another previous study to support, which have been found that the influence of transformational leadership on performance is significant. The leadership style along with work ethic and employee competence effected to the work performance (Rina Herawati et al., 2023). Another evidence, a systematic review of 13 articles found that transformational leadership encourages the employee performance by increasing self- confident, contribution of commitment, and responsibility in achieving organizational goals (Buyung Aulia Safrizal, 2023).

Hence, the previous evidence stated that transformational leadership is a crucial factor in improving work performance in every industry, mainly through its ability to motivate to employee and inspire people, foster innovative behaviors and attitudes, and also create a supportive work environment that led to the individual goals to ensure that they meet the organizational objectives. At this stage, the research objectives and desired outcomes were established using a systematic literature review. The primary research question guiding this systematic review is: **"How does** transformational leadership impact work performance across various organizational settings?

To address this research question, the systematic review has the following specific objectives: 1.What specific dimensions of work performance are most influenced by transformational leadership?

2. What are the key mechanisms through which transformational leadership influences employee performance?
3. Which moderating and mediating variables might have an impact on the connection betweenjob performance and transformative leadership?
4. Are there sector-specific differences in the impact of transformational leadership on workperformance?

The implications arising from this comprehensive review led to theoretical and practical contribution. The systematic review will analyze and discuss methodological differences present among various studies, also analyze the measurement instruments that been used, sample demographics of the data, and the overall research frameworks utilized in the research study. In conclusion, this research studies shaping evidence-based strategies and contribute for future investigations. By analyze the findings and justifying the methodological, future researchers can offer valuable insights that contribute to the advancement of knowledge in the field.

METHODOLOGY

The review was done following PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses) guidelines that target precision in the systematic case or meta-analysis format. By accurately describing the minimum set of items necessary for a transparent and complete reporting, it is thought that this would improve quality in review reports which will ultimately assist readers to critically appraise systematic reviews or meta-analysis with findings applicable to any industry. This paper provides a systematic review of nature and roles, the PRISMA elements in research strategy and its practical application for advanced scholarly investigation. Originally formulated to tackle the deficiencies and discrepancies observed in the reporting of systematic reviews and meta-analyses, PRISMA was first introduced by (Page et al., 2021) with the aim of establishing astandardized set of guidelines to elevate the reporting quality of such studies.
This level of research will ensure that the reader able to provide the critical comment in term of the topic chosen (Hadi & Marpaung, 2023; Kant, 2023)(Zahari & Kaliannan, 2023). The adoption of PRISMA in research practices is very important due to the reporting standards and developing a culture of analysing within the academic researcher. In additional, the adoption of PRISMA method in streamlining the review process will ensure that the researcher enable to discuss amounts of information and extract pertinent data with precision. The standardized format prescribed by PRISMA will ensure that the consistency in reporting practices, hence this would enable comparisons across different studies and facilitating meta-analyses. Generally, the widespread adoption of PRISMA is important in promoting best practices in research reporting and maintaining the highest quality of standards in integrity and excellence towards academic research.

The PRISMA flow diagram discuss about the process, which is involved in the selection of research studies to ensure that the selection is followed with standard, there are four key stages:Identification, Screening, Eligibility, and Included.

1. **Identification**: The beginning stage is to identify relevant papers by conducting complete searches across databases and several other sources, following which the total count of detected records should be accurately stated for transparency and consistency purposes.
2. **Screening**: In this stage, the focus was to remove of duplicates and the subsequent screeningof the remaining records based on their titles and abstracts to ensure that the number of datarecords that have been excluded is correct as well as those included are for further evaluation.
3. **Eligibility**: To ensure that the researcher have the significant collected data, by excluded and included based on the chosen criteria, researcher need to conducted using analyze through assessment of full-text articles from the remaining data. After the removing the duplicate data, the remaining data will continue to extract using the specific assessment. The data selection for example to sorting out the data that meet the criteria of exclusion and included has been conducted through this stage. The specific reason will be stated if the data is excluded to ensure that transparency of selection process meet the requirement.
4. **Included**: In this phase, the data that have been successfully met the eligibility criteria and are deemed suitable for inclusion. It is crucial to disclose the total number of studies that have been included in both the qualitative and quantitative analysis,

particularly in the context of meta-analysis, to offer a comprehensive overview of the research findings.

Considering the increasing demand for good evidence across a range of fields, PRISMA adoption will continue to maintain its importance in the continuous development of research and practical applications. The systematic literature review process is precise in that it systematically examinesgathered articles to evaluate if they meet the established standards for inclusion. During the data selection, the search criteria are restricted to items published between 2020 and 2024, with a preference for full-text PDFs. Most of the reference materials cited in this research study come from open access publishers, including Microsoft Academic, OpenAlex, PubMed, PubMed Central, and Core. This provides solid evidence for analysing how transformational leadership can improve worker performance in organization environment. The encouraging of using of a variety of sources highlights the led to expanding the knowledge and encouraging a more thorough comprehension of the complex factors that affecting human resources management.

Search Strategy

In this stage of keyword research, all relevant synonyms, related terms, and variants of the main keywords for the study are thoroughly explored. This phase's main goal is to add more terms to the selected databases so that there is a greater chance of obtaining more relevant articles for furtherreview. As recommended by (Okoli, 2015), the research question serves as the primary guide for the selection and construction of these keywords as per Table 1 and many tools were used to makethis process easier, such as an online journal, keywords from previous studies, suggestions from open access journals, and advice from subject matter experts in the field.

Table 1: Keyword used in this study

Databases	Keywords Used
OpenAlex Microsoft Academic PubMed PubMed Central Core	• Transformational leadership • Work performance • Employee performance • Job satisfaction • Organizational commitment • Employee productivity • Psychological empowerment • Motivation • Engagement • Organizational citizenship behaviour • Moderators • Mediators

With a methodical approach, the researchers successfully increased the number of terms that werealready there, which led to the creation of an extensive search string. As shown in Table 1, this search string was painstakingly constructed on the five main databases: OpenAlex, Microsoft Academic, PubMed, PubMed Central, and Core. Boolean operators, phrase searching, truncation, wildcards, and field code functions were also employed. Since these databases include selected criteria of search options, broad coverage, details publication quality checks, and a wide reach across multiple fields including environmental management studies they are highly recommended for performing systematic literature reviews. The analysis identified 257 articles from the databases in total. During the first part of the systematic review, 156 publications were found using similar keywords in the initial manual searches. OpenAlex, Microsoft Academic, PubMed, PubMed Central, and Core as an extra database are included in accordance with the recommendations made by Haddaway et al., who emphasize its useful assistance when it comes to systematic reviews.

Table 2: Search string used in this study

Database	Search String
OpenAlex **Microsoft Academic** **PubMed**	ALL("transformational leadership" AND ("work performance" OR "employee performance" OR "job satisfaction" OR "organizational commitment" OR "employee productivity")
PubMed CentralCore	AND ("psychological empowerment" OR "motivation" OR "engagement" OR "organizational citizenship behavior" AND (moderators OR mediators

Screening

The second stage involved screening the articles. The goal of the first screening stage was to eliminate duplicate articles. In this process, leaving 101 articles to be evaluated using specific inclusion and exclusion criteria:

- Only journal research articles were included because they provide related article topics.
- Only articles published in English were taken into consideration; publications such as systematic reviews, meta-analyses, book series, books, book chapters, and conference proceedings were not included.
- In order to meet the goals of the review, the emphasis was on studies conducted in the fieldof education.

Based on these criteria, 156 articles were excluded (see Table 3), leaving 101 articles eligible for review.

Eligibility

The entire papers were evaluated in the third phase, which required confirming eligibility. In this stage, the application of method is manually examined the remaining articles to make sure they meet the predetermined standards. A close examination of the abstracts and titles was part of this process. As a result, 60 papers were rejected because they did not discuss transformational leadership or leadership techniques related to output. In the end, only 41 publications met the requirements and were selected for additional analysis (see Figure 1).

Table 3. The inclusion and exclusion criteria

Criteria	Inclusion	Exclusion
Nature of study	• The article addresses the similar topic • Articles that related with Transformational Leaderships, Job Satisfactions, Job Performances, Work Motivationand Job Attitude • Articles' findings focus on organization's performance, transformational leadership	• The article addresses another topic • Articles that not related with Transformational Leaderships, Job Satisfactions, Job Performances, Work Motivation and Job Attitude • Articles' findings did not focus on organization's performance, transformational leadership

Document Type	• Journal Article	• Not journal article papers for example books, thesis paper,conference paper and magazine
Language	• English	• Non English
Timeline	• >2020	• <2020

Data extraction and analysis

The data extraction and analysis in this stage conducted the selected data that have the similar review and analysis of the papers. To justify the research, question the focusing on main content of journal paper is important. The abstract will be reviewed in the data extraction process. In addition, the full papers were carefully examined to find relevant topics and sub-themes. In this stage, 41 articles were significantly included, based on their abstracts, results, and discussions. Extracted information that was relevant to the study questions was arranged in a table.

Data extraction conducted using a standardized criterion:

1. Study characteristics: Authors of the papers, countries of publication, year of publication,used of study design, sample size that used.
2. Population details: Demographics, industry or sector.
3. Intervention details: Description of transformational leadership practices.
4. Comparison details: Other leadership styles or no leadership intervention.
5. Outcome measures: Employee performance indicators, employee attitude measurement. The research study also shown the key findings and conclusions to ensure understandability and consistency of the research, two reviewers independently extracted data, resolving any discrepancies through discussion or consultation with a third reviewer (Page et al., 2021).

Descriptive Result

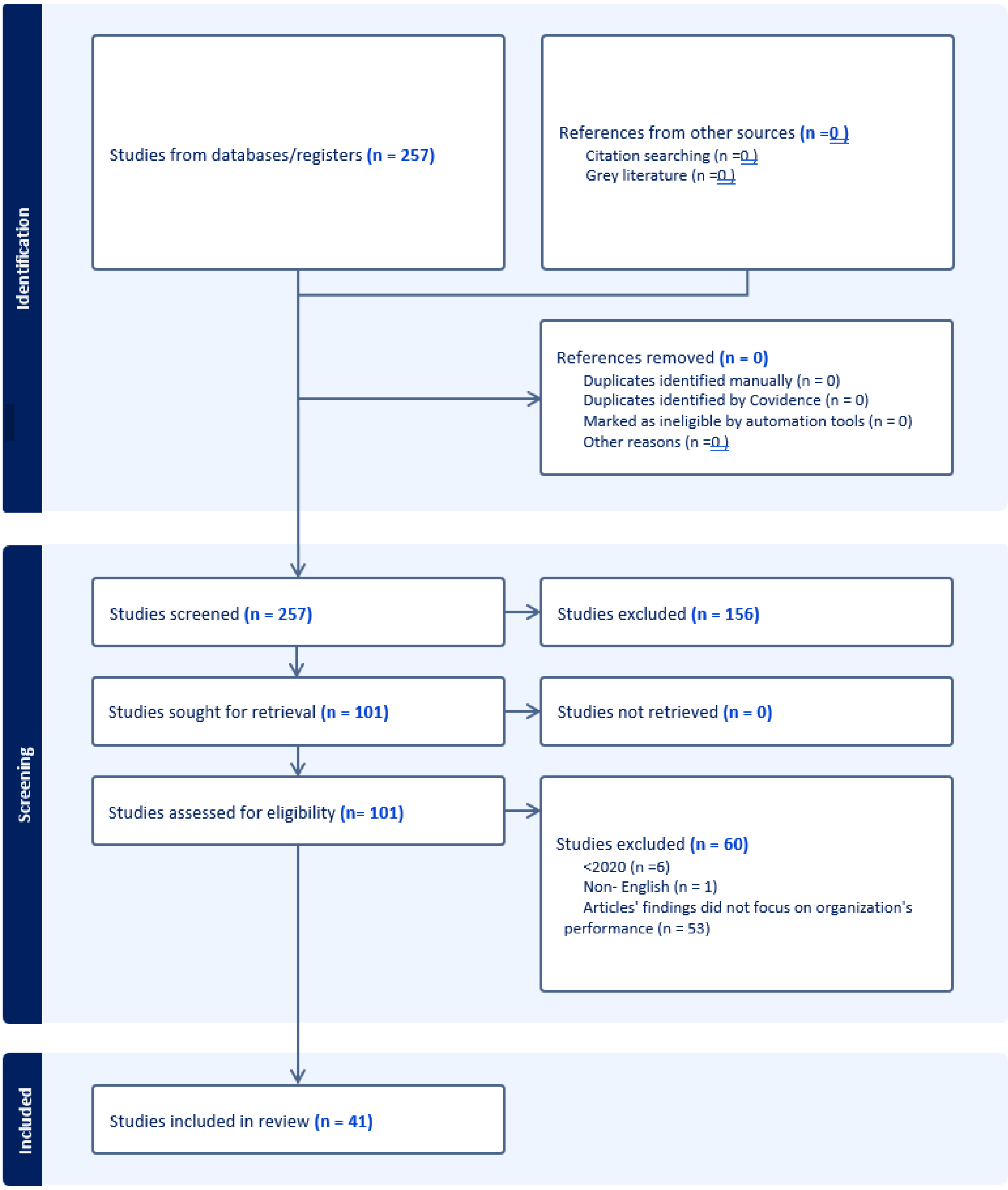

Figure 1. PRISMA

Table 4. Summary of the selected Studies

Title	Publication Year
The Impact of Transformational Leadership on Employee Performance: The Mediating Role of EmployeeEngagement in Selected Porcelain Manufacturing Companies in Sri Lanka.	2021
The Role of Organizational Cultures and Job Satisfaction in Mediating the Effects of TransformationalLeadership on Organizational Leadership Behaviours.	2020
Organizational Commitments And Job Performances Examining The Mediating And Moderating Roles OfOrganizational Citizenship Behaviour And Leadership Style.	2020
Linking Transformational Leadership with Job Satisfaction: The Mediating Roles of Trust and TeamCohesiveness.	2022
The Influence of Transformational Leadership and Transactional Leadership on Employee Performance withWork Motivation as An Intervening Variable.	2023
The Effect of Transformational Leadership Style, Motivation, And Organizational Culture on Organizational Commitments Mediated by Work Satisfaction at Muhammadiyah Malang University.	2020
The Mediating Role of Employees' Readiness to Change: Relationship of Transformational Leadership and Job Satisfaction.	2024
The Effect of Transformational Leadership Style, And Work Discipline on Employee Performance withOrganizational Commitment as Intervening Variable at PT. Laser Jaya Sakti.	2022
The Unintended Effort of Perceived Transformational Leadership Style on Workaholism: The Mediating Roleof Work Motivation.	2020
The Impacts of Transformational Leadership on Affective Organizational Commitment and Job Performances:The Mediating Roles of Employee Engagement.	2022
Transformational Leadership and Employee Performance: Work Motivation as A Mediator.	2023
Organizational Culture as A Mediator Motivation and Transformational Leadership on EmployeePerformance.	2021
The Effect of Transformational Leadership on Employee Performance Mediated by Work Motivation in CarRental Services Companies in Lampung Province.	2022
The Mediating Roles of Quality of Work Life and Organizational Commitment in The Link BetweenTransformational Leadership and Organizational Citizenship Behaviours	2024
Transformational Leadership and Work Engagement on Turnover Intention of Employee in The MNCs inVietnam: The Moderating Role of Job Satisfactions and Organizational Size.	2021

The Relationship Between Transformational Leadership Style, Work Motivation and Work Performance ofCivil Servants at The People's Committee Of Cam Lam District.	2023
How To the Impact on Transformational Leadership Style and Job Motivation on Organizational CitizenshipBehaviour (OCB) With Job Satisfaction as Mediating Variables At Outsourcing Company.	2022
The Effect of Transformational Leadership Style Towards Employees' Performance with Work Motivation asA Mediating Variable on Employees of Fif Ambon Branch During the Covid-19 Pandemic.	2021
How Transformational Leadership And Competency Supporting Employee Performance: Role Of AchievementMotivation As Mediation.	2024
Transformational Leadership as A Mediator Between Work-Family Conflict, Nurse-Reported Patient SafetyOutcomes, And Job Engagement.	2021
The Role of Motivation Mediation On The Effect of Transformational Leadership Style on EmployeePerformance	2021
The Influence of Transformational Leadership Style, Work Discipline, And Compensation on The Performanceof The State Civil Apparatus Through Motivation.	2023
The Effect of Transformational Leadership on Organizational Citizenship Behaviour Where Trust and JobSatisfaction Are as Mediation Variables.	2021
Impact Of Transformational Leadership on Employee Performance with The Mediation Impact of EmployeeEngagement.	2022
Transformational Leadership, Employee Engagement, Job Satisfaction And Psychological Well- Being AmongHotel Employees After The Height of The Covid-19 Pandemic: A Serial Mediation Model.	2023
Is It Worth Being Attached to The Leader? Transformational Leadership and Various Types of Performance:The Mediating Role of Leader as Attachment Figure.	2022
The Mediating Effect of Work Motivation on The Relationship Between Transformational Leadership andEmployee Performance.	2021
How Does Transformational Leadership, Work Motivation on Organizational Citizenship Behaviour (OCB)And Job Satisfaction as Mediating Variables in SME's.	2023
The Influence of Corporate Social Responsibility and Transformational Leadership Style on EmployeeEngagement with Job Satisfaction as A Mediation Variable.	2021
Factor Influencing Student Performance: Organizational Culture, Transformational Leadership, And StudentEngagement.	2024
Influence Employee Engagement on Organizational Trust Through Psychological Well-Being andTransformational Leadership.	2021
The Nexus of Transformational Leadership, Compensation and Knowledge Management Towards Employee	2021

Performance: Mediation Role Of Work Motivation.	
The Influence of Transformational Leadership and Work Environment on Employee Performance MediatedBy Work Motivation In Hospitals.	2022
The Role of Work Motivation as a Mediator in the Influence of Transformational Leadership and WorkDiscipline on Employee Performance in the Culinary Industry in Kuta, Bali.	2024
Employee performance under transformational leadership and organizational citizenship behaviour: Amediated model.	2022
Does Employee Empowerment as a Mediating Variable the Linking of Transformational Leadership onEmployee Performance?	2023
Investigating the Effect of Cultural Diversity Management and Employee Engagement on Work Performances: Mediating Role of Cross-Cultural Leadership.	2023
Exploring the Link Between Transformational Leadership and Employee Job Satisfaction and The Mediation Effect of Employee Work Motivation among Higher Education Teachers.	2024
The Influence of Transformational Leadership and Self Efficacy on Employee Performance Through Employee Engagement.	2023
The Importance of Organizational Culture as well as Transformational Leadership towards the Employee Performance at PT. KHMI via Motivation as a Mediation Variable.	2022
Transformational leadership and organizational citizenship behaviour: new mediating roles for trustworthiness and trust in team leaders.	2023

As highlighted in Figure 2, the bar chart shown the pattern of the publication overs the years and across different journals. This study analyses the trends in the publication years from 2020 to 2024 and the frequency of publications across various journals.

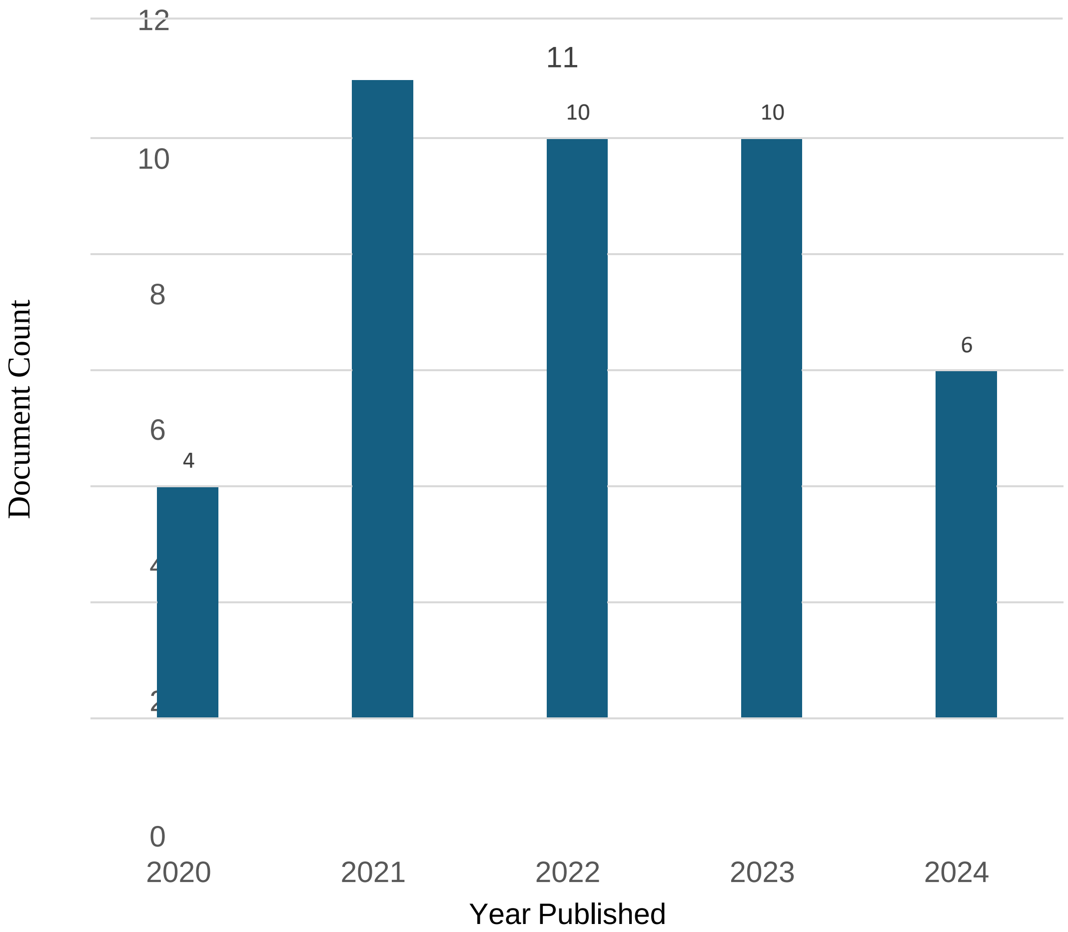

Figure 2. Year of publication

Based on Figure 2, shown a bar chart which represent the count of documents published across different years from 2020 until 2024, this data will be explain the pattern of the contributionin publication that have been collected. The categorized of the data based on the publication yearsand number of documents published according to years. The graph clearly shows that between 2020 and 2021, there was a considerable increase in the quantity of documents published. There were only four documents in 2020, which is a comparatively low number. On the other hand, therewas a significant increase in 2021, with 11 documents. During 2021, the increasing of publishing of paper, due to the effective productivity of publication. Followed by 2022, a slight decreasing number of document with 10 document count. While this represents a decreasing from the previousyear's peak, it is still significantly higher than the count in 2020, indicating sustained high productivity or ongoing trends requiring documentation.

During 2022 and 2023, the factor that contribute to maintaining the publication of paper is the stability in producing which cause the number of documents in 2022 and 2023 maintain in numbers. The Figure 2, shown that in 2023, the number of published documents is 10 indicated that stabilization in the publication. This stability could imply that the factors driving the high publication rates in 2021 and 2022 were still relevant. However, in 2024, there is a decline in the number of published documents, with the count dropping to 6. This decrease might indicate a shiftin focus, a resolution of the issues or trends that previously drove higher publication rates, or otherexternal factors influencing document production. The decreasing in the publication number due to slow in publication of research paper. However, during 2024, publication is decline from 10 to 6. The bar chart shown that the changes in the pattern of movement changed over the years, peaking in 2021 and then gradually declining until 2024.

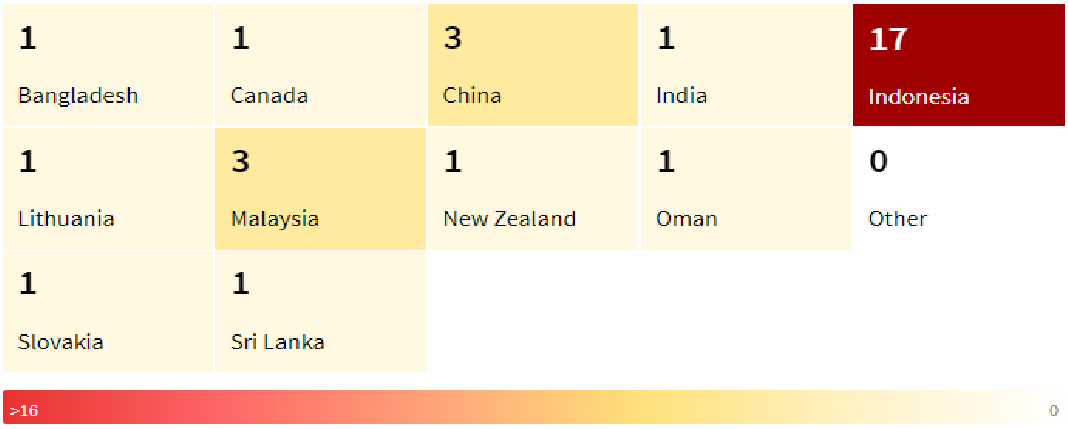

Figure 3. Heat Map Country Area Covered

Figure 3 explains the heatmap illustration which shows the distribution of document publications across various countries according to the data collected. The color intensity refers tothe volume of publication and each cell in the heatmap represents a country and the number of documents published. The indicator at the bottom has the darker color referring to the higher countof documents, with the deepest red indicating the highest publication count. In this heatmap, discussed that Indonesia has the highest number of documents, which is 17, also Indonesia is much higher than other country that involved. The indicator of deep red coloration which stated that Indonesia contributes the higher of publication activity.

Other nations like Malaysia and China provide three percent. Although it is still far less than that of Indonesia, their representation in a moderate color indicates a substantially stronger publication activity when compared to the other countries. Although on a smaller scale than in Indonesia, these figures might represent continuing research projects or partnerships inside these nations. A small number of countries have one publication count, including Lithuania, India, New Zealand, Canada, Oman, Bangladesh and Slovakia. These nations' paler the coloring suggests thatthey have contributed very little to the total amount of texts. This may imply a decline in the amount of research being done, a lowering of the documentation standards, or the fact that other aims are more essential in these areas than creating records.

In particular, the "Other" category, which could cover a variety of countries not named individually, shows a document count of 0. This absence means that either no publications were created in these nations, or the document count was small and thus combined into a non- contributing category. The heatmap basically provides insight into the geographical distribution ofthe production of documents. In this research study, Indonesia is the leading country that underlying higher publication activity. In general, the potential challenges able to influence the publication in certain country if the effective method did not apply. Indonesia in this research studyshows the higher focus on publication activity rather than other country. Thus, the heatmap explains the pattern in the whole country that have been collected, the future research could be able to wider the size of the collection in the future to analyze the wider data and discuss the continuous element.

Figure 4 shows the data on the distribution of top cited scholarly works overtime. The data collected between 2020 until 2024. The bar chart shows that the most references in total 81 during 2022. The widespread of the research paper all over the years, which influences the academic environment. The increased number of citations may suggest the presence of pioneering studies orparticularly influential research themes during that year. Such a surge in citations could be ascribed to a variety of factors, including heightened research funding, noteworthy discoveries, or global occurrences prompting increased academic engagement. The year 2021 is accompanied by 45 citations, a substantial quantity albeit notably less than that of 2022. This indicates that while 2021witnessed a significant amount of research output, the publications were not as widely referenced as those in 2022. A significant number of citations in 2021 suggests a consistent level of academicinvolvement and the enduring impact of research trends that may have originated in previous years.

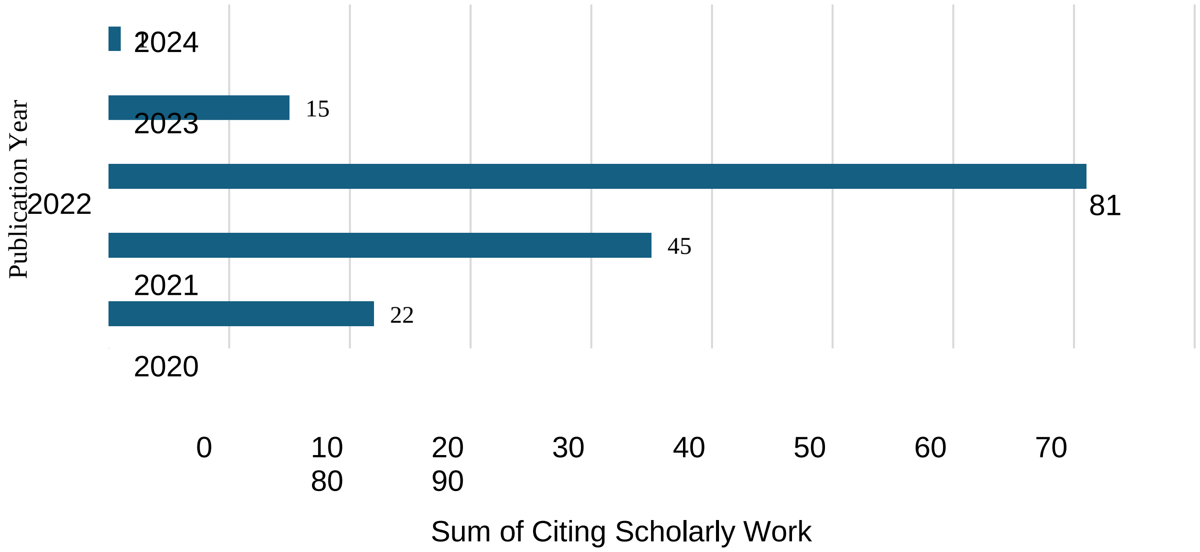

Figure 4. Top Cited Scholarly Works Overtime

The bar chart shows that in 2020, the number of citations is 22 which pointing to a moderate level of scholarly interest. From this figure could be explained that various factors that influence the citation, and the comparison could be done to justify that data. Due to some factors of difficulties that may not be avoided, the contribution of paper could be affected. Some of the research studies need to take time to be acknowledged, assessed, and cited by another scholar. The justification, analyzing the publication research paper, could be take time and focus on details, to ensure that the quality of paper could be go through. In 2020, global fighting with Covid-19, align with the difficulties to adapt the new norma. Many industries, including academic research, have limitations in producing research quality papers. In the meantime, it affects the quantity of publication during that year. Followed by 2023, the amount is 15, which significantly drops in citation. This reducing amount led to the slow rate of publication in 2023. To ensure that the increasing of movement pattern of producing research paper the future researcher could find a new effective alternative method, strategies to ensure could be able to research other scope of research. Hence, in 2024, the declining pattern of publication drops to 1. The new discovery of research paper needs to be continuously produced to enhance the quality of research academic in every scope of research. However, in new publication of released research typically faces a delay before garnering substantial citation numbers, as it requires time for scholars to interact with and cite new discoveries. In conclusion, the bar chart that is shown in Figure 4 discusses the pattern of the cited scholarly which all the cited is very crucial in the publication. The fluctuations in citation numbers among different years highlight the evolving nature of academic involvement and the time- sensitive process of scholarly acknowledgment. The understanding of the patterns, movement and justification of each data affect the research paper and the research of the paper.

JORNAL	2020	2021	2022	2023	2024	TOTAL
Academic Journal Of Interdisciplinary Studies		1				1
Journal Of Management & Business				1		1
Asean International Journal Of Business					1	1
Journal Of Multidisciplinary Studies			1	1		2
Current Psychology			1	1		2
Deli Journal				1	1	2
International Journal Of Economics, Finance & Accounting			1			2
International Journal Of Management Science			1			1
Journal Of Management		1				1
European Economic Letters	1					1
European Journal Of Business &Management			1			1
Frontiers In Psychology			1			1
Heliyon					1	2
International Journal Of Academic Research In Accounting, Finance, & Management Sciences		1				1
International Journal Of Academic Research In Business & Social Sciences					1	1
International Journal Of Business, Economic & Financial Studies				1		1
International Journal Of Current Sciences Research & Review				1		1
International Journal Of Economic &Management Studies			1			1
International Journal Of Environment Research & Public Health				1		1
International Journal Of Human Resource Studies	1					1
International Journal Of Management Science & Information Technology		1				1
Journal Of Accounting & Finance Management			1			1
Journal Of Digitinability, Realism & Mastery (Dream)				1		1
Journal Of Management Development			1			1
Journal Of Nursing Scholarship: An Official Publication Of Sigma		1				1
International Honor Society Of Nursing	1					1
Journal Of Management Application		1				1
Journal Of Management Knowledge		1				1
Journal Of Management Research					1	1
Journal Of Business Management, Accountancy & Finance				1		1
Journal Of Indonesia Management		1				1
Management & Entrepreneurship: Trends Of Development		1				1
Journal Of Management & Business		1				1
Journal Of Business Management & Marketing	1					1
Journal Of Management		1				1
Journal Of Human & Social				1		1
Journal Of Management			1			1
Grand Total	4	11	10	10	6	41

Based on the Table 5 justified the total of collected data of paper, a comprehensive overview of scholarly journals during 2020 until 2024, based on various type of journal that been published. The pattern of distribution is based on the year published and the number of producing in certain years. The table shows the total number of journals that been contribute is 41 documents cover various background of studies. Based on the analyzing of the publication through the years that shown the 11 paper that could been produce in 2021 which align with a previous citation peak in the bar chart. The increasing in publication in 2021, may influenced by the effective citation activity, research funding, academic interest and development in covered fields. As mentioned previously, during 2020, the global faces Covid-19 pandemic which affects the number of research activities. A consistent in publication during 2022 and 2023 which contribute 10 publication each. This evidence proves that the consistent in the scholar output and a steady pace of research and dissemination during those years. However, during the year the publication in 2024, have difficulties and limitations in producing research papers which indicate 6 documents. The multidisciplinary nature of the research and the notable contributions from journals such as "Heliyon" and "Current Psychology" across a range of study scopes are also demonstrated by this. To summarize, Table 5 presents the trend of academic publication from 2020 to 2024. It is possible that future research will be able to utilize some effective ways to increase publication in order to maintain an increasing number of publications.

Figure 6. Frequency Of Words in Publication

Figure 6 summarizes the connection and the frequency of the occurrence of the words in the data collected. The data collected is based on various research papers, this frequency will explain the frequent word that will occur, from the various research paper. Figure 6 shows the summary and interconnectedness of academic background of paper, and many scope of research. Besides that, the word "Psychology" is higher, occur 40 times, indicating its centrality and broad relevance across diverse academic and practical applications. The presence of "Social psychology" contribute 33 occurrences, explain that the understanding in the role in understanding human behavior in social contexts. However, the "Organizational commitment" occur in 14 occurrences emerges as a significant area of interest, represent the significant in the employee loyalty and its impact on organizational success. This research study aligns with related keywords such as "Employee engagement" which is 11 occurring words and for productivity and well-being. The interdisciplinary nature of these studies such a "Political science" (16), "Business" (13), and "Engineering" (9) frequently connected with psychological principles, represent the comprehensive approach to addressing complex societal and organizational challenges. Keywords for example "Leadership style" occur 7 times, "Transactional leadership" is 5 times, and "Employee performance" is 4, the continuous research studies will lead to keep occurring the keyword of certain topic. In this research study, the management and psychology in organization environment are quite center in this research. Moreover, the keywords of "Statistics" (6) and "Structural equation modeling" (6) related to the measurement like quantitative methods to rigorously analyze data and validate theories. In summary, summarizing the keyword is crucial to have the insight for gathering keyterm of research to seeing the frequent occurrence word. To have an overview in the connection and correlation between each term, future researchers will be able to widen the chosen of words. To ensure the analysis and theorical of words could be able justified.

DISCUSSION

A detailed examination was conducted on the expressed content of the literature included in order to detect the prevalent themes. The main aim of this examination was to address the research inquiries and validate the results. The subsequent phase of the examination employed the PRISMA quality checklist to evaluate the literature (Page et al., 2021). This phase focused on reviewing the introduction, methodology, results, and discussion sections of the literature. There exist four key inquiries concerning leadership and sustainability, which are elaborated upon below.

1. What specific dimensions of work performance are most influenced by transformational leadership?

Thus, the job performance enhancement caused by the transformational leadership in organizations can be observed at various levels, including the task performance, adaptable performance, and contextual performance. Leaders of change ensure that organizational commitment is attained by providing the requisite vision in a firm which embodies the ability of the workers to perform their tasks effectively and the setting of goals. This enhances task performance that entails the accomplishment of critical requirement at the workplace (Alhempi et al., 2024; Rony et al., 2023). The adaptive performance will boost the organizational attribution, which refers to the employee’s ability to performing work task and handling challenges. This leadership style fosters the organizational climate conducive for the workers’ growth and development and hence the improved ability and inclination of such workers towards the organizational requirements (Rony et al., 2023). Organizational citizenship behavior is greatly affected by transformational leadership because the behavior that impacts the organizational environment is included in transformational leadership. At some certain level these leaders played a role in the most vital element of transformational leadership in regard to positive interpersonal relationship, employees’ loyalty and in conditions of two-way communication, which boosts the commitment of employee to give his best in the organizational context as supported by (Hastin, 2024). In addition, it has been explained to enhance the job satisfaction and the organizational commitment that how the transformational leadership is important to attain the organizational goals and objectives, as mentioned by (Kusumadewi et al., 2018; Rony et al., 2023). The intrinsic motivation and organization citizenship behaviour which is the mediator factor denotes the positive relationship between the transformational leadership and these performance dimensions which are very essential for building up the positive work culture (Hastin, 2024). Furthermore, it confirms that the effect of the transformational leadership on the levels of effectiveness of the employees is mediated by the organizational culture and structure and that these contextual factors can either enhance or inhibit the effect depending on the compatibility to the principles of transformational leadership (Rony et al., 2023). Overall, transformational leadership plays a pivotal role in enhancing multiple dimensions of work performance, making it a critical approach for organizational success.

2. What are the key mechanisms through which transformational leadership influencesemployee performance?

Thus, this paper finds that the given study has direct effects on the employee performance throughthe various factors explained as follows. Firstly, it fosters the acquisition of a firm and solid organizational vision which in the process offers direction or purpose to the employees in light of the vision of that certain organization (Rony et al., 2023). also increases the work commitment where leaders possessing with transformative characteristics motivate the staff and make them enthusiastic towork (Jiatong et al., 2022). Moreover, the theory calls for the promotion of the organizational culture through individual change that yields personal as well as career development for the staff which in turn boosts their internal motivation and commitment to the firm (Rony et al., 2023). From this literature, we explain the positive relationship between transformational leadership and employee performance through the enhancement of communication skills among the leaders to counter the intrinsically motivated factors of the employees in the following way (Sari et al., 2024). In addition, it has an influence on employees' performance through the moderation of organizational citizenship behaviour which is described as voluntary behaviors enacted by the employees over and above required duties dueto job satisfaction and organizational identification (Nur Tanjung et al., 2020). Thus, the effects of transformational leadership on organizational performance serves an impartial function whereby on one side it positively influences performance, yet on the other side its effects are moderated by organisational culture and structure and employees' characteristics which when all said and done either bolster or diminish the effects of the leadership (Rony et al., 2023). While some prior studies indicated that transformational leadership doesn't directly predict any performance other than high work motivation, almost all the findings of the studies which had similarities in the findings agreed that the multi-dimensionality of this leadership style positively impacts increasing the performance by buildingtrust, engaging, and growing (Arman et al., 2019a), This is important in being sensitive to the fact thatorganizational transformational leadership plays a vital role in the success of attaining organizational objectives and workers' performance (Jiatong et al., 2022)(Rony et al., 2023).

3. Which moderating and mediating variables might have an impact on the connection betweenjob performance and transformative leadership?

When reviewing works in the field of transformational leadership and work performance in organizations, several papers indicate that there are mediating and moderating variables between these two constructs. The results reveal that job satisfaction stands out as moderator, given that the relationship between transformational leadership and performance, as well as that of compensation and performance, are affected by it (Idris et al., 2020). Organizational culture also acts as middle while mediating between the antecedents and outcome variables and fully mediates the relationship between transformational leadership and organizational performance for the durability of Small Medium Entities' survival and competitive growth (Essa et al., 2023). Furthermore, organizational citizenship behavior is established as another moderated variable organizational citizenship behaviour has a direct influence on employees' performance and acts as a moderator between transformational leadership andemployee performance (Aristana et al., 2024). As mentioned, work stress is identified as a partial mediator of the relationship which exists between transformational leadership, the work environment, and performance specifically in the banking sector, (Widyadhana & Susilowati, n.d.). Moreover, the paper identified that there exists a significant relationship between the independent variable of transformational leadership and organizational performance; however, employee commitment and the application of expert systems Artificial Intelligent are found to moderate in strengthening the idea of using strong leadership in increasing growth and performance through achieving organizational goals and providing automation in the way of tasks and ideas (Almaududi Ausat et al., 2022). All these findings together reveal that the phenomenon of the relationship between transformational leadership and work performance is indeed a complex one, where mediated variables are job satisfaction, organizational culture, organizational citizenship behavior individual, work stress, employee's commitment, and technological tools. Knowing these mediators could enable the leadership in various organizations to apply better strategies for enhancing performance in order to meet identified goals.

4. Are there sector-specific differences in the impact of transformational leadership on work performance?

5.

Despite the review of the literature pointing to the reality of the differences in transformational leadership on work performance depending on the sector, available studies present numerous findings of the associations in various sectors. In for instance the food processing sector, transformation leadership has the most impact in employee performance given that it improves morale, relations, and call to action from subordinates for organizational goals as postured by (Jiatong et al., 2022). On the other hand, in a study among the public employees, it revealed that transformational leadership has a positive association with the job performance and reduction in family-work conflict albeit insignificant effect on the work-family conflict (Adil & Vapur, 2023). Other example industry is the hotel industry where through the of transformational leadership, especially through the dimension of core leadership and supportive behavior, increases the organizational identification, therefore creativity and task performance. The complexity or nature of tasks entails that stimulation of the intellect notably affects creativity, which in return affects the performance of tasks (Saleh & Helalat, 2019). Furthermore, the study conducted on Ministry of Finance established that transformational leadership has positive impacts on work motivation the same has positive impacts on the employee performance with work motivation acting as mediating variable that boost the indirect effects of transformational leadership on performance (Banin et al., 2020). However, another section of the literature that involved a reduced sample size revealed that though transformational leadership did not influence the performance of employees directly, it did do so when accompanied by high work motivation, thus implying that these factors may not remain consistent cross-organization (Arman et al., 2019). Indeed, these work as a package of evidence that the impact of transformational leadership on work performance is consistently positive based on reviews of the literature above, but the magnitude of the impact and the patterns identified in this study show that these are moderated by organization type or sector, other work conditions such as work motivation and family-work conflict interact in the boosting or damaging the result of work performance.

CONCLUSION

This paper aims to reveal that transformational leadership in the financial services organizations in Malaysia stands out as a critical and effective factor that positively impacts the performance of Malaysian firms and fosters organizational culture that values learning and innovation. Thus, Malaysian business help organizations navigate the strategies while leveraging the available opportunities from technology and regulation to sustain competitive advantage. Through this approach, the leadersestablish a committed and focused workforce towards the attainment of organizational goals, this is very important given the current competitive market situation in the global environment. Literature review of the current research focuses on revealing the content of the various article, most authors paysignificant attention to the positive relationship between transformational leadership and organizational performance, primarily by increasing the satisfaction and commitment of employees, encouraging innovation, and establishing a culture of change and improvement.

Moreover, this study is able to contribute in some other future research to gather the data of the specific topic, the continuous research need an efficient strategies. These studies are indeed useful for development of the transformational leadership qualities that are relevant for the context of Malaysia. Initiating an effective process of implementing the means of transformational leadership, such as paying more attention to the needs and career development of the employees, can be useful in solving the widespread problem of high rates of turnover among the employees of the financial services industry by providing them engaging and rewarding work environment. This review also confirms that there are significant research gaps that relate to the long-term effects and network of contextualization of transformational leadership within the industry. Future research works should continue on the similar study and also expand in an attempt to understand the cultural and regulatory factors that are unique to Malaysia. These findings will be useful in continuing to improve leadership strategies and methods that will enable organizational performance to be maintained, and or improved, along with improving workforce engagement in the sector.

As such, it is not only beneficial but also necessary to incorporate the principles of transformational leadership into Malaysia's financial services industry to achieve sustainable organization performance. It therefore goes without saying that visionary leaders that possess the power to influence, encourage, and create innovativeness will without a doubt steer their firms to the highest level in an ever-emerging industry. Thus, the ability of leaders to unleash talent within their employees will remain a key success factor given that the financial services environment will continue to evolve over time. Therefore, transformational leadership emerges as a significant tool for boosting performance, encouraging people's interest, and stimulating improvements to organizations in the Malaysian financial services sector.

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Ethical Management of Social Enterprises: Integrating *Rahmatan Lil'Alamin* Principles for Sustainable Development

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ABSTRACT

The purpose of this study is to look at the ethical management of social enterprises that incorporateRahmatan Lil'Alamin in order to stay a viable business. The introduction of social entrepreneurship has gained facilitating faster economic growth. In order to satisfy Allah SWT as stated in the *Al-Quran* and *As-Sunnah*, thisstudy suggested to create a new model based on the idea of *Rahmatan Lil 'Alamin*. The goal of this model is to identify the specific important variables that sustain social enterprises. The purpose of the study is to investigate the moral considerations that social entrepreneurs should make in order to achieve sustainable development the fundamentals of *Rahmatan Lil'Alamin*. In order to build and validate the framework, the research employed a qualitative method that involved conducting in-depth interviews with specific social enterprises. According to the findings, social enterprises can adopt a sustainability strategy that incorporates Rahmatan Lil'Alamin methods and believes that since humankind is all alike, it is crucial that we support one another in order to survive and live like others. Individuals who possess this trait align with Islamic principles and are rewarded by Allah SWT for their good deeds. This study's implications for a new development model result in sustainable social entrepreneurial practices and policies. More participants should be included in future studies to further discuss the dynamics of important subject matter components.

KEYWORDS: ethical management, social enterprises, *Rahmatan Lil 'Alamin*, sustainable development

1 INTRODUCTION

Sustainable development in social companies depends on ethical management. *Rahmatan Lil 'Alamin* values, which prioritize justice, compassion, and balance, can have a big impact on these companies' ethical decision-making processes. The virtuous circle of human capital and human resource management, as well as theethics of justice and care, can influence this ethical framework (Μαγρίζος & Roumpi, 2020; Roumpi et al., 2019). The organization's general ethical atmosphere, corporate governance, corporate social responsibility, and humanresource practices are all impacted by these principles (Hauptman & Belak, 2014).

Social companies need an ethical base to ensure that stakeholders—employees, the community, and the environment—are treated with respect. Adhering to the principles of *Rahmatan Lil'Alamin* might strengthen social responsibility programs, encourage diversity and support long-term, sustainable economic growth (Wang, 2023). Additionally, managers must take ethical considerations into account when making strategic decisions since social business ethical decision-making procedures are becoming more and more regarded as significant (Zhang et al., 2010).

Scaling up social enterprises brings ethical challenges, requiring a shift from caring entrepreneurs to caring enterprises. This underscores the importance of addressing ethical considerations during the growth and expansion phases (André & Pache, 2014). The hybrid nature of social enterprises, which prioritize creating societal value over profit, further emphasizes the need to integrate ethical principles into their core operations (Doherty et al., 2014).

Education plays a key role in instilling *Rahmatan Lil 'Alamin* values, not only in social enterprises but also in society at large. Incorporating these principles into educational curricula can nurture individuals with strong moral values, promoting tolerance, justice, and compassion (Wulandari, 2023; Ismail, 2024). Additionally, the ethical climate within organizations, such as healthcare facilities, is crucial for effective management and ensuring professional competence among employees (Shirey, 2005).

Integrating *Rahmatan Lil 'Alamin* principles into the ethical management of social enterprises can foster a culture of compassion, justice, and sustainability. By aligning their practices with these values, social enterprises can enhance their ethical standing and make positive contributions to society and the environment.

The study aimed to achieve the following objective:

1. To explore the ethical factors for social enterprises towards sustainable development with the principles of *Rahmatan Lil 'Alamin*

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2 LITERATURE REVIEW

The importance of the study issue was established, among other things, by the literature review's roles in this thesis. This is done in order to comprehend the significance of the research and to demonstrate how it relates to earlier studies conducted in the same subject. A review of the literature demonstrates how this study expands upon or offers an alternative viewpoint on the corpus of existing knowledge.

2.1 Ethical Management of social enterprises

Ethical management is vital for the sustainable development of social enterprises. Integrating principles such as *Rahmatan Lil 'Alamin* can promote ethical behavior and positive societal interactions within these organizations (Parjiman, 2023). This integration emphasizes not only the importance of justice and benevolence but also the need to uphold rights and obligations, thereby fostering a culture of sustainability (Ismail, 2024). According to Arif (2021), this integration extends to various aspects of society, including education, workplaces, and mass media, promoting values of justice, compassion, and sharing.

2.2 Sustainability

Sustainability is crucial for the success of social enterprises. By incorporating sustainability into the firm's infrastructure, a culture is established where employees and managers proactively seek to improve the company's environmental and social performance beyond their usual duties (Galpin et al., 2015). Additionally, sustainable entrepreneurship is influenced by factors such as sustainability intention, behavioral control, and the propensity for sustainable entrepreneurship (Kimuli et al., 2020; Koe et al., 2014). Entrepreneurs with a strong commitment to sustainability are more likely to innovate and develop products and services that adhere to sustainable practices, thereby enhancing the overall sustainability of their ventures (Kimuli et al., 2020).

2.3 Rahmatan Lil 'Alamin

Rahmatan Lil 'Alamin as mentioned by Mohd Kamal Hassan (2010), contemporary Muslim including scholars and professionals are reminded to promote development from Islamic perspective (Hassan, 2010). It would have to be based from the worldview of *Tawhid.* This include people responsibilities to worship and serveto Allah.

The concept of *Rahmatan Lil 'Alamin* goes beyond ethical behavior to include fostering peace within society, improving human relations with nature, and supporting sustainable spiritual and material development (Arif, 2021). This comprehensive approach supports the notion that Islamic education can be a means to improveenvironmental relations and promote sustainable development (Ismail, 2024). Moreover, applying *Rahmatan Lil Alamin* values across different sectors, such as education, workplaces, and mass media, underscores the wide relevance and applicability of these principles (Qosiimah, 2024).

3 RESEARCH METHODOLOGY

The research attempts to develop a new model in managing social enterprises using the elements in *Rahmatan Lil 'Alamin* to remain sustainable and able to serve the target community. Thus, the use of qualitative research methods through in-depth interviews with selected social enterprises is appropriate for the exploratory nature of studies. Miles and Huberman (1994) argued that to examine complex ideas and difficult study, the use of qualitative methods is appropriate since qualitative methods can put the conditions in question into the right angle and direction. In addition, Marshall and Rossman (1989) recommended the use of qualitative methods to enable researchers to ask more questions in order to explore the context of the study in greater detail.

4 FINDINGS

In this point, it discussed a summary of the findings as mentioned in the abstract to show details about managing social enterprises from *Rahmatan Lil 'Alamin* towards sustainability. It will also discuss the contribution of this research which is related to the elements of *Rahmatan Lil 'Alamin* that can sustain social enterprise and the insights of participants consisting of decision makers from social enterprises.

Question: *Could you please suggest any Islamic behaviour or criteria that social enterprises should havetowards sustainability?*

SE1 mentioned "So if you see of Islam itself, we see the concept of *Taawuf. Taawuf* is the concept of cooperation.We know they are Non-Muslim. They highlight humanity. Invite people to help them. […] We have the passion. But we want to encourage your intention to get the blessing and more rewards and you want to helppeople".

SE2 stated during the interview "He needs to have passion. Passion in other words. Humble, actually everybody can and cannot. Just he need to have passion because to open *Tahfiz*, we do religious work. And not everybody likes religious work".

SE3 "It all depends on Allah. Within that case, the only criteria you need is to please Allah because *Tawhidic* is from Allah and *Tawhidic* is your business model. […] So in social entrepreneurship, you put at the very top, *Tawhidic*, and the second the why. Because it is for Allah. So the why will change".

SE4 answered by informing “I think the intention part is the most important because running a social enterprise, it’s really tough. If your intention is clear and it’s proper, you will get tested over time, and then thisintention is gonna last you through these challenges”.

SE5 “So that teamwork factor is also important to portray, to tell people”.
The following Table 1 summarize the feedback received from the participants during the in-depthinterview.

Code	Main point
SE1	Cooperation
SE2	Passion
SE3	To please Allah
SE4	Intention
SE5	Teamwork

Table 1 Summary of Participants’ Feedback

Figures 1 show the initial proposed conceptual framework for this research.

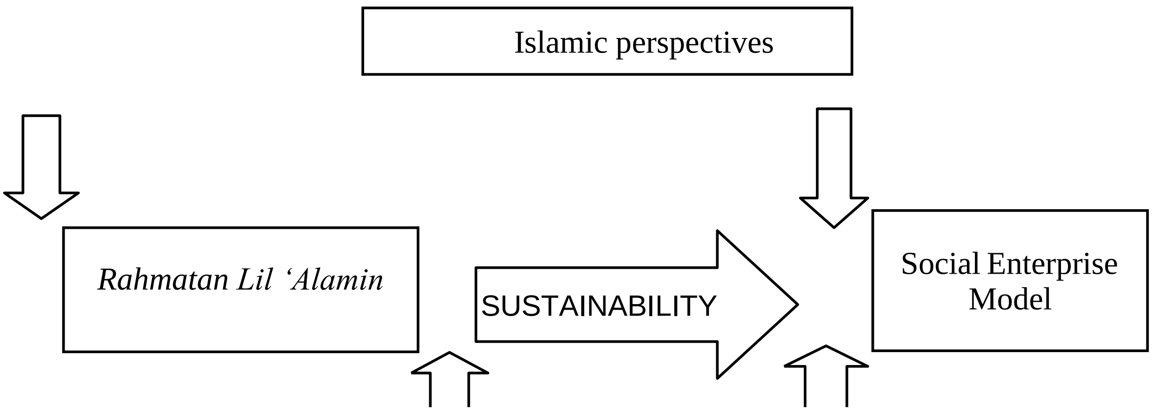

Figure 1: Proposed Conceptual Framework

5 CONCLUSION

This research proposed an alternate model from the practice of *Rahmatan Lil ‘Alamin* for sustainability ofsocial enterprise with comprehensive, holistic and balanced perspectives with dual objectives which are businesscontinuity and provide social benefit.

In addition, the research discusses the philosophical foundation of the *Rahmatan Lil ‘Alamin* and principle of sustainable competitive advantage to show the main differences of the mainstream involved to achieve the research objective. Towards the end of this chapter, the researcher proposed the use of *Rahmatan Lil ‘Alamin* that also helps social enterprise to focus on serving Allah and humanity as the main objectives.

6 ACKNOWLEDGEMENT

The authors would like to thank the University Poly-Tech Malaysia for providing the financial supports for this study. Additionally, we would like to thank all the relevant authors that contributed their ideas in this research.

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SUKAN UNTUK SEMUA: PERBANDINGAN INISIATIF AKSESIBILITI DANDASAR INKLUSIF BAGI ORANG KELAINAN UPAYA DI MALAYSIA DAN AUSTRALIA

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ABSTRAK

Pengiktirafan yang semakin meningkat terhadap hak orang kurang upaya (OKU) dalam sukan menekankan keperluan untuk kemudahan dan acara yang mudah diakses. Walau bagaimanapun, rangka kerja undang- undang Malaysia untuk penyertaan OKU dalam sukan masih belum menyeluruh sepenuhnya dan tidak selari sepenuhnya dengan Konvensyen Pertubuhan Bangsa-Bangsa Bersatu (PBB) Mengenai Hak-Hak OrangKurang Upaya (CRPD). Kertas ini mengkaji peruntukan CRPD, khususnya Artikel 9 dan Artikel 30, yang menumpukan kepada integrasi OKU dalam sukan arus perdana serta memastikan tempat sukan yang mudah diakses. Perbandingan rangka kerja undang-undang di Malaysia dan Australia dilakukan untuk mencadangkan pembaharuan yang menjamin akses sukan kepada OKU di Malaysia. Menggunakan pendekatan penyelidikan undang-undang doktrinal, kajian ini menganalisis data daripada sumber seperti CRPD, perundangan negara, dan kes-kes mahkamah. Penemuan utama termasuk: Artikel 30 CRPD menggesa penyertaan OKU dalam sukandan menekankan penyediaan sukan khusus untuk OKU. Artikel 9 menekankan keperluan untuk ruang awam yang mudah diakses, termasuk tempat sukan. Undang-undang semasa Malaysia yang menangani OKU dalam sukan tidak mempunyai keperincian dan penguatkuasaan seperti yang dilihat di negara Australia yang dikenali sebagai Akta Diskriminasi Kurang Upaya (“Disability Discrimination Act”) 1992 dan dasar sukan negara mereka, yang menawarkan model yang lebih inklusif. Penyelidikan ini mencadangkan pindaan kepada undang- undang negara Malaysia untuk memastikan akses sukan yang sama rata kepada OKU, mekanisme penguatkuasaan yang lebih baik, dan ratifikasi Protokol Pilihan kepada CRPD. Mengambil pengajaran daripada rangka kerja undang-undang Australia akan membantu menyelaraskan undang-undang Malaysia dengan prinsip CRPD tentang maruah, kesaksamaan,dan keterangkuman, memastikan penyertaan penuh OKU dalam sukan.

Kata kunci: Akses, Kurang Upaya, Inklusif, Orang Kurang Upaya, Sukan.

PENDAHULUAN

Memastikan akses yang adil kepada sukan bagi orang kurang upaya (OKU) semakin diiktiraf sebagai hak asasi, namun masih terdapat jurang yang ketara dalam rangka kerja undang-undang yang mengawal keterangkuman dalam sukan. Di Malaysia, walaupun kesedaran mengenai isu ini semakin meningkat, undang-undang sedia ada masih belum sepenuhnya selari dengan Konvensyen Pertubuhan Bangsa-Bangsa Bersatu Mengenai Hak Orang Kurang Upaya ("United Nations Convention on the Rights of Persons with Disabilities") (selepas ini dikenali sebagai "CRPD"), terutamanya berkaitan Artikel 9 dan 30 yang menekankan integrasi OKU dalam sukan arusperdana serta memastikan aksesibiliti kepada tempat sukan. Kertas kerja ini bertujuan untuk menangani kekurangan ini dengan membandingkan rangka kerja undang- undang di Malaysia dan Australia, di mana Australia berfungsi sebagai model keterangkuman melalui Akta Diskriminasi Kurang Upaya 1992 yang kukuhdan dasar sukan yang menyeluruh.

Objektif utama kajian ini adalah untuk mencadangkan pembaharuan undang-undang di Malaysia yang memastikan akses yang sama rata kepada sukan bagi OKU, dengan mengambil pengajaran daripada pendekatan inklusif Australia. Menggunakan metodologi penyelidikan undang-undang doktrinal, kajian ini menganalisis data daripada CRPD, perundangan negara, dan kes-kes mahkamah yang berkaitan untuk menyerlahkan kekurangan dalam peruntukan undang-undang dan mekanisme penguatkuasaan semasa di Malaysia. Tumpuan utama termasuk keperluan untuk peruntukan sukan khusus untuk OKU dan aksesibiliti tempat sukan awam seperti yang diamanatkan oleh Artikel 9 dan 30 CRPD.

Penyelidikan ini penting bukan sahaja untuk pembuat dasar di Malaysia tetapi juga untuk para penyokong hak OKU di seluruh dunia. Dengan menyelaraskan rangka kerja undang-undang Malaysia dengan prinsip maruah, kesaksamaan, dan keterangkuman CRPD, kajian ini bertujuan untuk meningkatkan penyertaan OKUdalam sukan, sekaligus memastikan mereka dilibatkan secara penuh dan berkesan dalam masyarakat. Penemuan ini menyumbang kepada wacana global mengenai hak OKU dan keterangkuman sukan, memberikan laluan untuk pembaharuan yang boleh menjadi penanda aras bagi negara lain yang berusaha meningkatkan akses sukan untukOKU.

SOROTAN LITERATUR

Dalam konteks keterangkuman sukan, pengiktirafan undang-undang dan sokongan untuk orang kurangupaya (OKU) adalah penting bagi memastikan akses yang sama rata kepada kemudahan dan acara sukan. Ulasan literatur ini meneliti rangka kerja undang-undang yang sedia ada, kajian perbandingan, dan data empirikal berkaitan integrasi OKU dalam sukan di Malaysia dan Australia. Melalui analisis Konvensyen Mengenai Hak Orang Kurang Upaya (CRPD), khususnya Artikel 9 dan 30, ulasan ini meneroka jurang dan peluang dalam sistem undang-undang Malaysia serta menawarkan pandangan daripada pendekatan Australia yang lebih menyeluruh.

Rangka kerja undang-undang Malaysia berkaitan OKU dalam sukan pada masa ini kekurangan keperincian dan kekuatan penguatkuasaan seperti yang dilihat di Australia, di mana Akta Diskriminasi Kurang Upaya 1992 dandasar sukan negara mereka menyediakan model keterangkuman yang kukuh. Literatur sedia ada menekankan kepentingan ruang awam yang boleh diakses dan peruntukan sukan khusus untuk OKU seperti yang digariskan dalam CRPD, namun kajian menunjukkan bahawa pelaksanaan di Malaysia masih belum cukup selaras denganpiawaian antarabangsa ini.

Ulasan ini menangani jurang dalam literatur mengenai dasar semasa Malaysia dengan membandingkannya dengan strategi berkesan di Australia. Ia bertujuan untuk menyediakan asas bagi mencadangkan pembaharuan undang-undang yang menekankan maruah, kesaksamaan, dan keterangkuman, bagi memastikan penyertaan penuh OKU dalam sukan. Dengan mensintesis penemuan daripada pelbagai sumber, ulasan ini menyumbang kepada wacana global mengenai hak OKU dan aksesibiliti sukan, sambil mengetengahkan jalan untuk penambahbaikan undang-undang dan struktur di Malaysia.

Artikel 30 CRPD – Penyertaan OKU dalam Sukan

Konvensyen Mengenai Hak Orang Kurang Upaya (CRPD) membuat beberapa peruntukan khusus untuk memastikan aksesibiliti kemudahan dan acara sukan bagi orang kurang upaya (OKU). Artikel 30(5) CRPD secara khusus menumpukan kepada hak OKU dalam bidang sukan, rekreasi, permainan, dan masa lapang, dengan mengamanatkan negara-negara yang meratifikasi Konvensyen ini untuk melaksanakan langkah-langkah proaktif, termasuk perubahan dasar dan perundangan, bagi membolehkan individu OKU merealisasikan sepenuhnya hak asasi mereka dalam bidang-bidang ini (Conroy, 2007). CRPD menekankan pendekatan yang menyeluruh dan berasaskan hak asasi manusia terhadap aksesibiliti, yang bukan sahaja merangkumi akses fizikal tetapi juga akses elektronik dan perkhidmatan, sekaligus memperkasakan OKU untuk menikmati hak mereka sebagai warganegara (Seatzu, 2017).

Dalam konteks acara sukan utama, CRPD berusaha untuk mengatasi diskriminasi terhadap OKU dan membolehkan hak kewarganegaraan, termasuk akses kepada barangan dan perkhidmatan, di semua dimensi penyertaan sosial, seperti Sukan Olimpik dan Paralimpik (Dickson et al., 2016). Walaupun terdapat peruntukanini, penyertaan OKU dalam sukan dan rekreasi masih ketinggalan berbanding dengan populasi umum disebabkan oleh pelbagai halangan, seperti jurang antara bilangan Jawatankuasa Paralimpik Kebangsaan berbanding ahli Jawatankuasa Olimpik Antarabangsa (Legg et al., 2022). Tambahan pula, penyelidikan mengenai aksesibiliti stadium sukan menekankan keperluan pematuhan undang-undang dan peningkatansumber, sama ada fizikal atau manusia, untuk memperbaiki aksesibiliti. Ini termasuk pembangunan Skala Aksesibiliti Stadium (SAS) untuk lebih memahami dan memperbaiki perjalanan yang perlu ditempuh oleh penonton OKU untuk menghadiri acara sukan (Kitchin et al., 2022).

Peruntukan-peruntukan ini dan usaha penyelidikan yang berterusan menyerlahkan kepentingan mewujudkan persekitaran yang inklusif dalam sukan, yang bukan sahaja memberi manfaat kepada OKU tetapi juga semua pihak berkepentingan yang terlibat.

Artikel 9 CRPD – Mencapai Aksesibiliti dalam Sukan untuk Orang Kurang Upaya

Artikel 9 Konvensyen Mengenai Hak Orang Kurang Upaya (CRPD) menekankan kepentingan aksesibiliti, yang penting untuk membolehkan orang kurang upaya (OKU) menikmati sepenuhnya hak mereka, termasuk penyertaan dalam aktiviti sukan. Aksesibiliti bukan sahaja melibatkan akses fizikal, tetapi juga akses elektronik dan perkhidmatan, seperti yang diketengahkan dalam CRPD, yang bertujuan untuk memperkasakan OKU dengan memastikan mereka dapat menyertai sebagai warganegara yang setara (Seatzu, 2017). Walau bagaimanapun, realiti aksesibiliti dalam kemudahan sukan bagi OKU menghadirkan beberapa cabaran. Sebagai contoh, di Indonesia dan Malaysia, isu aksesibiliti dalam kemudahan sukan dikenal pasti sebagai halangan besar kepada penyertaan, dengan atlet-atlet mengutarakan kebimbangan mengenai akses kepada kemudahan latihan dan semasa perlawanan (Fitri et al., 2022).

Halangan seni bina seperti tanjakan kerusi roda yang tidak disesuaikan dan ruang letak kereta yang tidak mencukupi adalah antara rintangan yang sering dihadapi oleh atlet dengan kecederaan saraf tunjang, seperti yang diperhatikan di Belgrade (Kljajić et al., 2018). Pembentukan seni bina kemudahan sukan adaptif adalah penting, dengan trend yang memberi tumpuan kepada mewujudkan persekitaran inklusif melalui prinsip reka bentuk sejagat, yang memastikan akses yang sama rata bagi semua pengguna tanpa mengira keupayaan fizikal mereka (Shkliar & Zaitseva, 2023). Sukan Paralimpik, sebagai acara sukan utama untuk OKU, menekankan kepentingan aksesibiliti, namun sejarah menunjukkan bahawa ia kadangkala bergelut untuk berada di hadapan inovasi dalam aksesibiliti. Penyatuan Sukan Olimpik dan Paralimpik telah menyerlahkan keperluan untuk bandar-bandar tuan rumah mematuhi hak dan undang-undang OKU, sekali gusmeningkatkan jangkaan terhadapstandard aksesibiliti yang tinggi (Darcy, 2017).

Walaupun usaha-usaha ini dijalankan, pelaksanaan langkah-langkah aksesibiliti sering bergerak perlahan, menunjukkan jurang antara cita-cita yang ditetapkan oleh konvensyen antarabangsa dan realiti praktikal yang dihadapi oleh OKU dalam mengakses kemudahan sukan di seluruh dunia.

Isu dalam Undang-Undang Aksesibiliti Sukan untuk Orang Kurang Upaya di Malaysia

Rangka kerja undang-undang semasa untuk orang kurang upaya (OKU) di Malaysia, khususnya berkaitan sukan, dikawal oleh Akta Orang Kurang Upaya 2008. Akta ini, yang berkuat kuasa pada 7 Julai 2008, menegaskan komitmen Malaysia untuk memastikan bahawa OKU dilayan sama rata dengan individu yang berupaya (Tahir et al., 2020). Akta ini mengiktiraf hak OKU untuk mengakses dan menyertai sukan, selaras dengan Konvensyen Pertubuhan Bangsa-Bangsa Bersatu Mengenai Hak Orang Kurang Upaya (CRPD), yang diratifikasi oleh Malaysia pada 19 Julai 2010 (Khoo, 2020; Tahir et al., 2020). Rangka kerja undang-undang ini disokong oleh organisasi kerajaan dan bukan kerajaan yang memainkan peranan penting dalam mempromosikan sukan untuk OKU, terutamanya selepas prestasi cemerlang Malaysia di Sukan Paralimpik 2016 (Khoo, 2020).

Walaupun terdapat peruntukan undang-undang ini, cabaran tetap wujud dalam pelaksanaan praktikal hak-hak tersebut, kerana halangan fizikal dalam persekitaran binaan terus menghalang pergerakan dan penyertaan OKU dalam sukan dan aktiviti lain (Kamarudin et al., 2014). Keperluan untuk persekitaran bebas halangan diakui di peringkat antarabangsa, dan Malaysia telah menubuhkan akta dan undang-undang yang berkaitan untuk menangani keperluan ini. Walau bagaimanapun, terdapat jurang dalam pelaksanaan dan penguatkuasaanmenyeluruh undang-undang ini di semua bangunan dan kemudahan awam, yang penting untuk mewujudkan persekitaran yang inklusif untuk OKU (Kamarudin et al., 2014).

Dari perspektif undang-undang, ia telah banyak menyumbang kepada pembangunan kajian kecacatan di Malaysia, dengan menekankan kepentingan hak dan keterangkuman sosial bagi OKU (Tah & Mokhtar, 2017). Perspektif ini menggalakkan penglibatan masyarakat yang lebih luas untuk menangani kebimbangan dan rungutan yang dihadapi oleh kumpulan yang terpinggir ini, sekali gus mempromosikan hak dan penyertaan mereka dalam sukan serta aktiviti sosial lain (Tah & Mokhtar, 2017). Walaupun rangka kerja undang-undang di Malaysia menyediakan asas yang kukuh untuk hak OKU dalam sukan, usaha berterusan diperlukan untuk memastikan pelaksanaan dan penguatkuasaan yang berkesan bagi undang-undang ini, bagi mencapai keterangkuman dan kesaksamaan yang sebenar.

Rangka Kerja Perundangan dan Pendekatan di Australia

Australia telah membuat usaha yang signifikan untuk memastikan aksesibiliti bagi orang kurang upaya (OKU) ke kemudahan sukan, dengan menumpukan kepada rangka kerja perundangan, penglibatan komuniti, dan amalan reka bentuk inklusif. Akta Diskriminasi Kurang Upaya 1992 (Disability Discrimination Act1992, DDA) adalah asas penting dalam usaha perundangan Australia, yang mengamanatkan akses yang samabagi OKU di mana ia munasabah. Ini termasuk akses kepada kemudahan dan acara sukan (Arch & Burmeister, 2003). Suruhanjaya Hak Asasi Manusia dan Peluang Sama Rata Australia (Human Rights and Equal Opportunity Commission) (selepas ini dikenali sebagai “HREOC”) menyediakan garis panduan yang mentafsirkan DDA, dengan memberi nasihat kepada penyedia perkhidmatan untuk mengelakkan diskriminasi, yang juga merangkumi kemudahan sukan (Arch & Burmeister, 2003).

Di beberapa bandar wilayah Australia, pendekatan transdisiplin telah diambil, yang melibatkan pihak berkepentingan dengan pengalaman hidup sebagai OKU untuk membentuk pelan tindakan kolektif. Pelan ini bertujuan untuk mengintegrasikan perancangan bandar dengan pengangkutan awam, perumahan, dan infrastruktur komuniti bagi meningkatkan aksesibiliti (Tucker et al., 2023; Tucker et al., 2022). Pendekatan ini menekankan kepentingan penyertaan komuniti dalam perancangan bandar, memastikan bahawa keperluan OKU diambil kira dalam reka bentuk dan operasi kemudahan sukan (Tucker et al., 2022).

Konsep reka bentuk sejagat juga dipromosikan bagi memastikan kemudahan sukan boleh diakses oleh semua, termasuk dari segi penonton, keahlian, dan peluang pekerjaan untuk OKU (Anderson & Balandin, 2019). Usaha sedang dijalankan untuk membangunkan Skala Aksesibiliti Stadium (Stadium Accessibility Scale, SAS) bagi menilai dan memperbaiki aksesibiliti stadium sukan, dengan fokus pada aspek fizikal dan pengalaman dalam menghadiri acara sukan (Kitchin et al., 2022). Walaupun usaha ini dijalankan, cabaran tetap wujud dalam merealisasikan aksesibiliti sepenuhnya di kemudahan sukan. Banyak kelab sukan dan stadium masih kekurangan dalam penyediaan untuk OKU, menekankan keperluan untuk penambahbaikan dan penyelidikan yang berterusan (Anderson & Balandin, 2019). Selain itu, walaupun rangka kerja perundangan menyediakan asas yang kukuh, pelaksanaan praktikal dasar-dasar ini memerlukan penilaian danpenyesuaian berterusan untukmemenuhi keperluan OKU yang semakin berkembang.

METODOLOGI KAJIAN

Kaedah Kajian

Kajian ini menggunakan reka bentuk penyelidikan undang-undang doktrinal untuk mengkaji dan membandingkan rangka kerja perundangan yang mengawal penyertaan orang kurang upaya (OKU) dalam sukan di Malaysia dan Australia. Pendekatan ini sesuai kerana ia membolehkan analisis sistematik terhadap prinsip undang-undang, perundangan, dan kes undang-undang untuk menentukan sejauh mana rangka kerja inimenyokong hak OKU dalam mengakses dan menyertai sukan.

Pengumpulan Data

Data untuk penyelidikan ini diambil daripada sumber undang-undang primer dan sekunder. Sumber primer termasuk instrumen undang-undang antarabangsa seperti Konvensyen Mengenai Hak Orang Kurang Upaya (CRPD), khususnya Artikel 9 dan 30, yang memberi tumpuan kepada aksesibiliti dan penyertaan dalam sukan. Selain itu, undang-undang kebangsaan yang relevan dari Malaysia dan Australia, termasuk Akta Diskriminasi Kurang Upaya 1992 (Australia), akan dikaji. Kes undang-undang dari kedua-dua bidang kuasa juga akan dianalisis untuk memahami tafsiran dan penerapan kehakiman terhadap undang-undang yang berkaitan dengan penyertaan OKU dalam sukan. Sumber sekunder, seperti artikel akademik, ulasan undang- undang, dan laporan daripada organisasi yang berkaitan, akan memberikan konteks dan menyokong analisis sumber undang-undang primer ini.

Analisis Perbincangan

Analisis perbandingan yang komprehensif akan dilakukan untuk menilai kekuatan dan kelemahan rangka kerjaperundangan Malaysia berbanding dengan model Australia. Analisis ini akan memberi tumpuan kepadatiga aspek utama; keterangkuman dan spesifikasi perundangan mengenai aksesibiliti tempat sukan, penyertaan OKU dalam sukan arus perdana, dan penyediaan sukan khusus OKU di kedua-dua negara; keberkesanan mekanisme penguatkuasaan dan remedi yang tersedia dalam setiap sistem undang-undang untuk menangani diskriminasi dan memastikan pematuhan; peranan dasar sukan kebangsaan dalam mempromosikan keterangkuman dan aksesibiliti OKU dalam sukan.

Dapatan daripada analisis perbandingan ini akan digunakan untuk mencadangkan pembaharuan yang disasarkan kepada rangka kerja perundangan Malaysia, dengan mengambil kira amalan terbaik dan pengajaran yang diperoleh daripada pengalaman Australia, untuk memastikan keselarasan dengan prinsip CRPD dan mempromosikan penyertaan penuh dan sama rata OKU dalam sukan.

KEPUTUSAN DAN PERBINCANGAN

Hasil kajian ini memberikan pandangan yang bernilai mengenai penyertaan orang kurang upaya dalam sukandi Malaysia. Dengan meneliti rangka kerja semasa Malaysia, tema-tema ini mengetengahkan potensi manfaatdan cabaran dalam mengadopsi strategi yang serupa. Perbincangan memberi tumpuan kepada empat bidang utama:

1. Langkah-langkah perundangan yang komprehensif dalam aksesibiliti kemudahan sukan;
2. Penyertaan OKU dalam sukan arus perdana;
3. Keberkesanan mekanisme penguatkuasaan dan remedi;
4. Peranan dasar sukan kebangsaan.

Tema Utama 1: Keperluan untuk Langkah Perundangan Komprehensif dalam Aksesibiliti Venue Sukan

Pengadopsian Konvensyen Mengenai Hak Orang Kurang Upaya (CRPD) bertujuan untuk berkongsi dan melaksanakan amalan terbaik di kalangan Negara-Negara Pihak yang telah meratifikasikannya, selarasdengan objektif bersama yang dinyatakan dalam Artikel 1 Konvensyen. Objektif ini adalah untuk mempromosikan, melindungi, dan memastikan semua orang kurang upaya menikmati sepenuhnya dan secarasama rata semua hakasasi manusia dan kebebasan asas, serta untuk memupuk penghormatan terhadap maruah mereka yang sedia ada. Berhubung dengan ratifikasi CRPD sebagai piawaian antarabangsa untuk melindungi orang kurang upaya, undang-undang yang diluluskan dikenali sebagai Akta Orang Kurang

Upaya 2008 ("Akta") adalah rangka kerja perundangan penting yang mempromosikan dan melindungi hak- hakorang kurang upaya (OKU) di Malaysia.

Walaupun terdapatnya Akta ini, isu kemudahan persekitaran yang boleh diakses untuk orang kurang upaya terus diabaikan, dan pelaksanaan reka bentuk sejagat untuk menampung pelbagai keupayaan dan kebolehan masyarakat pada masa depan perlu diatasi. Selain daripada isu utama berkenaan kemudahan sukan yang tersedia untuk OKU, penyelidikan yang dijalankan terhadap data mengenal pasti halangan yang dihadapi oleh OKU dalam sukan, iaitu akses kepada kemudahan latihan, akses di dalam kemudahan latihan, akses semasa perlawanan dan jangkaan atlet terhadap kemudahan latihan dan pertandingan (Fitri, et al., 2022). Hakorang kurang upaya untuk mengambil bahagian dalam aktiviti rekreasi, riadah dan sukan dinyatakan dalam Seksyen 32 Akta dan hak untuk mengambil bahagian sama dengan hak untuk mengakses venue sukan dan rekreasi. Perkataan "aksesibiliti" boleh dirujuk sebagai "kemudahan yang disediakan untuk Orang Kurang Upaya untuk merealisasikan peluang yang sama" (Fitri, et al., 2022). Dalam tinjauan literatur yang sedia ada mengenai kekangan yang dialami oleh OKU menunjukkan bahawa halangan yang paling biasa dalam sukan bagi OKU adalah kekurangan akses kepada kemudahan, terutamanya di kalangan pengguna kerusi roda. Daripangkalan data bibliografi, peserta juga terjejas apabila mereka merasakan aktiviti tersebut mencabar dan tidak selesa untuk disertai apabila faktor penting seperti kekurangan dan peralatan yang tidak sesuai, keadaankesihatan individu serta akses yang terhad kepada kemudahan (Wee, et al., 2021). Beberapa kajian yang diperoleh dari penyelidikan ini juga menunjukkan bahawa semua kemudahan rekreasi tidak mesra pengguna dan peserta menyuarakan ketakutan mereka terhadap kecederaan akibat isu aksesibiliti seperti halangan di jalan, lubang jalan dan longkang yang tidak ditutup.

Walaupun dasar nasional bertujuan untuk meningkatkan perlindungan orang kurang upaya di pelbagaisektor, pembangunan kemudahan yang boleh diakses dan mesra alam masih tidak mencukupi. Mengenai perkara ini, terdapat kod amalan dan peraturan bangunan yang ditetapkan untuk memastikan aksesibiliti bagi individu kurang upaya. Tiga kod piawaian untuk amalan penyediaan kemudahan bagi orang kurang upaya, iaitu "Standard Malaysia 1184: 2002 Kod Amalan Akses untuk Orang Kurang Upaya ke Bangunan Awam", "Standard Malaysia 1183: 1990 Kod Amalan untuk Cara Melarikan Diri bagi Orang Kurang Upaya" dan "Standard Malaysia 1331: 2003 Kod Amalan untuk Akses Orang Kurang Upaya di Luar Bangunan". Piawaian ini menekankan keperluan pengguna kerusi roda, pengguna tongkat, mereka yang mengalami kehilangan pendengaran dan penglihatan (Jusoh, 2021). Bersama dengan amalan piawaian dan kod untuk memastikan aksesibiliti kemudahan untuk OKU, undang-undang dan peraturan lain yang dikenali sebagai Undang-Undang Bangunan Uniform 34A (UBBL) dikawal, di mana di bawah undang-undang ini, semua bangunan awam mesti menyediakan kemudahan untuk orang kurang upaya. Peruntukan undang-undang ini 34A yang memerlukan bahawa semua bangunan awam mempunyai kemudahan yang boleh diakses untuk orang kurang upaya yang tersedia di dalam dan di luar bangunan mesti mematuhi Standard Malaysia MS 1184 dan MS 1331. Walaupun terdapatnya peraturan dan perundangan, isu penguatkuasaan untuk menyediakan aksesibiliti dan kemudahan di luar bangunan tetap tidak berubah (Jusoh, 2021). Ditekankan bahawa OKU sangat bergantung kepada tanggungjawab sosial dan kepekaan kerajaan, sektor swasta atau industri dan masyarakat dalam menilai kemudahan untuk menjalankan aktiviti harian mereka. Akses fizikal bagi OKU sangat berkait rapat dengan undang-undang pembinaan dan bangunan di negara kita. Disarankan bahawa pembinaan bangunan mesti mengikuti standard undang-undang untuk menentukan kemudahan yang boleh diakses oleh semua jenis OKU (Wahab, 2016).

Pelaksanaan kod amalan ini dan undang-undang uniform sangat berkait rapat dengan permohonan untuk kebenaran merancang yang memberi kuasa kepada pihak berkuasa perancangan tempatan untuk memastikan peraturan dipatuhi (Maidin, 2012). Penulis membincangkan bahawa keperluan pembangunan mesra halangan berkait dengan permohonan kebenaran merancang. Selain itu, penulis mengkritik fungsi Majlis Kebangsaan di bawah penubuhan Akta sebagai kuasa yang tidak berkesan kerana tidak mempunyai kuasa untuk menghukum mana-mana individu, badan atau agensi kerana gagal mematuhi peruntukan Akta. Selain itu, pihak berkuasa tempatan mesti memainkan peranan mereka dalam memastikan bahawa reka bentuk persekitaran fizikal dan binaan dibangunkan dengan mengambil kira aksesibiliti bagi orang kurang upaya.

Disability Discrimination Act 1992 (DDA) (Australia)

Pada tahun 2022, 5.5 juta rakyat Australia (21.4%) mempunyai kecacatan, menandakan peningkatan daripada
4.4 juta (17.7%) pada tahun 2018. Menurut Tinjauan Kecacatan, Penuaan dan Penjaga (SDAC), seseorang diklasifikasikan sebagai mempunyai kecacatan jika mereka mengalami sebarang had, sekatan, ataukelemahan yang mempengaruhi aktiviti harian mereka (Biro Statistik Australia, 2024). Akta Diskriminasi Kecacatan 1992 (DDA) melarang diskriminasi berdasarkan kecacatan dalam penyediaan barangan, perkhidmatan, atau kemudahan, serta dalam memberikan akses kepada premis awam. Secara tidak konvensional, sebarang aduan yang diterima mengenai diskriminasi kecacatan dalam penyediaan barangan, perkhidmatan dan kemudahan yang dialami oleh orang kurang upaya di Australia ditangani oleh Suruhanjaya Hak Asasi Manusia Australia (AHRC). Seksyen 24 DDA menjadikan ia

sebagai kesalahan untuk mendiskriminasi mana-mana orang kerana kecacatan mereka; sama ada dengan menolak untuk menyediakan barangan atau perkhidmatan kepada mereka atau menjadikan kemudahan tersedia; atau disebabkan terma atau syarat yang dikenakan, atau cara barangan, perkhidmatan atau kemudahan itu disediakan. Dalam rujukan kepada aksesibiliti kemudahan, Seksyen 23 DDA menyatakan bahawa adalah tidak sah untuk mendiskriminasi mana-mana orang kurang upaya untuk mengakses dan menggunakanpremis awam. Premis awam ini merujuk kepada kedai, kafe, restoran, bank, pawagam, teaterdan tempat sukan.

Bagi memastikan aksesibiliti kemudahan untuk orang kurang upaya, Piawaian Akses kepada Premis Kecacatan Australia 2010 ditubuhkan di bawah Seksyen 31 DDA (Piawaian Kecacatan) dengan tujuan untukmemastikan akses yang bermaruah, saksama, kos efektif dan secara munasabah, dapat dicapai ke bangunan, dan kemudahan serta perkhidmatan dalam bangunan, disediakan untuk orang dengan kecacatan. Legislatifini adalah piawaian yang mengikat secara undang-undang di peringkat nasional yang menetapkan keperluan teknikal untuk mereka yang membina atau menaik taraf premis bagi memastikan orang dengan kecacatan dapat mengakses dan menggunakan bangunan, seperti yang dikehendaki oleh DDA. Seksyen 32 DDA menyediakan bahawa adalah tidak sah bagi seseorang untuk melanggar piawaian kecacatan dan penalti akan dikenakan di bawah Akta yang sama. Berkenaan dengan pengguna kerusi roda, Seksyen 8 DDA menjadikan ia sebagai kesalahan untuk mendiskriminasi mereka yang menggunakan 'alat bantuan kecacatan' dan alat bantuan kecacatan ini berkaitan dengan orang kurang upaya termasuk peralatan (termasuk peranti paliatif atau terapeutik) serta kerusi roda dan skuter mobiliti (Suruhanjaya Hak Asasi Manusia Australia, 2016).

Daripada perbincangan yang dinyatakan, peraturan dan perundangan yang tersedia berkaitan dengan aksesibiliti venue sukan untuk OKU gagal untuk memastikan kepatuhan seperti yang diwajibkan dalam Aktadan peraturan lain. Dikatakan bahawa pindaan yang penting kepada Akta Orang Kurang Upaya 2008 adalah penting untuk mengubah lanskap bagi meningkatkan hak orang kurang upaya di Malaysia. Peruntukan yang dinyatakan dalam Akta Diskriminasi Kecacatan Australia 1992 adalah model contoh yang perlu diadopsi dalam kerangka undang-undang kita sebagai langkah perundangan yang komprehensif dalam aksesibiliti venue sukan untuk OKU. Selain itu, disyorkan agar Majlis Kebangsaan Malaysia bagi Orang Kurang Upaya mengaspirasikan peranan Suruhanjaya Hak Asasi Manusia Australia sebagai pihak berkuasa yang diberi mandat dengan fungsi yang lebih luas untuk membantu mana-mana orang yang membuat aduan terhadap mana-mana entiti awam atau swasta yang gagal mematuhi peraturan dan perundangan yang mempengaruhi hak OKU.

Tema Utama 2: Keterlibatan Orang Kurang Upaya (OKU) dalam Sukan Arus Perdana

Dalam satu kajian yang dijalankan untuk meneliti cabaran yang dihadapi oleh atlet pelajar yang kurang upaya dalam sukan, didapati bahawa penyertaan pelajar yang berkeupayaan dan yang kurang upaya dapat meningkatkan kesedaran awam tentang sukan yang bersatu dan inklusif dengan terlibat dalam aktiviti sukan yang sama. Walaupun halangan untuk penyertaan dalam sukan, seperti kemudahan, persediaan, dan sumber, telah dibincangkan, fokus utama haruslah kepada penciptaan lebih banyak inisiatif untuk meningkatkan kesedaran awam mengenai penglibatan orang kurang upaya, khususnya dalam sukan (Abd Rahim, 2018). Selain itu, dalam satu kajian kuantitatif lintang yang dijalankan untuk menilai kualiti hidup orang kurang upaya dalam pengalaman sukan, orang kurang upaya yang memilih untuk menyertai sukan lebih berpuas hatiketika mereka terlibat dalam aktiviti sukan (Lee, 2023). Perbincangan mengenai kualiti hidup bagi OKU adalah penting kerana lebih banyak harapan peribadi terhadap penglibatan OKU dalam aktiviti rekreasi/leisure yang merangkumi aktiviti fizikal dalam sukan mencerminkan peningkatan dalam kualiti hidup mereka (Abd Aziz, et al., 2024). Walaupun terdapat usaha berterusan oleh kerajaan untuk memberikan kehidupan yang lebih baik dan kesejahteraan bagi OKU termasuk dalam undang-undang khusus mengenai OKU, perundangan tersebut tidak mempunyai ketentuan punitif untuk memperbaiki pelanggaran yang mempengaruhi hak mereka (Abd Aziz, 2023).

Menunjukkan komitmen mereka terhadap inklusiviti dalam sukan, agensi kerajaan Australia telah bekerjasama dengan Australian Sports Commission (ASC) dengan pendekatan terintegrasi yang dikenali sebagai 'pembangunan melalui sukan' (Australian Sports Commission, 2013). Program inklusi ini merangkumi penyertaan oleh orang kurang upaya dan orang yang tidak kurang upaya untuk berpartisipasi dalam sukan yang sama. Dari penemuan utama dalam kajian yang dijalankan, penyertaan dalam sukan meningkatkan perasaan OKU dan mempromosikan inklusi masyarakat yang lebih luas (Devine, Carroll, & Sainimili, 2019). Program inklusi ini bermula dalam aktiviti sekolah dan menurut Australian Sports Commission, contoh sukan adaptif dan inklusif bagi orang kurang upaya dan tidak kurang upaya adalah berenang, kriket, softball, golf dan bola sepak. Untuk pematuhan terhadap inklusiviti dalam Akta Diskriminasi Orang Kurang Upaya Australia 1992 (DDA), Seksyen 28 Akta tersebut menyatakan bahawa adalah menjadi satu kesalahan untuk mendiskriminasi mana-mana orang kurang upaya daripada menyertai sebarang aktiviti sukan.

Transformasi yang substansial bagi inklusiviti sukan di Malaysia adalah diperlukan untuk memastikan penyertaan penuh OKU dalam semua aspek kehidupan, terutamanya dalam sukan. Mengambil inspirasi dari model Australia di bawah Akta Diskriminasi Orang Kurang Upaya, Malaysia boleh mengadopsi langkah- langkah yang serupa untuk mempromosikan inklusiviti dalam sukan, memberdayakan OKU sambil memupuk perpaduan nasional dan meningkatkan kesejahteraan semua warganegara. Dengan mengintegrasikan ketentuan yang serupa dengan DDA Australia dan bekerjasama dengan sektor swasta, institusi pendidikan, dan organisasi bukan kerajaan, kerajaan Malaysia dapat melancarkan kempen nasional yang mempromosikan aktiviti sukan inklusif. Program seperti "Sukan untuk Semua," yang diilhamkan oleh inisiatif berasaskan komuniti Australia, dapat mendorong penyertaan dari peringkat akar umbi, memastikan bahawa OKU dari semua peringkat umur dan keupayaan mempunyai peluang untuk terlibat dalam aktiviti fizikal.

Tema Utama 3: Mekanisme Penguatkuasaan dan Remedi yang Berkesan

Akta Orang Kurang Upaya 2008 adalah usaha penting dari kerajaan Malaysia untuk menunjukkan komitmennya dalam menyediakan pendaftaran, perlindungan, pemulihan, pembangunan, dan kesejahteraan bagi orang kurang upaya, serta untuk menyesuaikan diri dengan Rancangan Tindakan Malaysia untuk Orang Kurang Upaya 2016- 2022 (Abdul Rahim, 2017). Cabaran yang dihadapi oleh ramai orang kurang upaya dalam mengakses kemudahan seharusnya ditangani secara undang-undang dengan penguatkuasaan Akta ini. Namun, kajian yang dilakukan mengenai kekosongan dalam Akta ini menunjukkan terdapat kelemahan yang ketara dalam pelaksanaan dan penguatkuasaan Akta tersebut (Abdullah, Hanafi, & Mohd, 2017). Ketiadaan ketentuan punitif dan remedi untuk sebarang pelanggaran terhadap keperluan penyediaan kemudahan yang boleh diakses oleh orang kurang upaya menjadikan undang-undang ini lebih kepada observasi daripada pematuhan. Kekurangan sebarang mekanisme pemantauan yang komprehensif terhadap pihak-pihak yang melanggar Akta OKU atau hak orang kurang upaya juga menjadikannya alat yang tidak berkesan untuk memberikan perlindungan tambahan kepada kumpulan ini. Selain itu, ketiadaan ketentuan khusus mengenai anti-diskriminasi dan anti- penganiayaan dalam Akta ini akan menyebabkan kemunduran lebih lanjut untuk menghapuskan diskriminasi terhadap orang kurang upaya. Di kebanyakan negara Asia termasuk Malaysia, aksesibiliti yang berkaitan dengan bangunan dan kemudahan dari segi peraturan dan pelaksanaan lebih kepada persefahaman bersama daripada penguatkuasaan sebenar. Sebabnya adalah kerana ketiadaan dalam rangka kerja undang-undang mereka untuk penyediaan anti-diskriminasi bagi menguatkuasakan hak sivil danpenyertaan sosial dengan langkah-langkah remedi selanjutnya (Abd Samad, 2018).

Responden dari kajian kualitatif mengenai dasar yang dikenakan oleh kerajaan menyokong inisiatif yang diambil untuk melindungi dan mempromosikan hak orang kurang upaya di banyak sektor. Namun, responden menyatakan kebimbangan mereka tentang pelaksanaan dan penguatkuasaan dasar tersebut yang dianggap “lemah” dan tidak tegas kerana dasar dan penguatkuasaan undang-undang tidak mengenakan sebarang hukuman terhadap ketidakpatuhan terhadap dasar tersebut (Wahab, 2016). Kajian ini mencadangkan agar penguatkuasaan undang-undang dilakukan untuk memastikan pencapaian objektif dasar, khususnya dalam menyediakan kemudahan bagi OKU di pelbagai bidang. Dalam isu penguatkuasaan ini, responden merujuk kepada pelaksanaan denda untuk ketidakpatuhan oleh kerajaan Australia sebagai langkahremedi terhadap mana-mana pelanggar.

Walaupun Malaysia telah meratifikasi Konvensyen, ia telah membuat pengecualian di bawah Artikel 15 (Kebebasan dari penyeksaan atau perlakuan atau hukuman yang kejam, tidak berperikemanusiaan, atau merendahkan martabat) dan Artikel 18 (Kebebasan bergerak dan kewarganegaraan) (Ikmal, 2013). Selain itu, Malaysia juga tidak menandatangani Protokol Pilihan, yang membenarkan individu untuk mengemukakan aduan kepada jawatankuasa pengawas antarabangsa mengenai ketidakpatuhan kerajaan.

Pengecualian ini jelas terdapat di bawah Seksyen 41 Akta Orang Kurang Upaya 2008 yang menjadi perisai terhadap mana-mana pegawai awam dan kerajaan termasuk anggota Majlis di bawah Akta tersebut. Seksyen 42 Akta ini seterusnya melindungi kerajaan dan pegawai awam daripada tindakan atau prosiding undang- undang dengan perlindungan di bawah undang-undang lain, Akta Perlindungan Badan Awam 1948 (Akta 198) (Abdullah, Hanafi, & Mohd, 2017) (Ikmal, 2013).

Di bawah Akta Diskriminasi Orang Kurang Upaya Australia 1992 (DDA), ia merangkumi diskriminasi berdasarkan kecacatan termasuk diskriminasi langsung dan tidak langsung. DDA menjadikan tindakan diskriminasi berdasarkan kecacatan sebagai satu kesalahan di banyak bidang kehidupan awam yang merangkumi pekerjaan, pendidikan, akses ke premis, penyediaan barangan, perkhidmatan dan kemudahan, penyediaan penginapan, penjualan tanah, dan pentadbiran undang-undang dan program Persekutuan (Komisi Hak Asasi Manusia Australia). Sehubungan dengan ketentuan klausa tidak diskriminasi, DDA menyediakan hukuman sebagai remedi untuk diskriminasi yang tidak sah yang dikenakan terhadap orang kurang upaya di bawah Akta tersebut. Ketentuan remedi di bawah Akta ini menyediakan hukuman dalam bentuk penalti bagi sebarang tindakan tidak sah yang ditentukan berdasarkan kategori tindakan. Selain itu, DDA juga memberikan kuasa kepada Komisi Hak Asasi Manusia dan Kesetaraan Peluang Australia (HREOC) untuk memberikan pengecualian sementara dari pelaksanaan ketentuan tertentu mengikut budi bicara Seksyen 55 Akta tersebut.

Dari analisis yang terdahulu, kekosongan pada klausa tidak diskriminasi dan ketentuan remedi serta klausa perlindungan terhadap kecuaian atau pelanggaran yang dilakukan oleh pegawai awam dan kerajaan di bawah Akta OKU adalah bukti bahawa perlindungan bagi orang kurang upaya sangat terbatas berbanding dengan DDA Australia. Beberapa penulis mengkritik Akta OKU sebagai “harimau tanpa gigi” tanpa ketentuan tidak diskriminasi dan remedi untuk secara berkesan melindungi hak orang kurang upaya (Ikmal, 2013). Dalam keadaan ini, untuk meningkatkan perlindungan dalam rangka kerja undang-undang negara kita, tindakan yangperlu diambil adalah untuk mengadopsi mekanisme yang sama dari DDA sebagai bahagian penting untuk menguatkan penguatkuasaan Akta OKU kita. Permintaan mengenai klausa tidak diskriminasi dan ketentuan remedi telah dibincangkan secara meluas oleh ramai penulis untuk meningkatkan perlindungan bagi orang kurang upaya di Malaysia.

Tema Utama 4: Peranan Dasar Sukan Nasional

Komisi Sukan Australia (ASC) telah membangunkan Dasar Nasional untuk penyertaan orang kurang upaya dalam sukan. ASC mempunyai komitmen yang kukuh untuk mempromosikan inklusiviti dalam sukan, memastikan bahawa semua rakyat Australia, tanpa mengira kemampuan, mempunyai peluang untuk menyertai aktiviti sukan. Komitmen ini tertanam dalam visi keseluruhan ASC untuk sukan Australia, yang melibatkan perundingan secara meluas dengan pelbagai pihak berkepentingan termasuk kumpulan advokasi bagi orang kurang upaya, organisasi sukan, dan badan kerajaan (Australian Sports Commission, 2013). Dasar nasional mereka berfungsi secara efektif dalam koordinasi dengan Akta Anti-Diskriminasi 1992sebagai rangka kerja perundangan yang komprehensif untuk menyatukan inklusiviti bagi orang kurang upayadalam pelbagai bidangtermasuk aktiviti sukan.

Visi Sukan Nasional (VSN2030) dilancarkan pada 8 Oktober 2022 dengan konsep “Dari Komuniti untuk Komuniti” dan merupakan dokumen strategik yang bertujuan untuk memajukan industri sukan negara.

Dalam dokumen rasmi kerajaan ini, VSN2030 menekankan komitmen kerajaan; pembangunan industri sukan yang lestari, memanfaatkan budaya sukan sebagai kekuatan penyatu dan sebagai peluang untukmenikmati kemudahan sukan yang boleh diakses oleh semua. Komitmen VSN2030 adalah sejajar dengan Rancangan Malaysia Kedua Belas (RMK-12) dengan objektif “Malaysia Yang Makmur, Inklusif, dan Lestari” yang merangkumi separuh pertama Wawasan Kemakmuran Bersama 2030.

Di bawah rangka kerja VSN2030, tumpuan terhadap sukan untuk Orang Kurang Upaya (OKU) bertujuan untuk menghapuskan diskriminasi dan mempromosikan inklusiviti dalam semua aktiviti sukan, pusat dan kemudahan sukan yang selamat dan mesra keluarga serta inklusif bagi OKU dan semua segmen masyarakat. Dalam menghormati hak OKU terhadap aksesibiliti kemudahan dan tempat sukan, visi ini menggariskan strategi untuk mencapai kemudahan yang mesra pengguna bagi OKU dengan membangunkan garis panduan dan perancangan untuk pusat sukan. Selaras dengan rancangan RMK-12 dan rangka kerja

Strategi F5, tumpuan adalah untuk memberdayakan OKU agar mencapai kemerdekaan dan secara aktif menyertai masyarakat. Ini akan diperkukuhkan melalui peningkatan inklusiviti OKU dalam pendidikan dan latihan, pekerjaan, pembiayaan, dansukan.

Boleh dikatakan, berdasarkan rancangan strategi sebelum ini yang diinisiasikan oleh kerajaan, kebanyakan inisiatif yang dilaksanakan terdiri semata-mata daripada pelan tindakan nasional dengan tempoh pelaksanaan5hingga 10 tahun. Oleh itu, disyorkan agar inisiatif ini disepadukan dengan lebih lanjut ke dalam pelan induk bandar setempat untuk memastikan bahawa pelan aksesibiliti dan inklusiviti mesti melibatkan kolaborasi intensif antara semua pihak berkepentingan untuk memastikan aspirasi nasional dicapai sambil menghapuskanredundansi dan memastikan konsistensi.

KESIMPULAN

Seiring dengan usaha Malaysia untuk mencapai inklusiviti yang lebih besar, adalah penting bagi semua pihak berkepentingan untuk bekerjasama dalam memperluas peluang, memperbaiki infrastruktur, dan meningkatkan kesedaran bagi memastikan bahawa sukan menjadi hak dan bukan keistimewaan bagi orang kurang upaya. Tinjauan literatur ini menekankan peranan penting yang dimainkan oleh rangka kerja perundangan dan reka bentuk inklusif dalam memajukan aksesibiliti sukan bagi orang kurang upaya. Melaluianalisis mendalam terhadap Konvensyen Mengenai Hak Orang Kurang Upaya (CRPD), tinjauan ini menyerlahkan kejayaan serta cabaran yang dihadapi oleh Malaysia dan Australia dalam melaksanakanpiawaian antarabangsa ini. Pendekatan Australia, yang dicirikan oleh Akta Diskriminasi Kurang Upaya 1992yang kukuh dan penglibatan masyarakat yang aktif, menggambarkan strategi komprehensif yang secara efektif menangani aksesibiliti dalam kemudahan sukan. Model ini disokong oleh amalan reka bentuk inklusif dan penglibatan pihak berkepentingan yang mempunyai pengalaman langsung, memastikan bahawa persekitaran sukan adalah mesra untuk semua individu.

Sebaliknya, rangka kerja perundangan Malaysia, walaupun selaras dengan prinsip-prinsip CRPD, sering kali tidak mencukupi dalam aplikasi praktikal. Tinjauan ini mengenal pasti jurang kritikal antara dasar dan pelaksanaan, yang diperburuk oleh halangan fizikal dan sistemik yang berterusan yang menghadkan penyertaan orang kurang upaya. Walaupun terdapat pencapaian yang ketara, seperti kemajuan selepas pencapaian Malaysia di Sukan Paralimpik 2016, masih terdapat keperluan mendesak untuk reformasi yang meningkatkan penguatkuasaan dan pematuhan di semua kemudahan awam dan sukan. Selain itu, tinjauan ini menekankan pentingnya mengadopsi prinsip reka bentuk sejagat dan pendekatan yang dipacu oleh masyarakat untuk mewujudkan persekitaran sukan yang benar-benar inklusif. Dengan meneliti strategi yang berjaya dan mengenal pasti kawasan untuk penambahbaikan, kajian ini menyumbang pandangan berharga bagi pembuat dasar dan advokat yang berusaha meningkatkan aksesibiliti sukan. Ia menyeru usaha berterusan dan kerjasama di semua peringkat untuk memastikan bahawa hak orang kurang upaya direalisasikan sepenuhnya, mempromosikan kesaksamaan dan inklusiviti dalam sukan dan di luar itu. Analisis komprehensif ini bertujuan untuk memaklumkan inisiatif masa depan, memupuk gerakan global ke arah penyertaan yang boleh diakses dansaksama dalam sukan.

PENGHARGAAN

Penulis mengucapkan terima kasih kepada Jabatan Pengajian Umum, Kolej Poly-Tech MARA Alor Setar Kedah, dan Jabatan Undang-Undang, Pusat Pengajian Asas, UiTM. Ucapan terima kasih khas kepadamereka yang telah menyumbang kepada projek ini secara langsung atau tidak langsung.

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Factor influencing the acceptance and adoption of Artificial Intelligence (AI)based platforms among the academic staff based on The Unified Theory of Acceptance and Use of Technology (UTAUT)

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ABSTRACT

In all sorts of areas, Artificial Intelligence (AI) has been becoming increasingly integrated at an accelerating rate. Meanwhile, in education, AI-powered platforms promise to streamline, personalise and optimise. However, the successful adoption of these platforms depends on their acceptance by academic staff. This study investigates the factors influencing the acceptance of AI-based platforms among academic staff, utilising the Unified Theory of Acceptance and Use of Technology (UTAUT) as a theoretical framework. UTAUT proposes that technology acceptance is influenced by performance expectancy, effort expectancy, social influence, facilitating conditions, and UTAUT moderating factors. The research will involve a quantitative survey of academic staff at Kolej Poly-Tech MARA to collect data on their acceptance of AI-based platforms. The collected data will be analysed using statistical analysis such as structural equation modelling (SEM) and related statistical analyses (using SPSS and AMOS) to identify the significant factors influencing the acceptance of these AI platforms. The findings of this study are expected to contribute to a better understanding of the factors that drive the acceptance of AI-based platforms within academic settings. Thus, this knowledge can inform policymakers, educators, and technology developers in designing and implementing effective AI strategies that meet the needs and preferences of academic staff.

KEYWORDS: *Artificial Intelligence, AI, Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, UTAUT*

1 INTRODUCTION

Artificial Intelligence (AI) has been the linchpin of revolutionary advancement in diverse sectors since its conceptualisation in the mid-20th century (Abdulrahman, 2024). The rapid pace of technological advancement has imposed significant universal adaptation. Remarkable smoothness has considered this evolution, demonstrating society's capacity to integrate and benefit from emerging technologies. For example, AI has swiftly risen to prominence as one of the most significant technological breakthroughs of the modern era, revolutionising fields such as healthcare and finance (Abbasi & Hussain, 2024). To elaborate on this point, advanced algorithms trained on extensive datasets using rule-based approaches, statistical models, and deep learning enable AI background language to process and analyse information effectively (Camilleri, 2024). Through this approach, these algorithms generate natural text responses to users, tailoring them to the specific input received. Thanks to its deep learning algorithm, it is capable of producing responses that closely resemble human conversation, making it a highly valuable tool for a wide range of applications.

As noted earlier, these AI algorithms not only enhance computational abilities but also instruct machines on how to learn and improve autonomously, evolving based on continuous exposure to new information (Valavanidis, 2023). This perpetual learning process allows AI systems to refine their processes, ultimately achieving greater efficiency and performing tasks at a level that surpasses human cognitive capabilities in certain domains (Valavanidis, 2023).

In the realm of education, AI is dramatically reshaping how learning and teaching are conducted. Nowadays, AI technologies are accepted and widely used in virtual education, gaining recognition from higher education experts globally. This widespread adoption represents a major shift in the perception of AI as educators realise the technology's transformative role in shaping the higher education landscape (Zahir & Yatim, 2024). AI-driven methods have captured the attention of both technology innovators and academic scholars, especially in fields such as foreign language education, where AI tools such as language translation systems, virtual tutors, and personalised learning assistants are gaining traction. According to Hazaimeh and Al-Ansi (2024), with advancements in technology, AI capabilities in higher education have also progressed, introducing innovations such as virtual assistants and chatbots that offer personalised support to students and simplify administrative tasks for faculties. Intelligent tutoring systems, chatbots, and automated grading tools can enhance efficiency, reduce the time educators spend on tasks, and deliver more precise and consistent feedback (Harry, 2023).

Beyond administrative benefits, AI holds the promise of revolutionising how education is personalised and delivered. By offering innovative ways to tailor learning experiences to individual needs, streamline assessment processes, and reduce the time spent on lesson planning, AI can significantly improve the overall educational experience for both students and educators (Ayala-Pazmiño, 2023). Regarding content delivery, AI facilitates more efficient and flexible distribution by replacing traditional classroom instruction and allowing students to learn from anywhere at any time, which emphasises the meaning of personalised learning (Tahir, Hassan, & Shagoo, 2024). Significantly, AI can also equip educators to enhance the students' AI skills, attitudes, and preparedness for engaging with peers, addressing real-world problems, and collaboratively generating ideas and theories (Tahir, Hassan, & Shagoo, 2024). Common AI platforms used in education, such as ChatGPT by OpenAI, Turnitin with AI Detection, and Google Cloud AI, have tremendously affected the process of learning. Habiba and Preeti (2023) claimed that a major transformation is taking place in the educational industry with the emergence of ChatGPT. Its ability to generate human-like text responses has transformed the way students interact with educational content, making learning more participatory and convenient while providing educators with valuable insights into student performance.

To some extent, AI is not just transforming education; it is revolutionising it in profound ways, enabling personalised, well-executed, and more effective learning experiences for students and educators alike. As AI continues to evolve, its potential to further revolutionise education remains boundless, promising a future where learning is more tailored, accessible, and dynamic than ever before.

Despite the potential benefits of AI in enhancing educational outcomes, improving administrative efficiency, and supporting research endeavours, the adoption of AI-based platforms among academic staff remains inconsistent. Since AI is still a relatively novel concept for educators, they often struggle to react promptly and effectively to the insight provided by AI-enabled applications (Tambuskar, 2022). Creating and deploying sophisticated AI algorithms demands a comprehensive knowledge of machine learning and data science. The intricate nature of these algorithms can pose a significant challenge for educators who do not possess the specialised skills or expertise required to develop and maintain them, potentially hindering their ability to leverage AI effectively (Caleb, 2024). Pedagogical issues add another layer of complexity to the adoption of generative AI in education, AI-based instruction, and traditional, human- centered teaching approaches (Abbas & Graepel, 2024). Educators are increasingly concerned about whether AI can truly replicate the nuanced, empathetic, and relational aspects of human teaching, which play a crucial role in student engagement and learning. As a further point, certain critics contend that integrating AI into education may lead to a dehumanised learning environment, where students interact more with machines than with actual educators (Ayala-Pazmiño, 2023). This shift could diminish the personal connection between educators and students, ultimately making the learning process less engaging and rewarding for students who thrive on human interaction and mentorship. Various factors, including perceptions of usefulness, ease of use, social expectations, and institutional support, affect the acceptance and usage of these technologies within academic environments. However, there is limited understanding of how these factors specifically influence AI adoption among academic staff.

This study seeks to address this gap by using the Unified Theory of Acceptance and Use of Technology (UTAUT) model to explore the determinants of AI acceptance and adoption in academia. By examining key constructs such as performance expectancy, effort expectancy, social influence, and facilitating conditions, this research aims to identify the primary enablers and barriers affecting academic staff's acceptance of AI-based platforms. Understanding these factors is crucial for educational institutions aiming to foster an AI-ready culture that enhances productivity, teaching quality, and research capabilities.

2 LITERATURE REVIEW

2.1 Acceptance and adoption of Artificial Intelligence (AI) based platform in the academic field

The degree to which AI tools are substituting traditional academic writing courses is complex (Al Juaid, 2024; Almaiah et al., 2022; Kim & Kim, 2022). Despite the advancements in AI writing assistants and language models, most scholars believe that traditional academic writing courses will continue to play a vital role in education. Integrating AI tools into academic writing has sparked diverse opinions among educators and students, deviating from traditional writing methodologies. On the positive side, many educators perceive AI as a valuable resource that offers immediate feedback and personalised student support (Akgun & Greenhow, 2022). AI systems can effectively identify grammatical errors, suggest improvements, and optimise the writing process, thereby saving time for both instructors and students (Fyfe, 2023). The integration of AI into academic settings has the potential to revolutionise teaching and learning processes. However, the safe uptake of AI-powered platforms depends on faculty acceptance. This study focuses on several factors influencing this acceptance, including perceived usefulness, ease of use, social influence, and facilitating conditions (Venkatesh et al., 2003). These factors could be developedfurther in the case of AI.
One of the most important constructs in the Technology Acceptance Model (TAM) theory, performance expectancy, is central to AI adoption. Faculty members will be more willing to

adopt AI- powered platforms if they anticipate that such tools will help them teach better and do more research (Akgun & Greenhow, 2022). The second key factor, effort expectancy, concerns how easily people can use AI tools. Friendly interfaces and natural design matter greatly in the degree to which people will adopt AI-based platforms (Venkatesh et al., 2003). Social forces, ranging from peer pressure to organisational norms, can also play a role in the uptake of AI. Academic peers and administrators who adopt AI-poweredtools foster a social norm that facilitates their adoption (Kim & Kim, 2022). Besides that, educational institutions must equip themselves with the resources to allow academic staff to use AI tools effectively (Almaiah et al., 2022). By carefully navigating the opportunities and challenges presented by AI, educational institutions can harness its power to enhance education and create a future where technology and human resourcefulness work together to achieve positive outcomes. Though AI has many advantages,data privacy, security, and job loss could be the factors that slow its acceptance (Juaid, 2024). Addressing ethical considerations and ensuring transparency in developing and deploying AI-based systems is crucialto mitigate these concerns. Suppose institutions can identify the factors that will promote and hinder acceptance of AI-driven platforms and act to minimise the former and the latter. In that case, they can successfully incorporate AI into their academic workflows and arrive at the promised land of this world- altering technology.

A recent study found that the GPT-4 model of OpenAI achieved superior results to human test- takers on American postgraduate admissions exams (Sufyan et al., 2024). This result is consistent with this study, which has demonstrated the emergence of social intelligence in large language models for academicians to acknowledge. Furthermore, institutions must establish clear guidelines and policies regarding the ethical use of AI in academic settings. The guidelines and policies should address plagiarism, academic dishonesty, and potential bias in AI algorithms. The possible negative consequences of using AI in education include the loss of the teachers' role in the classroom, students losing the ability to think critically and be creative, and increased potential for academic cheating in education (Perminova et al., 2023). However, a study by Zhang & Cheng (2021) indicates that AI systems can significantly enhance student satisfaction, with an 80% satisfaction rate reported. The quality of education, services, and information is directly influenced by the successful implementation of AI in education, as demonstrated by the positive reception of the AI platform as a modern learning platform that provides timely content and efficient services. A balanced approach is essential to maximise AI's benefits while mitigating potential drawbacks. Thus, educators must adapt their teaching methodologies to incorporate AI as a tool rather than replacing human interaction. Relating to this study, educators can empower students to use AI responsibly by fostering critical thinking, problem-solving skills, and ethical considerations.

2.2 Artificial Intelligence and Unified Theory of Acceptance and Use of Technology (UTAUT)

Artificial Intelligence (AI), which can be defined as the science of creating intelligent machines (McCarthy, 2007), remains a broad field encompassing the ability to utilise sophisticated machine learning techniques for analysing vast quantities of data to inform ideas and decision-making. The increasing interdependence and influence of these technologies only complicates AI further. Moreover, acceptance and adoption of technology studies have become universal in the academic literature. In this area, one can talk about and make clear many theories. For example, the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) have been widely recognised as effective frameworks for predicting user acceptance in academic backgrounds (Mbanga & Mtembu, 2020). The TAM and UTAUT models have been stated to offer a theoretical foundation for examining the factors thatdrive individual adoption of AI (Al Fouri et al., 2024). These models emphasise the roles of perceived usefulness, ease of use, and social influence in shaping acceptance and usage behaviours. Mbanga & Mtembu (2020) also mentioned that TAM has served as a foundational model for numerous studies in this field, and this theory was initially proposed by Davis in 1989. Previous studies also highlighted that TAM was created to explain the use of IT in various environments, hence modelling how users accept and use technology tools. TAM is based on the Theory of Reasoned Action (TRA), which aims to predict people's behaviour based on their attitudes and intentions (Susilo et al., 2021). Early theories and models relevant to AI development focused on technology acceptance and adoption.

The Technology Acceptance Model (TAM), Diffusion of Innovations Theory (DOI), and Unified Theory of Acceptance and Use of Technology (UTAUT) are among the most widely applied frameworks in this field (Fulton et al., 2022). The advancement of many AI platforms within society can also empower how academicians adapt to this new environment. A recent study highlighted that the endorsement and support of AI by respected faculty members, administrators, and key stakeholders within higher education institutions can significantly influence the perception and adoption of AI technologies (Mohsin et al., 2024). The increasing integration of AI within higher education has fundamentally transformed the traditional learning landscape (Abbad, 2021). AI-powered technologies have the potential to revolutionise teaching and learning practices, offering numerous benefits such as personalised learning experiences, automated administrative tasks, and innovative research methodologies (Mohsin et al., 2024).

AI should be a supplementary tool to enhance, rather than substitute, human-centric elements within education. To ensure its ethical and effective implementation, it is essential to establish clear guidelines, develop comprehensive strategies, and continuously evaluate its impact (Kazoun et al., 2021). By carefully considering these factors, higher education institutions can maximise the benefits of AI while minimising potential drawbacks. UTAUT provides a robust theoretical framework to understand the factors that influence the adoption of AI in higher education. By examining the core constructs of UTAUT, such as performance expectancy, effort expectancy, social influence, and facilitating conditions, researchers can gain valuable insights into the barriers and enablers of AI adoption in academic settings (Al Fouri et al., 2024), significantly impacting the adoption and utilisation of AI in higher education institutions. Moreover, integrating AI has improved efficiency, learning outcomes, personalised learning experiences, and student engagement (Almaiah et al., 2019). This transformation has been facilitated by implementing adaptive learning technologies, intelligent tutoring systems, and chatbots, which have proven effective in enhancing learning experiences and outcomes (Mohsin et al., 2024). Thus, this study will explore UTAUT theory, focusing on educational technology adoption, to establish a theoretical framework for comprehending the acceptance and utilisation of AI technologies within higher education.

2.3 Performance Expectancy

Performance expectancy is the belief that technology will make people more efficient at their jobs (Venkatesh, 2022). Academic staff will be more likely to adopt AI-powered platforms if they believe they might enhance their teaching, research, and administrative effectiveness (Akgun & Greenhow, 2022). Several studies have explored the relationship between perceived performance expectancy and using AI- powered technologies across various sectors. For instance, Yang et al. (2023) found that in the healthcare industry, perceived performance improvements such as improved decision-making and efficiency were strong predictors of the uptake of AI. In the academic field, AI-powered tools can offer a range of benefits, including automated grading, personalised learning, and intelligent tutoring systems. (Mahligawati et al., 2023). However, one must address their challenges to gain the full benefits of these AI-driven platforms, and maybe the most significant challenge will be sufficient training and support for academic personnel to learn how to use these tools effectively (Rasul et al., 2023). Moreover, data privacy and security might become a stumbling block to adopting AI, at least if people worry about potentially misusing their personal information (Chatterjee et al., 2021). By automating routine tasks and providing timely feedback, AI can free up educators' time, allowing them to focus on more strategic and creative aspects of their work (Zhang & Cheng, 2021). Additionally, AI-powered tools can enhance student learning by providing tailored instruction and adaptive learning experiences. In conclusion, performance expectancy is vital in accepting or adopting AI-based platforms in education. Hence, higher education institutions can promote the use of these technologies and enhance educational quality by emphasising the benefits of using AI and ensuring that they provide sufficient training and support.

2.4 Effort Expectancy

Effort expectancy refers to a user's subjective perception of how difficult it is to use technology (Venkatesh et al., 2003). In the context of AI platforms, this construct is a subjective sense of the cognitive labour of engaging with the interface, the learning curve, and the technical expertise needed to take advantage of the technology entirely. The literature has demonstrated that 'ease of use' and 'low training effort' can significantly enhance user acceptance of AI-driven platforms (Venkatesh, 2022). Venkatesh (2022) also mentioned that effort expectancy is highly correlated with the perceived ease of use of AI-powered platforms. If academicians think that these tools will help them save time and effort, they are more likely to make the effort to learn how to use them. A recent study has emphasised the need to create AI tools that are easy to use and come with unambiguous instructions. One survey by Al Fouri et al. (2024) showed that academic staff were more likely to use AI-driven writing assistants if the tools were relatively simple to learn and use. Adequate training and support can mitigate worries regarding effort expectancy and encourage use. Subjective norms and the perceived usefulness of AI-based platforms can also affect effort expectancy (Duong et al., 2024). If academic staff believe that AI can save time, improve productivity, and enhance the quality of their work, they may be more willing to invest the effort required to learn and use these tools (Kim & Kim, 2022). Friendly interfaces, natural navigation, and simple directions can go a long way in mitigating the cognitive costs associated with using these applications. Therefore, it is crucial to demonstrate the tangible benefits of AI-based platforms to academic staff, such as increased efficiency, improved student outcomes, and enhanced research productivity. In conclusion, effort expectancy is critical in accepting AI-based platforms in the educational field. Thus, by designing user-friendly interfaces, providing adequate training and support, and highlighting AI's potential benefits, institutions can encourage the adoption of these technologies and maximise their impact on teaching and learning.

2.5 Social Influence

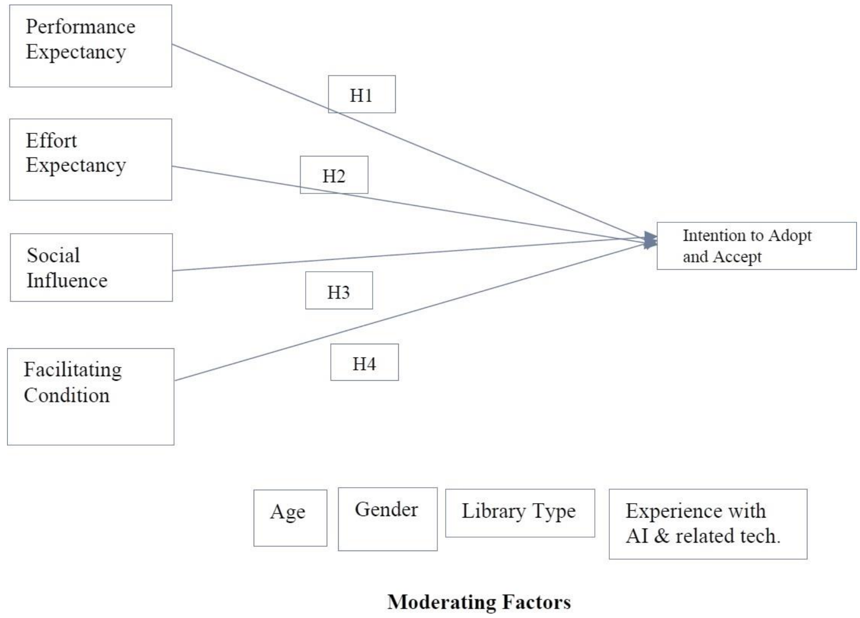
The future of AI-powered platforms in academia depends on many factors, including social interaction or influence. Social influence, a central construct of the Unified Theory of Acceptance and Use of Technology (UTAUT), strongly affects users' attitudes and behaviours regarding technology adoption (Venkatesh, 2022). In the AI platform, social influence can be exercised via peer groups, organisational norms, and the feeling of social pressure. Consistent with prior research, social influence has been found to positively impact the adoption and acceptance of AI in education (Milicevic et al., 2024). This indicates that students' intentions are shaped by their perception of social pressure to adopt AI. Furthermore, student's successful implementation of AI tools can inspire academic staff to view AI as beneficial and incorporate it into their practices. Previous studies also highlighted that the use of AI in higher education can be significantly affected by the promotion and support of distinguished faculty, administrators, and influential players (Mohsin et al., 2024). Moreover, peer approval and positive experiences communicated through professional networks and communities can be necessary in determining attitudes toward AI.

Thus, if the promise of AI in academia is to be fully realised, both technical and social factors need to be taken into account. Academic institutions need to create a positive atmosphere, ensure proper training and support, and emphasise the usefulness of AI to get people to use it. Students may anticipate receiving diverse forms of support in teaching and tutoring activities (Mohsin et al., 2024). Jain et al. (2022) revealed that employees in social development organisations were provided with organisational and technical support to adopt and utilise AI-powered online technologies. To conclude, embedding AI- powered platforms in academia effectively necessitates a multi-dimensional approach that attends to both technological and social aspects. This paper has considered how social influence contributes to the acceptance of AI.

2.6 Facilitating condition

Facilitating conditions are one of the central constructs in the UTAUT model and play a crucial role in determining the acceptance of AI-based platforms (Venkatesh, 2022). This construct refers to the availability of the necessary resources, infrastructure, and technical expertise to implement and use AI technologies effectively. By providing adequate infrastructure, such as high-speed internet and suitable hardware and software, universities can enhance the accessibility and usability of AI tools (Haefner et al., 2023). Furthermore, user training and technical support can facilitate the learning process, empowering users to harness the potential of AI and overcome any initial challenge. A recent study reported that facilitating conditions significantly influenced behavioural intention (Ali, 2022). The study indicates that external auditors' intention to adopt AI as a collaborator practice is not significantly influenced by facilitating conditions, which contrasts with the findings of Cao et al. (2021). As AI becomes part of education, teachers will need to learn about what AI can and cannot do so they can use it effectively in the classroom and teach students how to use it appropriately (Aparicio-Izurieta, 2024). Organisational support is essential in adopting AI-based platforms (Kurup & Gupta, 2022). When institutions prioritise the integration of AI, a conducive environment for AI adoption is created. Additionally, a positive organisational culture that promotes lifelong learning and digital innovation can foster a receptive attitude towards AI among academic staff (Mohiuddin et al., 2022). To ensure the successful implementation of AI, organisations must provide adequate training, technical support, and resources to enable staff to effectively utilise these tools (Morandini et al., 2023). Thus, institutions can create an environment conducive to the effective integration of AI by establishing supportive infrastructure, providing adequate training, and fostering a culture of innovation. The efforts would enable the full potential of AI in the academic field to be realised, leading to enhanced teaching practices, innovative learning experiences, and ground-breaking research outcomes.

2.7 Conceptual Framework



Source: Andrews et al. (2021)

3 RESEARCH METHODOLOGY

3.1 Research Design

This study will employ a quantitative research approach to investigate the relationship between four independent variables (performance expectancy, effort expectancy, social influence, and facilitating conditions) and the dependent variable, the acceptance of AI-based platforms among academic staff. Quantitative research, characterised by its reliance on numerical data and statistical analysis, was chosen to systematically evaluate the factors influencing the adoption of AI-based platforms in academic settings.

3.2 Target Population

This study will be conducted among academic staff at Kolej Poly-Tech MARA Alor Setar, a location selected due to the potential number of academic staff who may not have fully embraced AI-based platforms. By focusing on this institution, the researcher aims to evaluate the factors influencing the acceptance and adoption of such platforms among academic staff. The sample size for this study will be determined using the Krejcie and Morgan table (1970).

3.3 Sampling Technique

A probability sampling technique, specifically stratified random sampling, will ensure a representative Kolej Poly-Tech MARA Alor Setar population sample. This approach will utilise the known number of staff in each department to facilitate the sampling process. As outlined by Thakur (2021), the stratified random sampling technique will be calculated using the following formula: -

Data Collection Procedures

Copies of questionnaires will be issued to targeted respondents. The collected data will be analysed using statistical analysis such as structural equation modelling (SEM) and related statistical analyses (using SPSS and AMOS) to identify the significant factors influencing the acceptance of AI-based platforms.

4.5 Plan for Data Analysis

i. Pilot Test
ii. Reliability analysis
iii. Descriptive analysis
iv. Pearson Correlation analysis
v. Multiple Regression analysis

4 CONCLUSIONS

This study investigated the factors influencing the acceptance of AI-based platforms among academic staff, explicitly focusing on the Unified Theory of Acceptance and Use of Technology (UTAUT) model. The results of this research offer guidance on how to implement AI in academia, as they identify the most critical factors that drive the adoption of AI. The findings revealed that performance and effort expectancy strongly predict the perceived usefulness of AI-driven platforms. Faculty members who see AI as a way to make their teaching and research more efficient and who do not find these platforms challenging to use are more likely to use them. Social pressure is also essential, with peer dynamics and workplace culture influencing opinions about AI. Enabling factors, including training access, technical assistance, and sufficient infrastructure, are critical to effectively using AI-driven platforms. Yet issues, including worries about entrusting AI with sensitive tasks, anxieties about job losses, and a lack of AI literacy, can also slow the uptake of AI. Organisational policies that foster trust, ensure sufficient training, and encourage a culture of support can mitigate these challenges.

The study's results have some implications for universities. Institutions must focus on choosing and implementing AI-powered platforms that are easy to use and that academic staff will want to use. Secondly, providing comprehensive training and support is crucial to ensure that staff can effectively use AI tools. Third, developing an innovation and experimentation culture can promote the use of AI-powered technologies. Long-term studies could assess AI's continuing effects on academic work, identify the influence of particular AI uses (e.g., intelligent tutoring systems, automated grading systems) in determining acceptance, and explore AI's effects on student learning. Of course, cross-cultural studies could also be conducted to see how cultural factors might shape the acceptance of AI-driven platforms. In conclusion, successfully adopting AI-based platforms in academic settings requires a multifaceted approach that addresses both technical and human factors. Organisations can unlock AI's full potential to enhance teaching, learning, and research by understanding the factors influencing acceptance and implementing strategies to overcome challenges.

5 ACKNOWLEDGEMENTS

The authors sincerely thank Kolej Poly-Tech MARA Alor Setar Kedah Malaysia for generously funding this research.

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PENGAGIHAN ZAKAT DALAM SEKTOR PENDIDIKAN: KAJIAN DI MAJLIS AGAMA ISLAM DAN 'ADAT MELAYU PERAK

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ABSTRAK

Zakat adalah salah satu daripada rukun Islam yang lima dan merupakan tangunggjawab sosial yang mesti dilaksanakan. Objektif utama pengagihan dana zakat mengikut pendapat Al-Qaradawi (1973) dalam bukunya yang bertajuk 'Fiqh al-Zakat' ialah untuk mempertingkatkan nilai hidup pemberi, membersihkan dan menyuburkan harta, membantu pihak yang memerlukan serta memperkukuhkan jaminan sosial. Daripada objektif-objektif yang disebutkan ini seperti zakat dapat menyuburkan harta menjelaskan bahawa zakat dapat memperkembangkan lagi harta yang diberikan serta menambah keberkatannya. Penekanan pendidikan juga seharusnya dititikberatkan terutamanya di negeri Perak sama ada penduduk Muslim tersebut berada di dalam bandar mahupun di luar bandar. Perbezaan kawasan penduduk juga memberi kesan terhadap taraf pendidikan umat Islam yang mengambilkira suasana kawasan, kemudahan pengangkutan, taraf ekonomi dan kos kehidupan terhadap penduduk bagi kedua-dua kawasan tersebut. Kajian ini dibuat untuk mengkaji jumlah kutipan dan pengagihan zakat dalam sektor pendidikan oleh Majlis Agama Islam dan 'Adat Melayu Perak (MAIAMPk) pada tahun 2019 sehingga tahun 2021.

Kata kunci: Zakat, Pendidikan, MAIAMPk

PENGENALAN

Zakat adalah salah satu daripada rukun Islam dan merupakan tangunggjawab sosial yang mesti dilaksanakan oleh setiap umat Islam. Kalimah zakat dari segi kata dasarnya bermaksud berkat, tumbuh, bersih dan baik. Sesuai dengan pelbagai maksud ini, zakat sebenarnya adalah merupakan satu konsep yang sangat luas dan terperinci. Terangkum dalam maksud zakat ialah sedekah. Al-Mawardi menyatakan sedekah itu zakat dan zakat itu sedekah.

Zakat merupakan harta yang wajib dikeluarkan apabila telah memenuhi syarat-syarat yang telah ditentukan oleh agama, dan disalurkan kepada orang–orang yang telah ditentukan. Dana zakat hendaklah diagihkan kepada lapan asnaf sebagaimana yang telah ditetapkan dalam Al-Qur'an.

Firman Allah SWT:

> *"Sesungguhnya zakat itu hanya untuk orang-orang fakir, orang-orang miskin, pengurus zakat (amil), mualaf yang dipujuk hati mereka, untuk memerdekakan hamba, orang-orang yang berhutang, orang- orang yang berjuang di jalan Allah SWT, orang-orang yang sedang dalam perjalanan, sebagai ketetapan yang diwajibkan Allah SWT dan Allah Maha Mengetahui lagi Maha Bijaksana."*

Surah at-Taubah (9): 60

Daripada ayat di atas, dapat disimpulkan bahawa dana zakat wajib diagihkan kepada asnaf-asnafyang layak seperti fakir dan miskin, amil, mualaf, fisabilillah, gharimin, ibni sabil dan riqab. Dana zakat yang diagihkan kepada lapan asnaf pada masa kini wujud dalam pelbagai bentuk agihan. Ia merangkumi agihan zakat seperti pendidikan, pembangunan sosial, pembangunan ekonomi, pembangunan institusi agama dan juga pembangunan modal insan. Kewajipan zakat kepada individu Muslim adalah sama sepertimana kefarduan solat untuk menjadi seorang Islam yang sempurna. Ia mempunyai kedudukan yang sangat tinggi dalam Islam dan sering digandingkan perkataannya dengan solat di dalam Al-Quran. Kewajipannya mempunyai pelbagai objektif sosio-ekonomi yang positif bukan sahaja kepada penerima zakat bahkan kepada pembayar zakat dan masyarakat keseluruhannya.

Secara realitinya, harta yang dizakatkan dilihat akan berkurangan pada mata kasar manusia, tetapi sebaliknya jika ditelusuri akan hikmah pemberian zakat ini maka dapat disimpulkan bahawa pada hakikatnya harta zakat ini dapat meningkatkan kegiatan ekonomi masyarakat seterusnya membantu negara ke arah ekonomi negara yang berpendapatan tinggi. Justeru itu, pembangunan masyarakat dari segi kehidupan yang lebih baik seperti bebas dari belenggu kemiskinan di kalangan asnaf, kemajuan ekonomi dan pendidikan dapat dilaksanakan dengan menggunakan dana zakat yang telah dikutip. Ini bertepatan dengan tujuan pensyariatan zakat iaitu untuk membantu golongan asnaf selain menyucikan harta yang diperolehi.

Pengenalan pembangunan pendidikan dipercayai dapat menjadikan sistem sosial, politik dan ekonomi sesebuah negara teguh dan digeruni oleh pihak lain. Di Malaysia, misalnya pembangunan sistem pendidikan telah dilaksanakan bertujuan melahirkan modal insan kelas dunia yang mampu berhadapan dengan cabaran era globalisasi.

Al-Qardawi mengesyorkan bahawa pengagihan zakat perlu sekurang-kurangnya mencukupi tahap kos sara hidup minimum dan keselesaan untuk penerima dan tanggungannya. Jumlah zakat diagihkan perlu dipastikan kesinambungan kehidupan yang berkualiti di mana kesan pengagihan zakat adalah untuk mencapai atau mengcukupi taraf hidup Keperluan Asas (*Daruriyyat*) dan Keselesaan (*Hajiyyat*).

DEFINISI ZAKAT

Kalimah zakat dari segi kata dasarnya bermaksud berkat, tumbuh, bersih dan baik. Sesuai dengan maksud ini, zakat sebenarnya adalah merupakan satu konsep yang sangat luas dan terperinci. Terangkumdengan maksud zakat ialah sedekah.

Menurut syarak pula iaitu nama bagi bahagian yang tertentu daripada harta benda yang tertentu, yang wajib diserahkan kepada orang-orang atau asnaf tertentu dengan syarat tertentu pula. Ia merujuk kepada pembayaran wajib sebahagian harta kepada golongan yang berhak berdasarkan kaedah dan syarat-syarat yang telah ditetapkan oleh syarak.

Berdasarkan definisi ini, dapat difahami tentang maksud yang lebih spesifik berhubung dengan zakat. Ia mempunyai pelbagai perkara yang perlu difahami termasuklah dari segi mereka yang wajib membayar zakat, harta yang diwajibkan zakat, kaedah pengiraan dan peraturan zakat dan pengagihan zakat. Antara dalil kewajipan zakat ini adalah berdasarkan firman Allah SWT:

"Ambillah (sebahagian) daripada harta mereka menjadi sedekah (zakat), supaya dengannya engkau membersihkan mereka (daripada dosa) dan mensucikan mereka…"

Surah at-Taubah (9): 10

GOLONGAN ASNAF YANG LAYAK MENERIMA ZAKAT

Zakat ialah suatu nama atau sebutan daripada sesuatu hak Allah SWT yang dikeluarkan sesorang kepada fakir miskin. Dinamakan zakat kerana di dalamnya terkandung harapan untuk beroleh berkat, membersihkan jiwa dan memupuknya dengan pelbagai kebajikan. Terdapat golongan-golongan tertentu yang layak menerima zakat atau dikenali sebagai asnaf. Antara golongan yang layak menerima zakat ialah:

1. Golongan Fakir.

Golongan yang memiliki harta namun keperluan hidup mereka lebih banyak berbanding harta yang mereka miliki, atau orang-orang yang sihat dan jujur tetapi tidak mempunyai pekerjaan sehingga tidak mempunyai pendapatan. Fakir juga bererti orang yang tidak mempunyai pekerjaan, atau orang yang mempunyai pekerjaan tetapi mempunyai pendapatn yang kecil, sehingga tidak cukup untuk memenuhi sebahagian daripadakeperluannya.

2. Golongan Miskin.

Golongan orang yang mempunyai harta untuk mencukupi keperluan hidup namun tidak memenuhi kriteria, atau orang yang lemah dan tidak berdaya (cacat) kerana telah lanjut usia, sakit atau kerana akibat peperangan, baik yang mampu bekerja mahupun tidak tetapi memperolehi pendapatan yang memadai untuk menjamin keperluan sendiri mahupun keluarganya.

3. Golongan 'Amil Zakat.

'Amil adalah pekerja yang telah diserah tugas oleh penguasa atau penggantinya untuk mengambil harta zakat daripada wajib zakat, mengumpulkan, menjaga dan menyalurkannya kepada yang memerlukan. Erti kata lain, 'amil adalah badan atau lembaga yang mengurus dan mengelola zakat, terdiri daripada orang-orang yang diangkat oleh pemerintah atau masyarakat.

Menurut Imam Shafi'i, 'amil mendapat bahagian seperlapan daripada keseluruhan zakat yang terkumpul, untuk dipergunakan sebagai biaya operasi, pentadbiran, dan gaji bagi anggota kumpulan. Setiap 'amil boleh menerima bahagian zakatnya sebagai petugas sesuai dengan kedudukan dan prestasi kerjanya, walaupun dia seorang yang kaya.

4. Golongan Muallaf:

Muallaf yang dilembutkan hatinya, iaitu orang yang memiliki karisma yang tinggi dalam keluarga atau kaumnya dan diharapkan masuk Islam, atau dikhuatirkan perbuatan jahatnya atau apabila diberi zakat orang tersebut diharapkan keimanannya akan semakin mantap. Dengan dana zakat diharapkan orang seperti ini memiliki keteguhan imannya dan keyakinannya. Sementara Majfuk Zuhdi (1997) berpendapat dengan menyatakan bahawa *muallaf* adalah orang yang menghadapi masalah keluarga atau pekerjaan atau tempat tinggal akibat perpindahannya kepada agama Islam, maka mereka berhak menerima zakat. Adapun orang yang tidak mengalami masalah apapun ketika masuknya kepada agama Islam, amak mereka tidak berhak menerima zakat.

5. Golongan Riqab.

Riqab bererti hamba sahaya. Bahagian ini diberikan untuk memerdekakan budak, atau dalam rangka membantu kemerdekaannya.

6. Golongan Ghorimin.

Ghorimin adalah orang yang berhutang bukan untuk keperluan maksiat, seperti hutang untuk menafkahi dirinya, anak-anak dan isterinya serta hamba sahaya miliknya. Termasuk juga hutang untuk menjalankan perintah Allah SWT seperti haji, umrah dan hutang untuk menunaikan hak-hak seperti membayar diyat (denda) atau pembiayaan perkahwinan.

7. Golongan Fisabilillah.

Sabilillah adalah sarana untuk menuju keredhaan Allah SWT dalam semua kepentingan bagi umat Islam secara umum, untuk menegakkan agama dan negara bukan untuk keperluan peribadi. Perkataan *fisabilillah* memiliki erti yang luas, pengertiannya boleh berubah mengikut kesesuaian waktu dan adat kebiasaan.

Fisabilillah meliputi banyak perbuatan, pelbagai bidang perjuangan dan amal ibadah, baik dari segi agama, pendidikan, ilmu pengetahuan, budaya, kesenian, termasuk mendidirkan rumah sakit, pengiriman da'i atau pendakwah dan sebagainya. Semua usaha kebaikan untuk kemaslahatan umum, semua upaya untuk menambah kekuatan dan kejayaanagama dan negara termasuk dalam kandungan *fisabilillah.*

8. Golongan Ibnu Sabil.

Perkataan *Ibnu Sabil* adalah musafir, orang yang berpergian jauh, yang kehabisan bekalan. Pada ketika itu, ia sangat memerlukan perbelanjaan bagi keperluan hidupnya. Ia berhakmendapatkan bahagian zakat sekadar keperluan yang diperlukan sebagai bekalan dalam perjalanannya sehingga sampai tempat yang dituju.

Sesuai dengan perkembangan zaman, dana zakat *Ibnu Sabil* dapat disalurkan antara lain untuk biasiswa bagi pelajar mahasiswa yang kurang mampu, mereka yang belajar jauh dari kampung halaman, mereka yang kehabisan atau kekurangan perbelanjaan, penyediaan kemudahan yang murah bagi musafir muslim atau asrama pelajar dan mahasiswa.

Sistem pendidikan di Malaysia melibatkan beberapa tahap pendidikan. Antaranya ialah pra-pendidikan, pendidikan sekolah rendah, menengah rendah, menengah atas, pos-menengah dan pengajian tinggi (Kementerian Pelajaran Malaysia). Ishak Yussoff (2009) menghuraikan bahawa pendidikan tinggi merangkumi semua jenis pendidikan lepasan menengah, kolej, institusi latihan perguruan dan pengajian peringkat universiti. Kebanyakan organisasi induk dalam pra-pendidikan dijalankan oleh agensi-agensi bukan kerajaan atau swasta.

Menurut Akta Pendidikan 1996 di Malaysia, pendidikan rendah adalah pendidikan yang wajib bagi warganegara Malaysia. Ibu bapa yang tidak mematuhi peraturan akan didenda RM5000, atau dipenjarakan selama tempoh tidak lebih daripada enam bulan, atau kedua-duanya sekali. Selain itu, yuran tidak dikenakan pada tahap pendidikan dari peringkat pra-pendidikan hingga pendidikan pos menengah. Oleh itu, ibu bapa tidak mempunyai alasan untuk tidak menghantar anak-anak mereka ke sekolah. Selain itu, kerajaan menyediakan pelbagai jenis program biasiswa bagi pelajar-pelajar daripada keluarga berpendapatan rendah serta pelajar yang mempunyai keputusan cemerlang untuk melanjutkan pengajian ke tahap yang lebih tinggi.

LATAR BELAKANG MAJLIS AGAMA ISLAM DAN 'ADAT MELAYU PERAK

Negeri Perak merupakan salah sebuah Negeri-Negeri Melayu Bersekutu (Federated Malay States) yang ditubuhkan menerusi Perjanjian Bersekutu (Treaty of Federation) pada 1 Julai

1896. Pada ketika itu, Majlis Raja-Raja Melayu bagi Negeri-Negeri Melayu Bersekutu (Perak, Pahang, Selangor dan Negeri Sembilan) telah ditubuhkan untuk membincangkan hal ehwal dan kepentingan bersama di antara Raja- Raja Melayu dengan Pemerintahan British. Negeri Perak menjadi tuan rumah kepada mesyuarat pertama Majlis Raja-Raja Melayu bagi Negeri-Negeri Melayu Bersekutu atau lebih dikenali sebagai Mesyuarat Durbar, yang telah diadakan pada 13 hingga 17 Julai 1897 bertempat di Istana Bukit Chandan, Kuala Kangsar, Perak.

Sebagaimana yang telah dipersetujui dengan pihak British, bermula daripada Perjanjian Pangkor pada 20 Januari 1874, hinggalah kepada penubuhan Negeri-Negeri Melayu Bersekutu, suatu ketetapan telah disepakati secara bersama, bahawa, segala perkara berhubung hal ehwal Agama Islam (Islamic Affair) dan Adat Melayu (Malay Custom) hendaklah berada di bawah bidang kuasa Raja Melayu. Justeru, Ketua Agama Islam dan Adat Melayu yang berkuasa penuh di Negeri Perak pada zaman itu, ialah Duli Yang Maha Sultan. Amalan ini dikekalkan hingga ke hari ini.

Dengan penubuhan Majlis Agama Islam dan Adat Melayu Perak, pentadbiran Balai Syara' dan Komiti Quran Perak yang berada di Kuala Kangsar, telah disatukan di bawah Majlis Agama Islam dan Adat Melayu Perak dan dipindahkan ke Ipoh. Manakala, pentadbiran Balai Syara' yang sedia ada telah diserapkan di bawah pentadbiran Pejabat Kadi Kuala Kangsar. Pejabat rasmi Majlis Agama Islam dan Adat Melayu Perak yang pertama telah ditempatkan di Pejabat Setiausaha Kerajaan Negeri.

Bagi memperkemaskan lagi pentadbiran agama Islam dan adat Melayu di Negeri Perak, undang- undang yang berkaitan dengannya telah disemak, dipinda dan digubal beberapa kali. Pada tahun 1965, sebuah undang-undang yang dinamakan sebagai Undang-Undang Pentadbiran Ugama Islam 1965 (Enakmen Bil. 11 Tahun 1965) telah dikuatkuasakan bagi menggantikan undang-undang tahun 1952.

Kemudian, pada 13 Januari 1993, Undang-Undang Pentadbiran Ugama Islam 1965 tersebut telah digantikan pula dengan Enakmen Pentadbiran Agama Islam 1992 (Enakmen Bil. Tahun 1992). Di bawah Enakmen Bil. 2 Tahun 1992 tersebut, Majlis Agama Islam dan Adat Melayu telah diperbadankan secara rasmi sebagai sebuah badan berkanun kerajaan. Bagi tujuan keseragaman dengan negeri-negeri lain seluruh Malaysia, Enakmen Pentadbiran Agama 1992 tersebut, akhirnya digantikan pula dengan Enakmen Pentadbiran Agama Islam (Perak) 2004 (Enakmen Bil. 4 Tahun 2004). Enakmen Bil. 4 Tahun 2004 tersebut telah dikuatkuasakan pada 15 September 2004 dan masih kekal berkuatkuasa sehingga kini. Entiti Majlis Agama Islam dan Adat Melayu juga masih dikekalkan sebagai badan berkanun kerajaan.

PENDIDIKAN DALAM ISLAM

Pendidikan Islam adalah suatu usaha berterusan untuk menyampaikan ilmu, kemahiran dan penghayatan Islam berdasarkan al-Qur'an dan al-Sunnah bagi membentuk sikap, kemahiran, keperibadian dan pandangan hidup sebagai hamba Allah SWT yang mempunyai tanggungjawab untuk membangun diri, masayarakat, alam sekitar dan negara ke arah mencapai kebaikan di dunia dan kesejahteraan abadi di akhirat.

Pendidikan Islam ialah satu proses mendidik, membentuk serta melatih individu dalam pelbagai aspek jasmani, rohani, akal, akhlak dan kesedaran sosial bagi melahirkan manusia yang sempurna, beriman, berakhlak mulia, berbadan sihat, berilmu dan berkemahiran dalam kerjaya.

Pengertian Pendidikan Islam juga adalah suatu proses untuk mengubah tingkah laku individu dalam kehidupannya berdasarkan pada syariat Islam. Konsep pendidikan Islam ialah konsep pendidikan rabbani yang bersumberkan bimbingan Ilahi. Pendidikan Islam dapat melahirkan manusia yang baik dan bertanggungjawab pada diri, keluarga dan masyarakat demi mencapai kebahagiaan hakiki dengan berpandukan wahyu daripada Allah s.w.t. Malah, Rasulullah s.a.w. telah memperkenalkan konsep pendidikan seumur hidup, belajar dan mencari ilmu sepanjang hayat tanpa membezakan lelaki dengan wanita.

Kesimpulannya, pendidikan yang dikehendaki dalam Islam ialah satu proses latihan akal, jasmani,rohani, *ijtimaiah* (kemasyarakatan) dan *akhlaqiah* (akhlak) manusia. Ini berdasarkan nilai-nilai Islam yang bersumberkan daripada al-Qur'an dan al- Sunnah bagi melahirkan manusia yang sempurna.

BANTUAN ZAKAT DALAM PENDIDIKAN

Bantuan pendidikan merupakan salah satu bentuk bantuan terpenting kepada golongan asnaf fakir dan miskin kerana pendidikan merupakan salah satu kaedah atau tiket penting yang dapat mengubah kehidupan dan mengeluarkan golongan ini daripada kepompong kemiskinan. Disebabkan oleh kepentingan pendidikan ini kepada golongan asnaf fakir dan miskin, maka institusi zakat giat memainkan peranan dalam menyalurkan dana zakat dalam bentuk bantuan pendidikan kepada golongan asnaf di Malaysia dan memastikan golongan asnaf fakir miskin ini mendapat peluang pendidikan dan berjaya seperti orang lain.
Zakat memainkan peranan penting dalam pembangunan pendidikan bagi golongan asnaf zakat terutamanya pelajar fakir dan miskin di Malaysia. Terdapat beberapa kes melibatkan golongan fakir dan miskin yang berhenti sekolah dan tidak dapat meneruskan persekolahan disebabkan oleh masalah kewangan. Kes seperti ini telah direkodkan dan mendapat liputan yang meluas oleh pihak media massa dan elektronik.

Berdasarkan tinjauan awal yang dibuat oleh penyelidik terhadap institusi zakat negeri negeri dan unit baitulmal di bawah Majlis Agama Islam Negeri di Malaysia, institusi institusi ini mempunyai skim dan bentuk bantuan atau sumbangan pendidikan kepada golongan asnaf khususnya fakir dan miskin seperti bantuan persekolahan, bantuan melanjutkan pelajaran ke Institut Pengajian Tinggi Tempatan (IPT), biasiswa kecil pelajaran, bantuan kepada sekolah pondok dan juga bantuan pengajian tinggi ke luar negara.

Sebagaimana kajian yang dilakukan oleh Abd Halim dan Mohd Saladin (2011), ia menerangkan kaedah yang dilaksanakan dalam mengelola dana zakat yang telah dikumpul supaya dapat diagihkan kepada asnaf yang berhak. Memandangkan peningkatan prestasi kutipan zakat semakin meningkat maka pengagihan seharusnya meningkat sama supaya dapat mengurangkan bilangan yang tidak berkemampuan. Kajian ini mendapati bentuk bantuan kepada asnaf perlu dimantapkan lagi terutamanya dari segi pengagihan pendidikan. Ini kerana bantuan berterusan dari segi pendidikan kepada golongan asnafbsehingga mereka berjaya adalah sangat penting, ia dapat mengubah kehidupan dan meningkatkan lagi ekonomi negara dan ummah.

ZAKAT PENDIDIKAN DI PERAK

Zakat adalah merupakan salah suatu kaedah yang dapat membantu untuk menjana pembangunan sosio- ekonomi umat Islam. Ia merupakan tangungjawab yang perlu dilunaskan dengan kadar segera bagi mereka yang layak untuk memastikan kestabilan dan keharmonian umat Islam dapat dipelihara dengan sebaiknya. Kewajipan ini turut dilengkapi dengan syarat-syaratnya yang adil, perlu difahami secara mendalam dan disokong bersama dalil-dalil lengkap daripada al-Qur'an dan hadis Nabi saw. Jika masyarakat telah memahami hakikat sebenar tuntutan dan pensyariatan berzakat, nescaya institusi kekeluargaan dapat diperkukuhkan, permasalahan-permasalahan ummah berjaya diselesaikan seterusnya jaringan pertalian ummah semakin erat.

SKIM BANTUAN PENDIDIKAN DI PERAK

Di Malaysia, pungutan zakat semakin meningkat dari semasa ke semasa khususnya di Perak. Disebabkan itu, zakat berperanan sebagai kaedah dalam mengurangkan kemiskinan. Kutipan zakat bolehdigunakan untuk mewujudkan tarikan dana yang boleh digunakan dalam aktiviti-aktiviti pembangunan pembiayaan dan boleh menggantikan perbelanjaan kerajaan. Ini menunjukkan bahawa zakat mempunyai peluang yang tinggi bagi mengurangkan dan menghapuskan kemiskinan serta dapat memberi sumbanganterhadap sektor pendidikan di Perak khususnya dan di Malaysia amnya. Ini dapat dilihat di dalam jadual berikut yang mencatatkan skim-skim dan jenis-jenis bantuan dalam program pendidikan yang telah diagihkan mengikut kategori setiap negeri.

Jadual 1: **Jenis Skim dan Bentuk Bantuan Pendidikan Oleh Institusi Zakat di Perak, Malaysia**

NO.	NEGERI	SKIM DAN BENTUK BANTUAN PENDIDIKAN	ASNAF
1	**Perak**	Bantuan Am Pelajaran, Bantuan Persekolahan, Tambang Perjalanan Pergi dan Balik Belajar Luar Negara, Per-kapita Sekolah Agama Rakyat,Per-kapita Sekolah Latihan Wanita, DermasiswaDalam dan Luar Negara, Sewa Kelas Fardhu ‘Ain SAudara Kita, Skim Latihan Kemahiran Asnaf, Skim Biasiswa Pelajaran Baitulmal.	Fakir dan Miskin, Ibnu Sabil, *Mualaf, Fisabilillah*

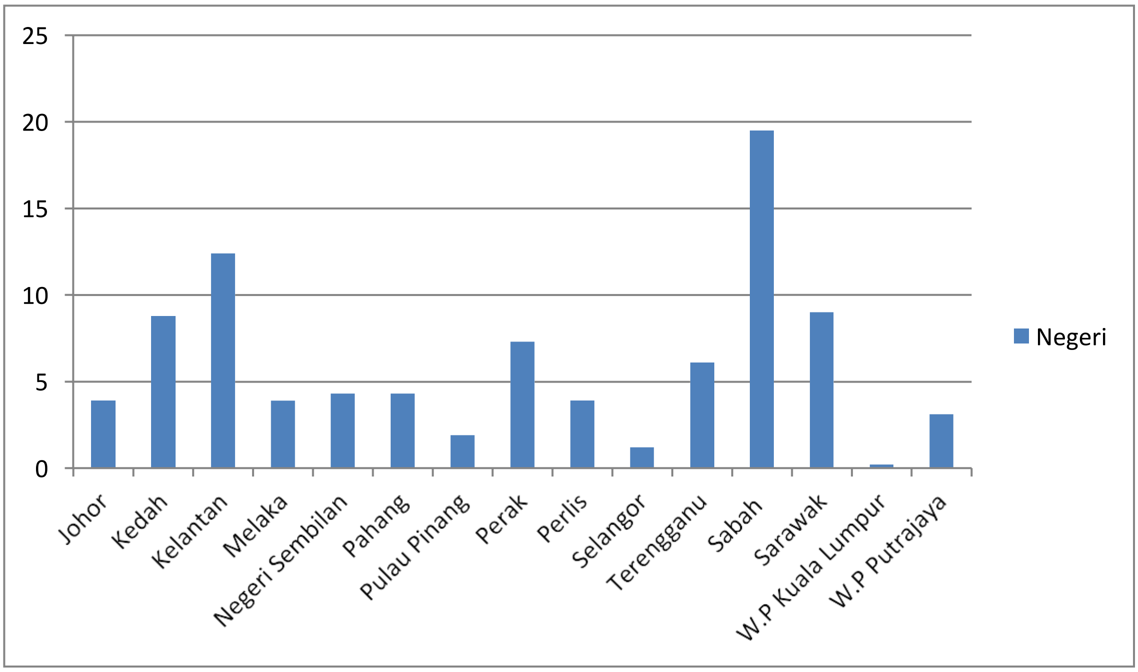
Justeru itu, kajian ini dijalankan bagi mengenalpasti skim dan bentuk bantuan pendidikan yang telah diberikan oleh Majlis Agama Islam Perak kepada golongan asnaf dalam menyambung pelajaran di peringkat sekolah mahupun di peringkat pengajian tinggi. Di samping itu, kajian ini dilakukan untuk melihat dan menilai semula skim dan bantuan pendidikan tersebut sama ada ia dilihat dapat membantu meningkatkan sektor pendidikan dan mengurangkan kadar keciciran pelajaran oleh golongan asnaf yang tidak berkemampuan. Penilaian terhadap penentuan had kifayah kepada golongan asnaf juga diambilkira terutamanya dalam pelan program pendidikan dalam membangunkan taraf pendidikan di negeri Perak.

Hasil kajian ini yang lebih memfokuskan kepada golongan asnaf di negeri Perak diharapkan agar bantuan zakat pendidikan yang diberikan oleh institusi zakat kepada golongan asnaf dapat memberikan sumbangan yang cukup besar dalam mengubah dan membangunkan bidang pendidikan di kawasan bandar mahupun luar bandar di negeri Perak.

PURATA KADAR KEMISKINAN NEGERI-NEGERI DI MALAYSIA

Jika dilihat dari sudut kemiskinan di antara negeri, masih terdapat lagi negeri-negeri yang mempunyai taraf kemiskinan yang membimbangkan. Berdasarkan rajah berikut menunjukkan data paras kemiskinan mengikut negeri-negeri oleh Jabatan Perangkaan Malaysia yang diperolehi.

Rajah 1: **Insiden Kemiskinan Mutlak Mengikut Negeri di Malaysia, Tahun 2019**



(Sumber: Unit Perancangan Ekonomi,Jabatan Perdana Menteri, 2022)

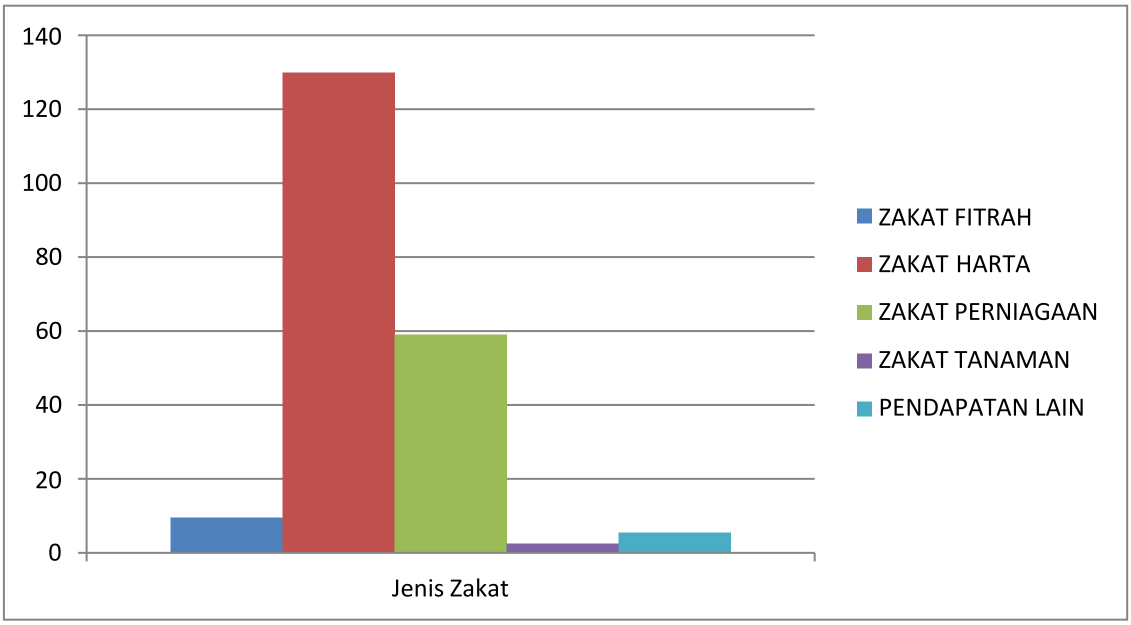
Jika dilihat secara purata kadar kemiskinan mengikut negeri di Malaysia, negeri Perak juga tergolong dalam kalangan antara lima buah negeri yang mempunyai tahap kemiskinan yang tertinggi selain Sabah, Sarawak, Kelantan dan Pahang. Walaupun terdapat beberapa buah negeri yang mencapai tahap 0.2 peratus kemiskinan seperti di Wilayah Persekutuan Kuala Lumpur, kadar kemiskinan di negeri Perak mencapai tahap yang perlu diberi perhatian dan diatasi. Kadar kemiskinan ini juga akan memberi kesan terhadap beberapa aspek antaranya dari sudut pendidikan.

KUTIPAN DAN AGIHAN ZAKAT DALAM PENDIDIKAN DI PERAK

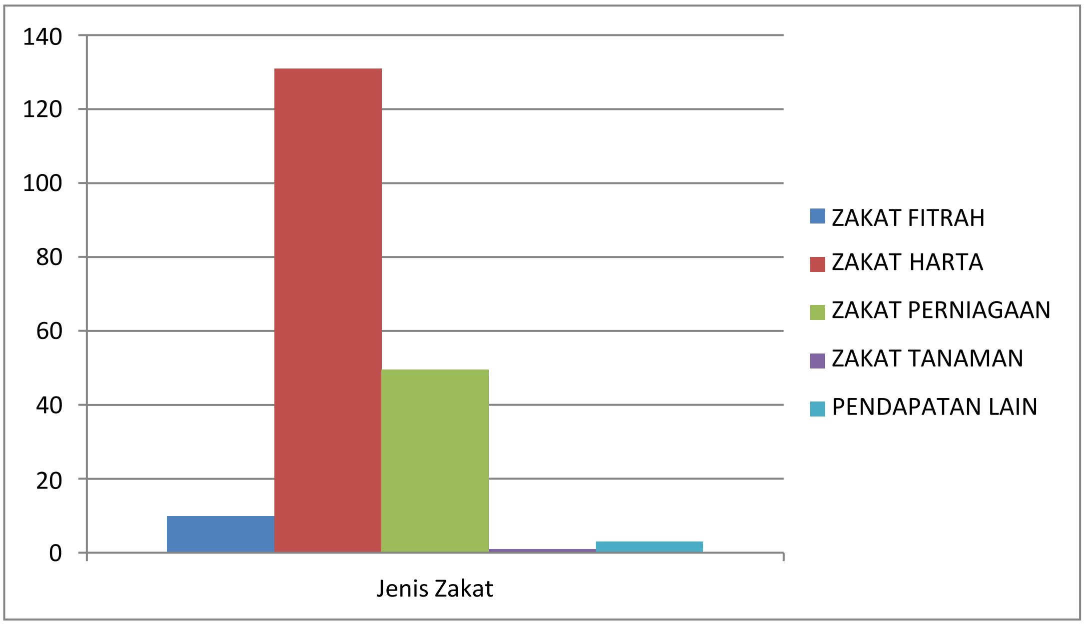
Prestasi kutipan zakat di Perak pada tahun 2019 sehingga 2021 telah menunjukkan jumlah kutipan melebihi 100 juta lebih setiap tahun. Ini berdasarkan statistik kutipan zakat dan bilangan pembayar zakat harta dan fitrah di Perak bagi ketiga-tiga tempoh tahun berikut berdasarkan data yang diperolehi daripada Bahagian Zakat, Majlis Agama Islam dan 'Adat Melayu Perak. Jumlah kutipan zakat di Perak pada tahun 2019 adalah sebanyak RM 207,187,054.00, pada tahun berikutnya telah mengutip hasil daripada pembayaran zakat sebanyak 194,852,777.00 dan sebanyak 183,643,097 mengikut jenis kutipan zakat. Rajah di bawah menunjukkan statistik kutipan zakat harta dan fitrah di Perak bagi tahun 2019 sehingga 2021.

Kutipan Zakat

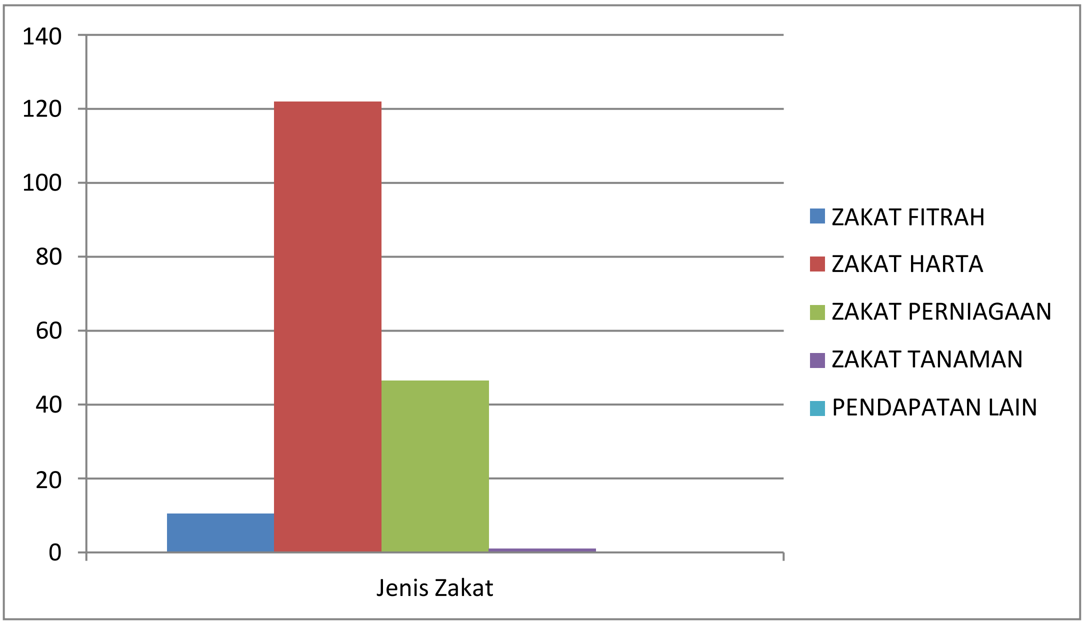
Rajah 2: Kadar Kutipan Zakat di Perak Bagi Tahun 2019



Rajah 3: Kadar Kutipan Zakat di Perak Bagi Tahun 2020



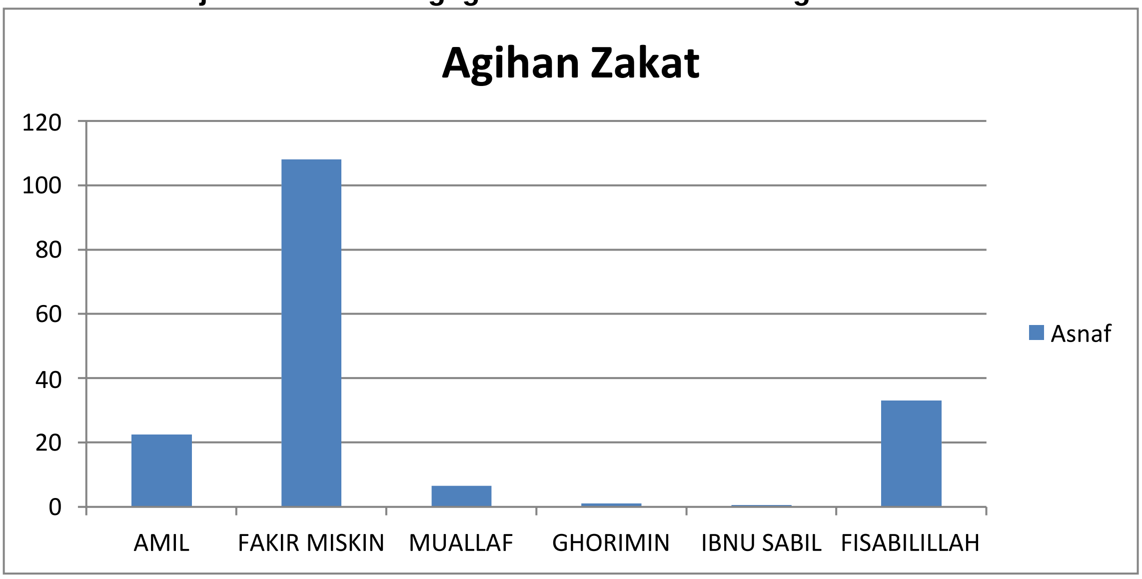
Rajah 4: Kadar Kutipan Zakat di Perak Bagi Tahun 2021



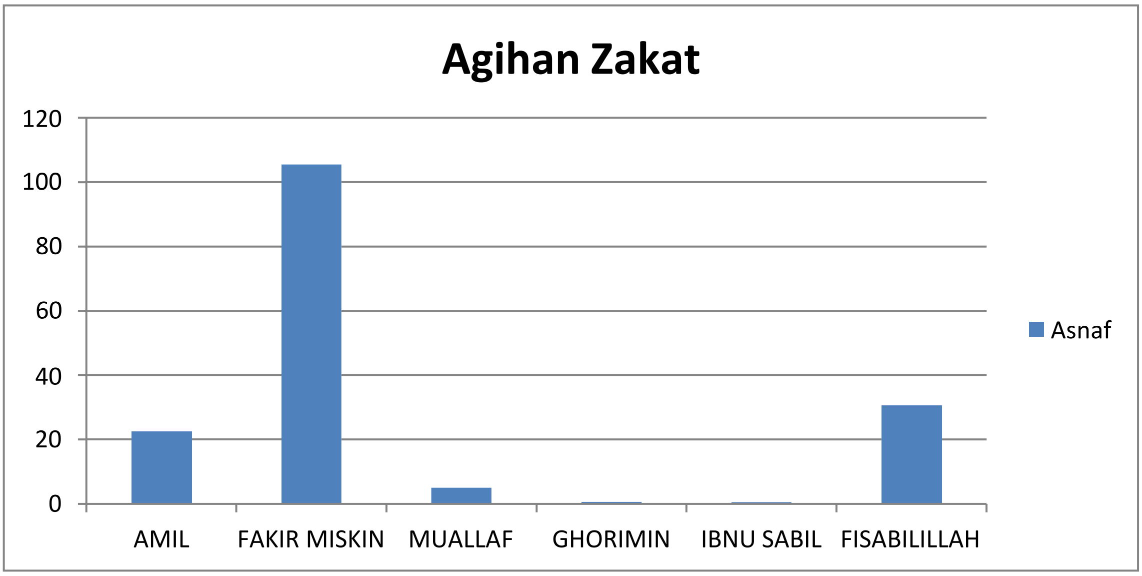
Rajah di atas menunjukkan kutipan zakat di Bahagian Zakat, Majlis Agama Islam dan 'Adat Melayu Perak bagi tahun 2019-2021. Kutipan zakat telah dilaksanakan dengan menerima pembayaran zakat melalui zakat fitrah yang menunjukkan peningkatan setiap tahun daripada pembayar zakat iatu berjumlah RM 9,538,619 (2019), RM 9,918,495 (2020) dan RM 10,616,7356 (2021). Jumlah kutipan bagi zakat harta juga menaik dari tahun 2019 sebanyak RM 130,927,820 kepada RM 131,045,916 (2020). Akan tetapi, jumlah kutipan pada tahun berikutnya sedikit menurun dengan menerima bayaran zakat harta berjumlah RM 122,159,596. Situasi ini juga berlaku dalam penerimaan pembayaran zakat perniagaan apabila jumlah keseluruhan yang diterima pada tahun 2019 adalah sebanyak RM 58,853,531 kemudian mengalami penurunan penerimaan bayaran kepada RM 49,546,824 dan RM 46,408,415 pada tahun 2021.

Agihan Zakat

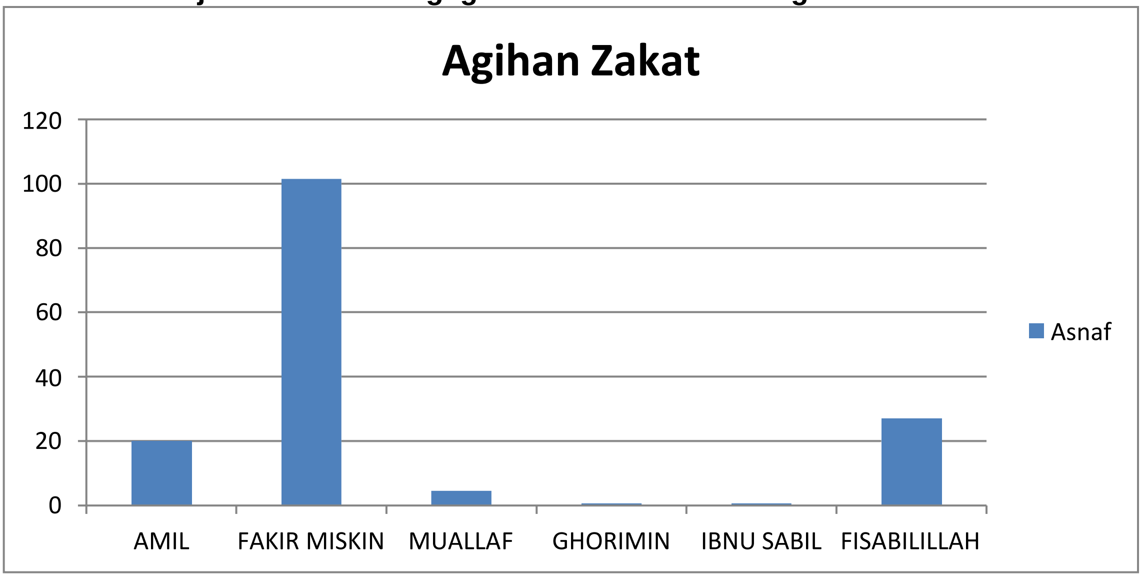
Rajah 5: Kadar Pengagihan Zakat di Perak Bagi Tahun 2019



Rajah 6: **Kadar Pengagihan Zakat di Perak Bagi Tahun 2020**



Rajah 7: **Kadar Pengagihan Zakat di Perak Bagi Tahun 2021**



Agihan zakat melalui skim zakat pendidikan merupakan faktor penting dalam projek jangka masa panjang pembasmian kemiskinan. Pembasmian kemiskinan merupakan perkara yang perlu dititikberatkan selari dengan usaha negara ke arah ekonomi berpendapatan tinggi. Begitu juga menurut pendapat Al- Qardawi mengenai fungsi zakat dalam pembasmian kemiskinan dalam bukunya yang bertajuk “Bagaimana Cara Islam Menyelesaikan Masalah Kemiskinan” iaitu “zakat tidak berfungsi sebagai suntikan penenang yang boleh meringankan derita untuk beberapa saat tetapi sebagai ubat penyembuh yang boleh membasmi penyakit sehingga akar umbinya.”

Bersesuaian dengan matlamat penubuhan MAIAMPk yang bertanggungjawab ke atas hal ehwal umat Islam, maka langkah-langkah untuk membela asnaf fakir miskin perlu diberi perhatian, terutamanya kepada golongan yang memerlukan sumbangan dalam bidang pendidikan. Justeru itu, kajian ini dijalankan untuk mengenalpasti akan keberkesanan pengagihan zakat oleh MAIAMPk kepada golongan asnaf terutamanya dalam meningkatkan sektor pendidikan, mengurangkan jurang kemiskinan dan ketidakseimbangan pengagihan pendapatan di kalangan asnaf fakir dan miskin di negeri Perak.

PRESTASI PELAKSANAAN ZAKAT DI NEGERI PERAK

Hasil daripada kajian mengenai prestasi pelaksanaan zakat sama ada dari segi kutipan mahupun agihan zakat di negeri Perak, berikut dapat diterangkan secara terperinci perbandingan jumlah kutipan dan agihan zakat bagi tiga tahun terakhir. Ini sebagaimana dapat dilihat dari sudut prestasi kutipan dan juga agihan zakat di negeri Perak.

4.2.1.1 Prestasi Kutipan Zakat di Negeri Perak.

Di Malaysia, pungutan zakat semakin meningkat dari semasa ke semasa khususnya di Perak. Disebabkan itu, zakat berperanan sebagai kaedah dalam mengurangkan kemiskinan. Kutipan zakat boleh digunakan untuk mewujudkan tarikan dana yang boleh digunakan dalam aktiviti-aktiviti pembangunan pembiayaan dan boleh menggantikan perbelanjaan kerajaan. Ini menunjukkan bahawa zakat mempunyai peluang yangtinggi bagi mengurangkan dan menghapuskan kemiskinan di Malaysia.

Sebagaimana di negeri Perak, kutipan zakat telah menunjukkan satu keputusan yang memberansangkan berdasarkan jumlah kutipan yang dibuat. Begitu juga dengan kutipan setiap tahun yang telah menunjukkan peningkatan yang begitu baik. Ini sebagaimana di dalam Jadual 7 menunjukkan jumlahkutipan zakat di negeri Perak pada tahun 2019-2021.

Jadual 2: Data Kutipan Zakat di Negeri Perak.

TAHUN	KUTIPAN (RM)
2019	207,187,054
2020	194,852,777
2021	183,643,097

Jadual di atas menunjukkan bahawa jumlah kutipan dan agihan zakat telah meningkat dari tahun 2019 sehingga tahun 2021. Prestasi ini menunjukkan peningkatan tahap kepercayaan yang diletakkan olehpembayar zakat kepada jabatan pengurusan zakat. Peningkatan yang memberangsangkan ini disebabkan oleh banyak faktor antaranya kaedah pembayaran yang mudah, pengurusan zakat yang semakin cekap, penswastaan institusi zakat dan sebagainya. Penswastaan institusi zakat telah menimbulkan minat ramai pengkaji untuk melihat kesannya terhadap jumlah kutipan zakat.[1]

4.2.1.2 Prestasi Agihan Zakat di Negeri Perak.

Memandangkan peningkatan prestasi kutipan zakat semakin meningkat maka pengagihan seharusnya meningkat sama supaya dapat mengurangkan bilangan yang tidak berkemampuan. Kajian ini mendapati bentuk bantuan kepada asnaf perlu dimantapkan lagi terutamanya dari segi pengagihan pendidikan. Ini kerana bantuan berterusan dari segi pendidikan kepada golongan asnaf sehingga mereka berjaya adalah sangat penting, ia dapat mengubah kehidupan dan meningkatkan lagi ekonomi negara dan ummah.[2] Sebagaimana di dalam Jadual 8 menunjukkan jumlah kutipan zakat di negeri Perak pada tahun 2019-2021.

Jadual 3: Data Agihan Zakat di Negeri Perak.

TAHUN	AGIHAN (RM)
2019	197,148,840
2020	190,724,558
2021	171,330,034

Berdasarkan jumlah kutipan yang dibuat oleh Majis Agama Islam dan 'Adat Melayu Perak, ini menunjukkan bahawa prestasi dapatan agihan zakat kepada golongan asnaf semakin meluas, terutamanyakepada golongan yang menyambung pelajaran di pengajian tinggi. Walaubagaimanapun, agihan dan kelayakan penerimaan zakat pendidikan adalah bergantung kepada penentuan had al-kifayah di negeri Perak dengan mengambilkira pendapatan isi keluarga dan juga perbelanjaan isi rumah. Ini yang akan menentukan kelayakan dalam menerima dana zakat pendidikan bagi yang menyambung pelajaran.

PENGURUSAN AGIHAN ZAKAT PENDIDIKAN KEPADA GOLONGAN ASNAF DI NEGERI PERAK.

Berdasarkan kajian ini, didapati bahawa hampir kesemua golongan asnaf zakat menerima bantuanatau skim pendidikan zakat kecuali golongan asnaf iaitu gharimin, al-riqab dan amil zakat di negeri Perak. Golongan asnaf fakir dan miskin di Negeri Perak menerima bantuan atau zakat pendidikan dalam bentuk bantuan am pelajaran, bantuan persekolahan, skim latihan kemahiran asnaf dan skim biasiswa pelajaran baitulmal. (Laporan Kutipan dan Agihan Zakat Perak, 2019).

Bantuan zakat dalam program pendidikan di Perak juga mengambilkira daripada beberapa aspek. Penentuan ini terhad kepada jenis skim dan juga bergantung kepada penentuan kadar had kifayah sebagaimana yang telah digariskan oleh MAIAMPk. Ini sebagaimana dapat dilihat dalam Rajah 6 iaitu Skim Bantuan Zakat Bagi Program Pendidikan di Perak.

Jadual 4: Skim Bantuan Zakat Bagi Program Pendidikan di Perak.

BIL	SKIM BANTUAN	GOLONGAN
1	Bantuan Am Pelajaran	Fakir, Miskin dan Fisabilillah
2	Bantuan Persekolahan	Fakir dan Miskin
3	Skim Biasiswa Pelajaran Baitulmal	Fakir dan Miskin
4	Sewa kelas Fardhu 'Ain Saudara Kita	Muallaf
5	Tambang Perjalanan Pergi Belajar Luar Negara	Ibnu Sabil
6	Tambang Perjalanan Balik Belajar Luar Negara	Ibnu Sabil
7	Per-kapita Sekolah Agama Rakyat	Fisabilillah
8	Per-kapita Sekolah Latihan Wanita	Fisabilillah
9	Bantuan KUISAS-Pelajar Luar Negara	Fisabilillah
10	Dermasiswa Dalam Negara	Fisabilillah
11	Dermasiswa Luar Negara	Fisabilillah

AGIHAN ZAKAT PENDIDIKAN BERDASARKAN PROGRAM PEMBANGUNAN

Pendidikan merupakan nadi terhadap kelangsungan sesuatu umat. Matlamat pendidikan antara lainnya membentuk dan menyediakan modal insan yang mampu memikul bertanggungjawab dan mendukung nilai-nilai jihad yang dianjurkan Islam. Pendidikan Islam ialah satu proses latihan akal, jasmani, rohani, ijtimaiah (kemasyarakatan) dan akhlaqiah (akhlak) manusia bersumberkan al-Qur'an dan al-Sunnah bagi melahirkan manusia yang benar-benar menghayati prinsip Islam, Iman dan Ihsan.

Konsep pendidikan Islam berkonsepkan pendidikan rabbani (ketuhanan) yang bersumberkan bimbingan Ilahi. Pendidikan Islam melahirkan manusia yang beriman, berakhlak terpuji dan bertanggungjawab pada diri, keluarga dan masyarakat demi mencapai kebahagiaan hakiki berpandukan wahyu daripada Allah SWT. Malah, Rasulullah SAW telah memperkenalkan konsep pendidikan seumur hidup, belajar dan mencari ilmu sepanjang hayat tanpa membezakan lelaki dengan wanita.
Berikut adalah jumlah agihan zakat berdasarkan Program Pembangunan dan agihan berdasarkan Program Pembangunan Pendidikan dari tahun 2019 sehingga tahun 2021.

Jadual 5: Jadual Agihan Berdasarkan Program Pembangunan di Perak.

TAHUN	JUMLAH AGIHAN BERDASARKANPROGRAM PEMBANGUNAN (RM)
2019	148,667,706
2020	142,346,018
2021	134,493,149

Jadual 6: Jadual Agihan Berdasarkan Program Pembangunan Pendidikan di Perak.

TAHUN	JUMLAH AGIHAN BERDASARKAN PROGRAM PEMBANGUNAN PENDIDIKAN (RM)
2019	39,083,551
2020	29,697,149
2021	29,121,071

Jumlah agihan zakat Pendidikan bagi tahun 2019-2020 di bawah pengagihan fisabilillah, skim yang paling mendapat sambutan ialah Skim Bantuan Am Pelajaran untuk kemasukan tahun pertama institusi pengajian tinggi (IPT). Bagaimanapun, skim ini juga mencatatkan penurunan pada tahun 2020. Sebanyak RM6.01 juta (2019: RM6.09 juta) telah disalurkan pada tahun 2020 dimanfaatkan oleh 8,654 orang (2019: 10,212 orang) pelajar, menurun 15.26% berbanding bilangan direkodkan tahun 2019.

Selain itu, bantuan dermasiswa kepada pelajarpelajar dalam dan luar negara masih diteruskan tetapi jumlah pembiayaannya turut berkurangan daripada RM11.47 juta tahun 2019 kepada RM8.4 juta tahun 2020, menyusut 26.47%, disebabkan bilangan pelajar berkurang daripada 2,751 orang pada tahun 2019 kepada 2,226 orang pada tahun 2020, disebabkan sekatan penghantaran pelajar melanjutkan pengajian ke luar negara khususnya negara-negara timur tengah.

Manakala, perbandingan pengagihan zakat pendidikan bagi tahun 2020-2021 di bawah pengagihan fisabilillah, skim yang paling mendapat sambutan ialah Skim Bantuan Am Pelajaran untuk kemasukan tahun pertama institusi pengajian tinggi (IPT). Bagaimanapun, skim ini juga mencatatkan penurunan pada tahun 2021. Sebanyak RM6.01 juta (2020: RM6.09 juta) telah disalurkan pada tahun 2021 dimanfaatkan oleh 7,215 orang (2020: 8,654 orang) pelajar, menurun 16.63% berbanding bilangan direkodkan tahun 2020.

Selain itu, bantuan dermasiswa kepada pelajar-pelajar dalam dan luar negara masih diteruskan tetapi jumlah pembiayaannya turut berkurangan daripada RM11.47 juta tahun 2020 kepada RM8.4 juta tahun 2021, menyusut 18.46%, disebabkan bilangan pelajar berkurang daripada 2,226 orang pada tahun 2020 kepada 1,815 orang pada tahun 2021, disebabkan sekatan penghantaran pelajar melanjutkan pengajian ke luar negara khususnya negara-negara timur tengah.

PENUTUP

Berdasarkan kajian yang telah dijalankan oleh penyelidik, penyelidik mendapati bahawa institusi zakat di Malaysia memainkan peranan yang sangat penting dalam pembangunan pendidikan anak-anak golongan asnaf zakat iaitu melalui skim dan bantuan pendidikan yang telah diberikan. Ini dapat dilihat sebagaimana pengurusan zakat dari sudut pungutan dan agihan zakat di negeri Perak. Institusi zakat di Malaysia terutamanya di negeri Perak juga telah berusaha keras dalam melaksanakan aktiviti dan program pembangunan pendidikan kepada golongan asnaf zakat dan usaha yang berterusan ini seharusnya mendapat pujian daripada semua pihak.

Maka, golongan asnaf juga seharusnya memanfaatkan skim dan bentuk bantuan yang telah ditawarkan supaya dapat membantu meringankan beban mereka dalam membayar yuran persekolahan dan pengajian di institusi pengajian tinggi. Diharapkan bahawa dengan adanya skim dan bantuan pendidikan yang telah diberikan oleh institusi zakat di Malaysia dapat menggalakkan golongan asnaf supaya mementingkan pendidikan dan ilmu pengetahuan sebagaimana yang digalakkan dalam Islam iaitu menuntut ilmu adalah satu kewajipan kepada semua umat Islam. Dengan usaha seperti ini, ia seharusnya dapat menaikkan lagi martabat golongan asnaf, memperbaiki taraf hidup golongan asnaf, melahirkan lebih banyak lagi pelajar asnaf yang berjaya di dalam dan luar negara dan seterusnya menjadikan Malaysia sebagai sebuah negara yang kurang masalah dalam keciciran pelajaran.

Usaha Bahagian Zakat MAIAMPk ini dilihat telah menampakkan hasil apabila bilangan anak- anak fakir dan miskin yang mendapat keputusan cemerlang dalam peperiksaan meningkat dari tahun ke tahun. Ia memberikan gambaran bahawa kemiskinan bukan lagi menjadi penghalang untuk golongan asnaf fakir dan miskin ini untuk melanjutkan pelajaran ke peringkat yang lebih tinggi. Kejayaan anak-anak asnaf fakir dan miskin ini menjadi kebanggaan kepada Bahagian Zakat MAIAMPk serta pembayar zakat seterusnya mereka menjadi contoh kepada anak asnaf yang lain dalam membuktikan bahawa dana zakat dapat melahirkan lebih ramai lagi anak-anak asnaf yang berjaya dan cemerlang dalam pendidikan.

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ENHANCING STUDENTS' UNDERSTANDING OF THE PARTS OFSPEECH THROUGH A CARD GAME

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ABSTRACT

Mastering grammar is considered difficult and confusing by many ESL learners, which affects their comprehension of the four macro-skills in the English language: speaking, writing, reading, and listening. This paper examines factors that hinder students' progress in learning grammar and proposes the use of acard game called *SpeechDetective* as a tool to enhance students' understanding of parts of speech—the foundation of English grammar. It also reviews literature on the importance on having strong understanding of grammar as well as how game-based learning brought positive impacts on students' grammar proficiency. The methodology employs a qualitative method approach through observation on students from Kolej Poly-Tech MARA Alor Setar. The findings indicate the use of game-based approach

which is *SpeechDetective* can enhance students' understanding of the parts of speech.

Keywords: *Grammar; Parts of speech; Card game; SpeechDetective*

1.0 INTRODUCTION

Malaysian students are formally introduced to English as a second language from the age of six, marking the beginning of their journey toward acquiring proficiency in the language. English is given significantimportance in the national curriculum and remains a core subject throughout their academic life. From kindergarten through primary and secondary education, students are required to engage with English consistently, as it is considered one of the most crucial subjects for their overall academic development.

When students advance to higher education institutions, English continues to play a crucial role. It is notonly taught as a compulsory subject, but this requirement is also enforced by the Ministry of Higher Education to ensure that students achieve a certain level of proficiency necessary for academic success in a globalized world. The English language continued to be the official language alongside Malay until 1967, a decade after the country's independence from British rule (Omar, 1992). This focus on English in tertiary education further highlights the language's importance in shaping students' communication skills, critical thinking, and ability to engage with a broad spectrum of academic content. To emphasize how important English language is, Hashim et al. (2019) stated that Malaysia has integrated the Common European Framework of Reference for Language (CEFR) into primary and secondary schools and the new curriculum required young ESL learners to improve English proficiency. Although English is given significant importance in the Malaysian education system, with students being exposed to the language from an early age and continuing through higher education, there are majority of Malaysian students still face challenges in acquiring fluency in English. Despite years of formal instruction, many students remain at a low level of proficiency, struggling with various aspects of the language, including speaking, writing, and comprehension. Globally, grammar challenges are common for ESL and EFL learners, mainly due to the differences between the grammatical structures of their native languages and those of English (Rizqon and Rohmah, 2023).

Awing and Nasri (2023) claimed traditional grammar teaching often uses repetitive exercises, memorization, and drills. These activities can be boring and uninteresting for students. They may not feel engaged or excited about learning grammar this way. Students also have to understand language rules in detail. They must be very careful when putting sentences together, making sure to follow all the rules correctly. This can make learning grammar feel like a difficult and tedious task for many students. Some of the factors that have hindered many ESL learners in mastering grammar are largely due to traditional teaching methods that are heavily teacher-centered, emphasizing direct instruction and rote memorization. This ongoing issue highlights the need for more effective teaching strategies and methodologies to improve English language fluency across the student population.

At Kolej Poly-Tech MARA Alor Setar (KPTMAS), students are required to take English courses for two semesters, with the fundamental elements of parts of speech introduced in the first semester. By introducing parts of speech early, the institution aims to build a strong grammatical foundation, which can help students improve their language skills gradually and confidently over the course of their studies. This approach is designed to cater to the diverse psychographic and demographic backgrounds of the students, many of whom come from various regions and educational environments where English proficiency levels vary significantly. From psychological views, some students may feel anxious or disengaged due to past struggles with language learning, making it essential to start with foundational grammar concepts such as parts of speech. Dauba and Jullanda (2024) emphasized that language anxiety is a significant barrier in language learning, often affecting students' confidence and willingness to actively participate in activities. While from demographical views, students from rural areas or lower- income households may have had limited exposure to English in their daily lives, further necessitating a structured, step-by-step introduction to grammar that helps bridge the language gap. This argument is supported when it was discovered that some students only got the chance to use English during English lessons in school as their environment forces them to use their mother tongue in almost all occasions (Wong and Yunus, 2021).

To address this challenge, game-based learning has emerged as a promising alternative. This paper proposes a novel card game concept, *SpeechDetective*, designed to teach parts of speech in an interactive and engaging way. The goal of the game is to help students internalize grammatical rules through active learning, where they apply their knowledge in context, making learning more fun and effective. Yaacob and Yunus (2019) claimed integrating games into language lessons promotes higher- order learning and critical thinking skills, which are essential for students as they prepare to become future professionals. The playful nature of the card game can provide a stress relief to students when learning grammar that is not by memorizing and drilling. This will help students to absorb and understand the concepts of parts of speech. When card game is played repeatedly, this will reinforce learning without the tedium of drills which means the repetitive and monotonous style of grammar learning. According to Lukas et al. (2020) the modern curriculum must incorporate strategies to capture students' attention, keep them engaged, and foster critical and creative thinking and further proposed one effective solution is through the use of a game-based learning approach. The more frequently students engage in these games, the more effectively they will recognize and use words, thus leading to improvements in both vocabulary and grammar.

In addition to that, *SpeechDetective* stands out as an innovative educational tool with several key strengths. One of its primary advantages is its ability to engage students through gamification, transforming traditional grammar lessons into a fun, interactive experience. This approach keeps learners motivated and actively involved, making grammar practice far more enjoyable than conventional textbook methods. Moreover, *SpeechDetective* addresses a common challenge among modern students which is lack of interest in traditional learning formats. The use of the *SpeechDetective* card game could potentially transform grammar instruction by creating a playful and competitive environment that motivates students to engage with the material actively and finally enhance students' understanding of the parts of speech.

2.0 LITERATURE REVIEW

A good grasp of grammar is crucial in students' education and future careers as those who possess fluency in all elements of English skills are deemed to be successful in academic and professional settings. Wong and Yunus (2021) claimed that mastering English is crucial for enhancing one's chances of gaining admission to prestigious universities and securing more job opportunities in the global job market. However, grasping grammar rules can be difficult for ESL learners due to the intricate nature of English grammar. Zakaria et al. (2022) mentioned that the complexity of English grammar can pose a significant challenge, particularly for ESL learners. When students struggle with poor grammar, this will affect their performances in written and spoken skills. According to Awing and Nasri (2023), "by mastering grammar, students can improve their reading comprehension, writing skills, and oral communication, thus improving their overall language proficiency".

In order to show progress in grammar, students need to have a solid understanding of parts of speech as they are the foundation or basis to grammar. When students are not able to acquire a strong understanding of parts of speech, several negative consequences will occur such as, producing grammatical errors in writing, unclear or ambiguous communication, and confusion in deciphering instructions or written materials. According to Prayuda et al. (2023) based on their observations in assessing students' mastery of parts of speech, it was surprisingly found that some students misidentified nouns as adjectives, struggled with unfamiliar words, confused verbs with nouns, and were unable to differentiate between prepositions and adverbs.

To address the issues, one effective learning approach that is deemed to be effective is game- based learning, where instructors use games like card games in English lessons to address the challenges of traditional teaching methods (Yaacob and Yunus, 2019). When games are integrated into the classroom, students tend to be more enthusiastic, as the learning environment becomes non-threatening and stress- free. Games offer students the chance to learn in a fun and relaxed manner. Adipat et al. (2021) claimed games should be designed to allow students to repeat cycles within the game without losing interest. A well-designed educational game should encourage positive behaviours during these repetitive phases by fostering specific emotional and cognitive responses. This can be achieved through engaging interactions and feedback within the game. Adipat et al. (2021) also mentioned "students who play educational games when compared to students who do not play such games, better educational gains in various subjects, including in regard to understanding the English language." Sami (2021) agreed that the repetitive nature of game-based strategies makes it easier for students to learn and understand language. In addition to that, using games motivates learners and fosters collaboration and healthy competition among students, creating a positive learning environment. Sami (2021) also believed that game-based strategies are more effective and productive than traditional methods for teaching grammar. They give learners the chance to take on various roles, such as thinkers, problem- solvers, and decision-makers, during grammar lessons. These roles help students learn, grasp, and apply English grammar in different contexts, allowing them to use the language accurately and fluently.

According to the experimental study that had been conducted by Vijayarajoo and Jani (2019), it was reported that games like the *Monster Back to School* board game improved learners' understanding of grammar, particularly the parts of speech. In an interview conducted with 11 students after playing the game, most of them reported that it boosted their critical thinking, enhanced theirgrammar knowledge, and improved their ability to identify parts of speech. Additionally, they preferredthe student-centered approach of the game, as it allowed them to communicate more comfortably with their peers in a less formal classroom setting, unlike traditional teacher-centered methods that limited peer interaction. Hong (2021) supported this by claiming that using grammar games makes learning grammar more meaningful, moving away from rote memorization and repetitive exercises, which provesbeneficial for both teachers and students.

Furthermore, Zakaria et al. (2022) from the research findings on the use of *Jester*, a card game, revealed that students had a positive attitude toward it. They enjoyed playing the game and appreciated the idea oflearning grammar through a game-based approach. While engaged in gameplay, they became so absorbed that they didn't even realize they were learning. Based on the previous studies that are stated in the literature review, it can be summed up that incorporating games in learning grammar are found to be effective and this can also be supported by Hong (2021); games are the most enjoyable and popular wayto learn and practice grammar, as they bring fun, excitement, and interaction, allowing learners to easilygrasp grammar in a relaxed atmosphere while fostering a positive attitude toward learning foreign languages.

3.0 METHODOLOGY

3.1 Research Design

This study adopted a qualitative method approach where 3 observations were conducted during 3 events of English Day that were held on weekly basis at Kolej Poly-Tech MARA Alor Setar. The total 9 respondents who were among the students of Kolej Poly-Tech MARA Alor Setar were divided into 3 members for each session of observations. All these 9 respondents were from semester 1 and had scored below C in English for their Malaysian Certificate of Education (SPM). During the observations, the respondents first were highlighted on the elements of the parts of speech, then proceeded to the rules on how to play *SpeechDetective.* During the game, the respondents were observed to see their engagement and responses to learning the parts of speech. The observations were aimed at evaluating how effective *SpeechDetective* is in supporting their grammar learning.

3.2 Elements of *SpeechDetective*

3.2.1 Product Function

SpeechDetective serves several purposes, with its main focus on helping players enhance their grammar skills, particularly by identifying parts of speech, through an interactive and engaging format. The game challenges players to recognize the type of speech based on the card drawn, with the correct answer provided on the back of the card. One of the key strengths of *SpeechDetective* is its versatility, as it can be played in different settings and adjusted to suit individual or group play. The game includes competitive elements, such as points and online leaderboards, which motivate players to sharpen their grammar skills while fostering a healthy sense of competition. *SpeechDetective* also works well as a casual pastime, offering both educational value and entertainment.

3.2.2 Product Specifications

SpeechDetective comes with a standard set of cards, each measuring approximately 10x7 cm, and featuring different parts of speech, such as nouns, verbs, and adjectives. Each card includes examples of the parts of speech, with the words used in a sentence. On the back of each card, there is a QR code that, when scanned, provides access to detailed notes on all parts of speech, along with examples and quizzes designed to further enhance learning. The package is made of durable paperboard, measuring 10x10 cm with a height of 5 cm, and is coated with recycled laminated plastic for a glossy finish, making it easy to carry around.

3.2.3 Material Used in Product

The materials used in *SpeechDetective* are carefully selected to ensure both durability and environmental sustainability. The package is crafted from recycled paperboard and finished with laminated recycled plastic for a glossy appearance. The cards themselves are also made from repurposed paperboard to minimize waste. These materials are chosen not only for their strength and visual appeal but also to reflect a commitment to sustainability,

aligning with contemporary educational values.

Figure 1: SpeechDetective Card Game

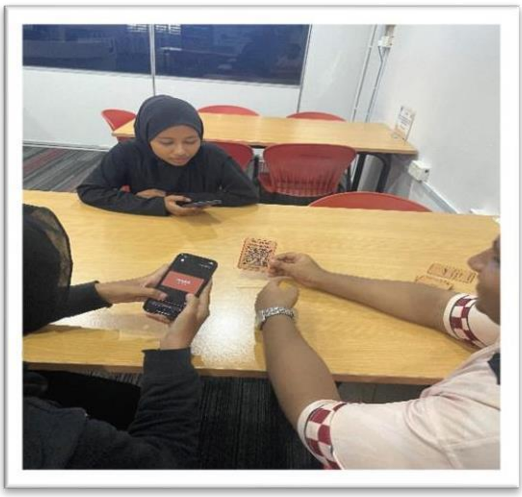

Figure 2 & 3: Observation on the use of *SpeechDetective*

4.0 RESULTS AND DISCUSSION

Based on the observations conducted during the 3 events of English Day at Kolej Poly-Tech MARA AlorSetar, several findings emerged regarding the effectiveness of *SpeechDetective* in supporting grammar learning, particularly in understanding the parts of speech. These findings can be categorized into severalkey areas:

4.1.1. Development of Positive Attitudes Towards Grammar Learning

The competitive nature of *SpeechDetective* appeared to encourage a shift in the students' attitudes towards grammar learning. Initially, some respondents appeared anxious or uninterested, likely due to their past struggles with English. However, as the game progressed, the respondents demonstrated growing enthusiasm. The opportunity to participate in a game, rather than a traditional lecture or written exercise, seemed to alleviate the usual stress or anxiety that they associated with learning grammar. The respondents also expressed enjoyment in the process, which was manifested in their willingness to ask questions and seek clarification from peers and instructors. This active approach to learning is a positive indicator, as it suggests that the respondents were not merely memorizing grammar rules but were genuinely invested in understanding the material.

4.1.2. Peer Interaction and Collaborative Learnings

The game-based approach allowed for peer-to-peer interactions. The respondents, who were divided into groups of three, collaborated closely during the game. This structure fostered a cooperative learning environment, where respondents could rely on each other for support and clarification. It was observed that the respondents who had a stronger grasp of certain parts of speech took on informal leadership roleswithin their groups, assisting their peers who were struggling. This type of social learning has encouragedthe respondents to engage with the material and also build their confidence in using the language. By explaining concepts to others or asking for help, the respondents reinforced their own understanding and created a more comprehensive learning environment, where mistakes were seen as part of the learning process rather than as failures.

4.1.3. Improved Retention of Grammar Concepts

One of the most encouraging findings from the observations was the improvement in the respondents' ability to retain and apply grammar rules. The repetitive and hands-on nature of the game reinforced the parts of speech in a memorable way. The respondents were observed using the grammar elements they had learned in previous rounds of the game and applying them to new scenarios, indicating an ability to transfer their learning beyond a single session. Furthermore, the game encouraged the respondents to think critically about language usage, as they had to categorize words into different parts of speech and explain their reasoning. This process likely contributed to longer-term retention of the material, as the respondents were not simply memorizing rules but applying them in real-time, meaningful contexts.

4.1.4. Positive Behavioural Shifts

Another significant observation that was demonstrated by the respondents during the game-play was the shift in their behaviour toward learning English. Prior to the game, all 9 respondents; having scored below C in their SPM English exam, likely had a negative association with the subject. However, through the *SpeechDetective* game, they were able to engage with English in a non-threatening and enjoyable manner. By the end of the sessions, their negative behaviours such as reluctance to participate, hesitation to speak up, or fear of making mistakes were noticed to be reduced. Instead, the respondents displayed more confidence, were more willing to take risks in their language use, and appeared to be less afraid of making errors in front of their peers. This shift is an important outcome, as overcoming language anxiety is often a significant barrier for students struggling with a second language.

4.1.5. Feedback and Reflection

Post-game feedback from the respondents further reinforced the positive outcomes observed during the sessions. When asked about their experience with the game, the respondents expressed that *SpeechDetective* had made grammar learning more fun and accessible. They highlighted the game's structure as helpful in breaking down complex grammar concepts into more manageable pieces. They also appreciated the immediate feedback they received during the game, whether from peers or instructors, which helped them quickly correct misunderstandings.

5.0 CONCLUSION

The approaches used by ESL instructors to teach grammar, particularly parts of speech, require improvement, as traditional methods have proven ineffective. Studies show that when card games are introduced in classrooms, students become more engaged and motivated to learn and understand parts of speech. In addition to that, the *SpeechDetective* card game, has the potential to significantly enhance students' understanding of parts of speech. Its design aims to move away from the traditional, monotonous methods of grammar instruction and toward a more interactive, student-centered approach. By encouraging students to engage with the material in a playful and competitive way, the game could make learning grammar more appealing and effective.

The interactive nature of the game would allow students to experience grammar in action, applying their knowledge as they identify and use different parts of speech. The collaborative aspect of the game, where students work together or compete in small groups, also encourages peer learning, which could deepen their understanding of grammar concepts.

Moreover, the repetitive nature of the game, played across multiple rounds, would reinforce learning in a way that feels less tedious than traditional grammar drills. While traditional methods of grammar instruction, such as rote memorization and worksheets, often fail to engage students, game-based learning has been shown to increase motivation and retention.

The *SpeechDetective* card game also can provide students with an enjoyable learning experience that not only enhances their understanding of parts of speech but also contributes to their overall language proficiency. This creates a win-win situation because it makes learning grammar easier for both teachers and students as it can be frustrating for teachers to teach students who struggle to meet their goals, and this frustration affects students as well. When students find grammar difficult, they may lose interest, become discouraged, and start to dislike English. However, changing the learning environment can help improve this negative atmosphere. By using fun activities like games, teachers can create a more supportive and interactive classroom where students feel comfortable participating. This positive change can lead to better learning outcomes, as students become more motivated to engage with the material.

The findings from the observation sessions strongly suggest that *SpeechDetective* is an effective tool for improving students' understanding of grammar, particularly the parts of speech. The game- based format has proven to be successful in increasing engagement, promoting collaboration, and fostering positive attitudes toward grammar learning among students who had previously struggled with English. By integrating competition and fun into the learning process, *SpeechDetective* has motivated students to participate actively, reinforced their retention of grammar concepts, and reduced language- related anxiety. These findings indicate that such interactive approaches can play a significant role in supporting language learners, particularly those with lower academic performance, in their journey toward mastering English grammar. Overall, game-based learning such as *SpeechDetective* can transform the way grammar is taught in ESL classrooms and can positively enhance students' understanding of the parts of speech.

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Artificial Intelligence Adoption in the Small and Medium Enterprises (SMEs): Challenges and Recommendations

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ABSTRACT

The adoption of artificial intelligence (AI) in small and medium enterprises (SMEs) is increasingly recognized as a vital component for enhancing operational efficiency, customer engagement, and competitive advantage in a rapidly evolving digital landscape. This conceptual paper investigates the challenges SMEs face in adopting AI technologies, including lack of awareness, high implementation costs, resistance to change, insufficient technological skills, lack of digital strategy and the complexities of change management. Through a comprehensive review of existing literature, this study identifies key barriers to AI adoption and proposes actionable recommendations to facilitate the integration of AI within SMEs. The findings reveal that while SMEs can significantly benefit from AI such as improved decision-making and enhanced customer experiences but many remain hesitant to invest due to perceived complexities and resource limitations. The research highlights the importance of fostering a supportive organizational culture, investing in training programs, securing financial resources, collaboration with technology partners and incremental implementation to enable effective AI implementation. This study contributes to the understanding of AI adoption in SMEs by providing a framework that addresses specific challenges and recommendations. The implications extend beyond individual enterprises, as successful AI integration in SMEs can drive economic growth, job creation, and innovation at the community and national levels.

KEYWORDS: Artificial Intelligence, Small and Medium Enterprises, AI Adoption, Challenges, Recommendations.

1 INTRODUCTION

The integration of artificial intelligence (AI) into small and medium enterprises (SMEs) represents a transformative shift in the business landscape, with profound implications for operational efficiency, customer engagement, and overall competitiveness. As SMEs constitute a significant portion of the global economy, their ability to leverage AI technologies is crucial not only for their survival but also for the economic vitality of communities and nations. The importance of this topic is underscored by the increasing reliance on digital solutions in the wake of the COVID-19 pandemic, which has accelerated the need for SMEs to adapt to rapidly changing market conditions. However, a notable gap exists in understanding the specific barriers that hinder AI adoption among SMEs, particularly in terms of resourceallocation, technological expertise, and organizational culture (Rozman, 2023; Lu, Wijayaratna, Huang & Qiu, 2022).

In today's digital economy, the adoption of AI is viewed as a critical factor for enhancing business agility and resilience. SMEs that successfully implement AI technologies can streamline operations, reduce costs, and improve decision-making processes, thereby positioning themselves favourably against larger competitors (Lutfi, Alsyouf, Almaiah, Alrawad, Abdo, Al-Khasawneh, & Saad, M., 2022; Li, Peng, Liu, Di, Liu, Pei & Zhou, 2023). The societal implications are significant, as the success of SMEs contributes to job creation, innovation, and economic diversification. However, many SMEs still perceive AI as a complex and daunting challenge, leading to a reluctance toinvest in these technologies. This perception creates a gap in the discourse surrounding AI, where the focus often remains on large enterprises, leaving SMEs at a disadvantage in harnessing the benefits of AI (Lu et al., 2022).

2 LITERATURE REVIEW

Previous studies have explored various dimensions of AI adoption in SMEs, identifying both opportunities and challenges. For instance, research has shown that SMEs that implement AI can achieve substantial improvements in efficiency and customer engagement. However, barriers such as lack of technical expertise, high implementation costs, and concerns about data security continue to impede widespread adoption. Furthermore, studies have highlighted the importance of tailored training programs and resources to equip SMEs with the necessary skills to leverage AI effectively.

The influence of AI on the current business environment is particularly pronounced in the context of the post- pandemic recovery. SMEs that adopt AI technologies can better navigate uncertainties and adapt to changing consumer behaviours (Kim & Seo, 2023; Ridho, 2023). For instance, AI-driven analytics can provide insights into market trends, enabling SMEs to make informed strategic decisions. Furthermore, AI applications, such as chatbots and automated customer service systems, enhance customer interactions and satisfaction, which is vital for retaining clientele in a competitive market (Budiarto, Rahmawati, Prabowo, Djajanto, Widodo & Herawan, 2018; Crockett, Gerber, Latham, & Colyer, 2023). However, the disparity in AI adoption rates between SMEs and larger firms highlights the need for targeted support and resources to bridge this gap (Gladysz, 2023; Abdullah et al., 2018).

2.1 ARTIFICIAL INTELLIGENT

AI can be defined as “Systems that display intelligent behaviour by analysing their environment and taking actions with some degree of autonomy to achieve specific goals” (Sheikh, Prins, & Schnjrers, 2023). Meanwhile, Madan & Ashok (2022) defined AI as “a cluster of digital technologies that enable machines to learn and solve cognitive problems autonomously without human intervention”. Therefore, for this article, AI can be defined as an intelligent system that display behaviour by analysing their environment and taking actions with some degree of autonomy to achieve specificgoals comprise a cluster of digital technologies that enable machines to learn and solve cognitive problems autonomously without human intervention.

Artificial intelligence (AI) is a multifaceted domain that encompasses various definitions and interpretations, reflecting its complexity and the breadth of its applications. At its core, AI can be understood as the capability of machines and computer systems to perform tasks that typically require human intelligence. This includes functions such as reasoning, learning, problem-solving, perception, and language understanding (Liu, Shapira &Yue., 2021; Gode, 2023; Shabbir & Anwer, 2018). The definitions of AI vary significantly across different contexts, but they generally converge on the idea that AI systems are designed to simulate cognitive functions traditionally associated with human beings (Liu et al., 2021; Hassani Silva, Unger, TajMazinani, & Feely, 2020). One of the foundational aspects of AI is its reliance on advanced technologies, including machine learning, natural language processing, and robotics (Gode, 2023; Shabbir & Anwer, 2018). These technologies enable AI systems to analyse vast amounts of data, learn from experiences, and make autonomous decisions without explicit programming for every possible scenario (Shabbir & Anwer, 2018; Hassani et al., 2020). For instance, machine learning allows AI to improve its performance over time by identifying patterns and making predictions based on data inputs (Shabbir & Anwer, 2018; Hassani et al., 2020). This characteristic of self-improvement is a defining feature of AI, distinguishing it from traditional computational methods that require manual updates and interventions.

2.2 SMALL AND MEDIUM ENTERPRISES (SMEs)

Small and Medium Enterprises (SMEs) are defined variably across countries, but they generally refer to businesses with a limited number of employees and a certain threshold of revenue. According to the European Commission, SMEs are defined as enterprises with fewer than 250 employees, with small enterprises having fewer than 50 employees and medium-sized enterprises having fewer than 250 employees (Liu et al., 2021). In the United States, the Small Business Administration (SBA) defines SMEs based on industry-specific standards, often considering businesses with fewer than 500 employees as small (Gode, 2023).

SMEs are significant contributors to employment. In many countries, they account for a substantial portion of total employment. For instance, the OECD reports that SMEs represent approximately 70% of total employment in its member countries (Shabbir & Anwer, 2018). This job creation is essential for economic stability and growth, particularly in developing economies where large corporations may not have a significant presence. SMEs contribute to economic diversification by operating in various sectors, including manufacturing, services, and agriculture. This diversification helps reduce economic vulnerability and enhances resilience against economic shocks (Monett, Lewis, Porisson, Bach, Baldassarre, Granato & Winfield, 2020). By fostering a diverse business landscape, SMEs can stimulate local economiesand promote sustainable development.

Small and Medium Enterprises (SMEs) are a cornerstone of Malaysia's economy, contributing significantly to employment, innovation, and economic growth. Defined by the Malaysian government, SMEs are businesses with fewer than 250 employees and annual sales not exceeding RM50 million (approximately USD 12 million) (Tan, 2011). Theyaccount for 98.5% of all registered businesses in the country, underscoring their vital role in the economic landscape (Jaish, Murdipi, Razak, & Alwi, 2023).

SMEs in Malaysia contribute approximately 38.9% to the national Gross Domestic Product (GDP), amounting toRM552.3 billion in 2019, which reflects a notable increase from previous years (Jaish et al., 2023). This contribution isessential for fostering economic resilience and diversification, particularly in the face of global economic challenges. The sectors in which Malaysian SMEs operate are diverse, including manufacturing, services, agriculture, and information and communication technology (ICT) (Tan, 2011).

SMEs are significant job creators, providing employment to around 66% of the Malaysian workforce (Jaish et al., 2023). They are also pivotal in driving innovation, as they tend to be more agile and adaptable compared to larger corporations. Research indicates that SMEs are responsible for a substantial share of new product developments and technological advancements in Malaysia (Yuen & Ng, 2021). However, the global competitiveness of Malaysian SMEs in innovation has faced challenges, with a declining innovation index noted in recent years (Yuen & Ng, 2021).

2.3 THE ADOPTION OF AI IN THE SMEs

AI plays a pivotal role in reshaping the operational frameworks of SMEs. By automating routine tasks and providing data-driven insights, AI enables SMEs to allocate resources more effectively and focus on strategic growth initiatives (Dabbous, Barakat, & Sayegh, 2021). Moreover, AI can enhance the customer experience through personalized marketing and improved service delivery, which are essential for building brand loyalty and competitive advantage (Lutfi, 2022; He & Zhou, 2022). However, the successful integration of AI requires a cultural shift within organizations, emphasizing innovation and adaptability (Weber, 2023; Lemos, Ferreira, Zopounidis, Galariotis & Ferreira, 2022).
Several factors influence the adoption of AI technologies in SMEs, including organizational culture, leadership commitment, and access to financial resources. Research indicates that a supportive organizational culture that encourages experimentation and innovation is crucial for successful AI integration (Kaiyue, 2023). Additionally, the commitment of leadership to invest in AI initiatives significantly impacts the willingness of SMEs to embrace these technologies (Duan, Edwards, & Dwivedi, 2019; Dwivedi, Hughes, Ismagilova, Aarts, Coombs, Crick, & Williams, 2021). However, many SMEs face constraints that limit their ability to invest in AI, highlighting the need for external support and funding mechanisms (Tjoa & Guan, 2021; Brock & Wangenheim, 2020)

2.5 CHALLENGES OF THE AI ADOPTION IN SMEs

Previous literatures indicates that there are various challenges towards the AI adoption in the SMEs. Among the barriers and challenges are:

I. **Lack of Awareness:** Some of the SMEs are unaware and ignorant of the existence of AI and the AI capabilities in assisting their business. This is one of the most important barriers in the adoption of AI for their businesses (Rosa, Liliawati, Efendi, Ingalagi, Mutkekar, Kulkarni 2021).
II. **High Cost of Adoption**: The SMEs feel that the cost of adoption towards AI and other technologies which related to AI are high. As such, the SMEs are staying away from the adoption of AI (Andersson, Tabares, Mikalef & Parida 2024)
III. **Resistance to Change:** Most of the SMEs have the resistance towards change, they are in the comfort zones of doing the business in the old fashion way. They are afraid to change by adopting technology and AI in their business operations due to the fear of the unknown and uncertainties (Li, Ashraf, Saba Amin & Safdar, 2023).
IV. **Lack of Technological Skills:** The adoption of AI needs a certain form of skills such as data analysis and technological skill to professionally apply the AI; nevertheless, most of the SMEs are shortage in these skills due to lack of financial resources to employ human resources expert on technological skills (Rosa et al.,2021).
V. **Lack of digital strategy:** Some of the SMEs are lack of a digital strategy in implementing their digital strategy. Most of SMEs lack the plans and policies that support researching into technologies and AI for their operations (Hess, Matt, Benlian, & Wiesbock, 2016).

VI. **Nature and size of businesses:** Other challenging issue concerning the adoption of AI by SMEs is the concept that AI is for the big firms and Multinational Enterprise. As such, they believe their businesses are still small and in the infancy stage, thus no need for AI adoption (Rosa et al.,2021).

3 CONCLUSIONS

In conclusion, while the integration of AI into SMEs presents significant challenges, including the lack of awareness, resource limitations, resistance to change, lack of technological skill, lack of digital strategy and the complexities of change management, the potential benefits are compelling. SMEs that successfully navigate these challenges can leverage AI to enhance their operational capabilities and drive innovation, positioning themselves for sustained growth in a competitive landscape.

4. RECOMMENDATIONS

The following recommendations are proposed:

I. **Understanding AI Technologies**: Before implementing AI, SMEs should invest in understanding the various AI technologies available, including machine learning, natural language processing, and automation tools. Familiarity with these technologies will enable SMEs to identify which solutions best fit their operational needs**(**Lee & Tajudeen**,** 2020**;** Indrasari, 2024). For instance, conversational AI, such as chatbots, can enhance customer service, while AI-driven analytics can improve decision-making processes (Ridho, 2023; Sharma, Singh, Islam & Dhir**,** 2024).

II. **Training and Capacity Building**: To facilitate successful AI adoption, SMEs must prioritize training and capacity building for their workforce. This includes providing employees with the necessary skills to work alongside AI systems and understand their functionalities. Research indicates that the lack of knowledge and skills is a significant barrier to AI implementation in SMEs (Oldemeyer, 2024). Therefore, investing in training programs can empower employees and foster a culture of innovation (Drydakis, 2022; Lu et al., 2022). Utilizing government programs by taking advantage of government initiatives and grants that support technology adoption. such as the Malaysia Digital Economy Corporation (MDEC) and Majlis Amanah Rakyat (MARA) programs.

III. **Financial Support and Investment:** Access to finance is a critical challenge for SMEs looking to adopt AI technologies. Malaysian SMEs should explore various funding options, including government grants, venture capital, and partnerships with technology providers (Enshassi, 2024). Financial institutions can also play a role by offering tailored financial products that support AI investments (Enshassi, 2024). Furthermore, SMEs should consider the long-term return on investment (ROI) that AI can provide, which can justify initial expenditures (Haridasan, 2024).

IV. **Collaboration with Technology Partners:** Forming partnerships with technology providers, research institutions and local universities can facilitate the adoption of AI. Collaborations can provide SMEs with access to expertise, resources, and advanced technologies that may otherwise be unavailable (Enshassi, 2024). Engaging in industry networks and forums can also help SMEs stay updated on AI trends and best practices (Tominc, 2024).

V. **Incremental Implementation:** Rather than a complete overhaul of existing systems, SMEs should consider an incremental approach to AI adoption. Starting with pilot projects allows SMEs to test AI applications on a smaller scale, assess their effectiveness, and make necessary adjustments before full-scale implementation (Drydakis, 2022; Lu et al., 2022). This strategy minimizes risks and helps build confidence in AI technologies.

VI. **Continuous Evaluation and Adaptation:** Finally, SMEs should establish mechanisms for continuous evaluation of AI systems and their impact on business performance. Regular assessments can help identify areas for improvement and ensure that AI technologies remain aligned with business objectives (Rawashdeh, Bakhit, Abaalkhail, 2023; Oldemeyer, 2024). Adapting to changes in technology and market conditions will be crucialfor sustained success in AI adoption.

5 ACKNOWLEDGEMENTS

The researcher would like to acknowledge Universiti Poly-Tech Malaysia (UPTM) for providing their InternalGrant (KUPTM.DVCRI.RMC.15(51))

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Empowered by Apps: Gen Z's Insights on Digital Mutual Fund Platforms

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ABSTRACT

This study explores the investment perceptions and behaviours of Generation Z (Gen Z) in Aceh, Indonesia, focusing on their engagement with online mutual fund platforms. As mutual funds gain popularity among young investors due to their accessibility and diversification benefits, understanding the motivations and barriers faced by this demographic is crucial. Utilizing qualitative research methods with semi-structured interviews, the research examines participants' knowledge of mutual funds, familiarity with digital platforms, and factors influencing their investment intentions. The findings reveal a commendable level of understanding regarding mutual fund concepts and digital platforms, with 75% of respondents expressing a strong interest in investing through these applications. Key motivators include ease of use, perceived safety, and trustworthiness, while barriers such as lack of knowledge and capital persist. This study highlights the necessity for targeted educational initiatives to enhance financial literacy and promote greater engagement in mutual fund investments among Acehnese Gen Z, ultimately contributing to a more informed and active investment community.

KEYWORDS: mutual funds, Gen Z, investment, online platforms

1 INTRODUCTION

Investment is an activity in which capital is invested with the primary goal of generating profits (MNC Asset, 2024). Deposits, gold, real estate, stocks, and mutual funds are all options for investing. In fact, the investment landscape has evolved significantly in recent years, with mutual funds emerging as a popular choice among individual investors seeking to build wealth and achieve financial goals. Defined as pooled investment vehicles managed by professional fund managers, mutual funds offer diversification, liquidity, and ease of access to a wide range of asset classes (ICI, 2023). Mutual funds have received billions in inflows, owing to increased awareness of the value of financial literacy and investing opportunities. Furthermore, the availability of online platforms has enabled a broader population, especially younger investors, to participate in the market, further increasing interest in mutual funds (Dewi & Rahadi, 2020; Liviana & Munawaroh, 2022; Rinjani & Prehanto, 2021; Rusdin, 2021).

Decisions to invest in financial instruments begin with familiarity with the products involved. Indeed, investment awareness is essential from a young age. According to the "Insight and Future Trends of Investment in Indonesia" survey, 72% of the Indonesian population is aware of investment, particularly millennials and Gen Z (MNC Asset, 2024). Young investors, in particular, are interested in investing owing to the technological advancements that make it easier to purchase investment items (Prasarry et al., 2023; Ria, 2023; Yudikaswira, 2023).

Generation Z (Gen Z) refers to the demographic cohort born approximately between 1997 and 2012, making them currently aged around 12 to 27 years old (Morgan Stanley, 2019). This generation follows the Millennials and is characterized by a distinct set of traits shaped by their unique upbringing in a rapidly changing world. Sometimes referred to as "Zoomers," Gen Z is the youngest generation in the workforce who has a distinct set of ideals that separate them apart from millennials (Lexis Nexis, 2024). The significance of studying Gen Z in the context of investment cannot be overstated. As the first generation to grow up with the internet and digital world, Gen Z exhibits distinct financial behaviours and preferences that set them apart from their predecessors (Garg, 2024), relying heavily on technology and online platforms for their investment decisions. When this generation enters the workforce and accumulates disposable income, they are rapidly becoming a formidable force in the financial markets. With their unique values and priorities influencing investment trends and practices, their influence on market dynamics will only grow.

One notable tendency among digital natives is their growing interest in mutual funds as a viable investment option (Dugar & Madhavan, 2023). This enthusiasm is driven by several factors, including the minimum capital as well as the accessibility and diversification that mutual funds offer (Mandiri Investasi, 2024; Sunarsih et al., 2023). For many young investors, mutual funds present a way to invest in a diversified portfolio without the need for extensive market knowledge (Lauria, 2024) or substantial capital (Sunarsih et al., 2023). The rise of online mutual fund platforms with its robo-advisor features has further simplified the investment process, enabling Gen Z to enter the market with relative ease and confidence (Amalia & Subagyo, 2024; Isaia & Oggero, 2022).

In relation to this developing trend, numerous studies and surveys have shed light on Indonesian Gen Z's interest in mutual funds, revealing insights into their preferences, behaviours, and the factors influencing their investment decisions. Aubrey et al. identify key factors affecting the use of online mutual fund apps, noting that user interface, perceived ease of use, and behavioural intention positively influence actual usage, while perceived trust does not (Aubrey et al., 2022). Similarly, Amalia and Subagyo highlight that Gen Z's intention to use apps like Bibit is significantly mediated by their trust in robo-advisor features, which help them create suitable investment portfolios. Handoko emphasize perceived ease of use and trust as critical determinants for using mobile mutual fund applications, while perceived usefulness and security are less impactful (Handoko et al., 2021). Suryani identify critical factors influencing investment intentions among both Millennials and Gen Z, emphasizing knowledge of the capital market, self-motivation, social environment, and initial capital. They also note the importance of accessible information, transparency in investment applications, and the role of social media influencers in shaping investment interests. Social media influencers are particularly highlighted as significant drivers of Gen Z's engagement with investing (Suryani et al., 2022).

Other studies, such as Rahmi et al. find that financial literacy, motivation, and perceived ease of use significantly enhance Gen Z's interest in sharia mutual funds in Jabodetabek, while religiosity has no notable effect. These factors together account for 58.3% of the variance in investment interest, indicating that other influences remain significant (Rahmi et al., 2022). Additionally, Palesta and Paramita show that financial literacy—not technology or risk perception—drives mutual fund investment decisions among Gen Z in West Java (Palesta & Paramita, 2024). Khairunnisa and Ni'am further emphasize the role of knowledge and promotions in boosting investment interest among Gen Z, while noting that perceived risk does not significantly impact their investment decisions (Khairunnisa' & Ni'am, 2023). Meanwhile, Arniati finds that while Gen Z demonstrates strong investment intentions, their investment literacy is notably low (Arniati, 2021). This disparity may stem from the unique characteristics of Gen Z, which allows for high intentions despite inadequate knowledge. Furthermore, individuals from non-economic or business backgrounds exhibit even lower investment literacy, though their intentions remain similar to their peers.

Overall, the literature underscores that factors such as financial literacy, ease of use, trust, and promotional strategies play vital roles in shaping investment intentions and behaviours among younger investors. These insights are essential for understanding the evolving landscape of mutual fund investments and tailoring strategies to engage this demographic effectively.

Nevertheless, one notable similarity stems from the studies cited above: most of them were conducted on Gen Z living in the provinces located on the most populated island in Indonesia, namely Java Island. In fact, through a simple browse on Google Scholar, none of the studies assessing Acehnese Gen Z's intention to invest in mutual funds has shown up. Aceh is the westernmost province of Indonesia lying at the tip of Sumatra Island. This province has as big as 30,29% of Gen Z making up its provincial demography, followed by millennials at 26,29% (BPS Aceh, 2020). With this high proportion of potential investors, it is justifiable that Acehnese digital natives are a fitting population to study.

Accordingly, this paper aims to explore the insights gathered from Acehnese Gen Z regarding their engagement with online mutual fund platforms. By examining their knowledge, familiarity, and opinion on these platforms, we seek to uncover what motivates and hinders them from being mutual funds investors. Ultimately, this research will contribute to the existing literature and fill in the gaps in the case of Acehnese Gen Z.

2 METHOD

This study employs a qualitative research design to explore the insights regarding mutual funds investment among Gen Z in Aceh. Utilizing both surveys and semi-structured interviews allows for a comprehensive understanding of participants' knowledge and intentions. The target population for this research includes individuals from Generation Z, specifically those aged 18 to 25, who are either current investors in mutual funds or show an interest in investing.

Data collection will be done through interviews, to gain deeper insights into their investment knowledge and intention. The data will then be transcribed and analysed thematically. This process will involve: (1) familiarisation**:** reading through the data to gain an understanding of key themes, (2) coding: identifying and labelling segments of the data that correspond to relevant themes or categories, (3) theme development: grouping codes into broader themes that capture the essence of participants' experiences and perceptions, and (4) interpretation: drawing connections between themes and the research questions, considering how the findings relate to existing literature.

3 RESULTS AND DISCUSSION

This section will present the findings followed by discussion from the qualitative research conducted to explore the insights of Acehnese Gen Z in relation to mutual fund investments. The interviews focused on the following themes: knowledge on mutual funds investments, knowledge on digital mutual fund platforms, familiarity and opinion about the platforms, and intention as well as barrier to invest in those platforms.

3.1 Knowledge on Mutual Fund Investments

Mutual fund investment involves pooling money from multiple investors to create a collective investment portfolio managed by professional fund managers. Each investor buys shares in the mutual fund, and their contributions are combined to invest in a diversified selection of assets, such as stocks, bonds, or other securities (Aubrey et al., 2022). Key features of mutual fund investments include: (1) Diversification: By investing in a variety of securities, mutual funds help reduce risk compared to investing in individual stocks or bonds. (2) Professional Management: Fund managers use their expertise to make investment decisions and manage the portfolio, which can be beneficial for investors who may not have the time or knowledge to manage their own investments. (3) Liquidity: Most mutual funds allow investors to buy or sell their shares on a daily basis, making it easier to access funds when needed.

(4) Affordability: Many mutual funds have relatively low minimum investment requirements, making them accessible to a wide range of investors, and (5) Variety: There are numerous types of mutual funds available, including equity funds, bond funds, index funds, and balanced funds, allowing investors to choose based on their investment goals and risk tolerance (Mandiri Investasi, 2024).

Interview results for this theme proved that all participants had some knowledge regarding mutual funds investments, albeit in various depth. In fact, all of them were able to explain by incorporating technical terms such as ‘pooled investment/pooled money’ and ‘fund managers’, showcasing their familiarity with the concept.

Below are some examples (translated):
“… is a way to pool funds from investors community to be invested by fund managers in investment portfolio. It is easy to do by new investors because it’s easy and safe…” (PNF)
“Mutual funds are a collection of funds for investors to be invested by fund managers in money market, stocks, or bonds…” (NN)
“Mutual funds are an investment alternative for investors, especially small investors and those who do not have much time and expertise to calculate the risk of their investments. Mutual funds can also be said to be a vehicle used to collect funds from investors, which are the invested in investment portfolio by investment managers…” (RM)

3.2 Knowledge on Digital Mutual Fund Platforms

Digital mutual fund platforms are online services that allow investors to buy, sell, and manage mutual fund investments through digital interfaces (Amalia & Subagyo, 2024). These platforms have become increasingly popular due to their convenience, accessibility, and user-friendly features. Here is an overview of their key aspects, summarised from the websites of several platforms: (1)User-Friendly Interface: Most digital platforms offer intuitive designs that simplify the investment process, making it easier for users to navigate, understand, and execute transactions. (2) Online Account Management: Investors can create accounts, track their investments, view performance metrics, and access statements and documents all in one place. (3) Investment Options: Many digital platforms provide access to a wide range of mutual funds, including equity funds, debt funds, index funds, and sector-specific funds, allowing investors to build diversified portfolios. (4) Automated Transactions: Users can set up systematic investment plans (SIPs) to automate regular contributions, making it easier to invest consistently over time. (5) Research and Tools: Many platforms offer research tools, market analysis, and educational resources to help investors make informed decisions about their investments. (6) Lower Costs: Digital mutual fund platforms often have lower fees compared to traditional brokers due to reduced overhead costs, which can be beneficial for investors looking to maximize their returns. (7) Accessibility: Investors can access their accounts and make transactions from anywhere with an internet connection, using computers or mobile devices (Bibit.id, Ajaib.co.id, Bareksa.com).

Similar to knowledge on mutual funds, most of the respondents were able to show their comprehension about mutual funds apps. They were able to mention the three of the applications: Ajaib investasi, Bareksa, and Bibit. However, there was one respondent who admitted to not have any knowledges of the platforms and had never heard ofthe apps.
Some of the translated transcripts are presented below:
“…yes, I know about online mutual fund applications. With it, mutual fund investment can be done easily everywhere and anywhere… there are also many interesting features…” (NA)
“We have to make sure that the app we choose is legally supervised by OJK (Indonesian Financial Authority)…”
(NA)
“I know Bareksa, Bibit, and Ajaib…” (AD)

3.3 Familiarity and Opinion about the Platforms

In this section, the respondents described their familiarity with digital mutual fund investment platforms such as Bibit, Bareksa, and Ajaib Investasi. The results of the interview showed that around 25% of respondents had never heard of the said apps and were unfamiliar with them. 50% of them were able to explain the three apps well, and another 25% were familiar with only one or two of the apps.

Despite experiencing different familiarity with the apps, none of the respondents has negative opinion on them. Their take on the online mutual fund investment platforms were a combination of neutral, hopeful, and positive. As presented in the excerpt of the transcript:
'… I think those Apps will be helpful for small investors…" (NA)
"… I don't have negative opinion, I just haven't understood it yet…" (R)
" I think bibit is a very good investment app. It is real-time and has nice interface with minimal bugs…" (RA)

3.4 Intention and Barrier in Investment

Based on the literature reviews several factors are at play in encouraging potential investors to invest in mutual fund digital apps. Trust and perceived ease of use significantly impact investors' intention to use these platforms (Handoko et al., 2021) The robo-advisor feature, mediated by e-trust, plays a crucial role in Gen Z's investment intentions(Amalia & Subagyo, 2024). Factors such as perceived security, user interface, perceived usefulness, and attitude toward use positively influence the adoption of online mutual fund applications among millennials and Gen Z (Aubrey et al., 2022). Last but not least, financial literacy is among the most influential reasons for investment (Quetuaet al., 2023).

75% of the study participants expressed their interest in investing through digital mutual funds apps. This number correlates to their familiarity with the platforms. The remaining 25% was the one without any knowledge about the apps and another one already having other channels of investment. They cited ease of use, safety, and trustworthiness as their main motivations. Meanwhile, lack of knowledge as well as capital were found to be the biggest barriers.
"… *I have used Bibi and Ajaib as they are so easy to understand and operate…"* (DA)"…*I'm not interested in using them as I already have other way to invest…"* (RA)
"… *I'm so interested. If only I have some spare money*…" (PNF)

3.5 Discussion

The interview results reveal a promising level of knowledge and understanding among participants regarding mutual fund investments and the digital platforms available for managing these investments. Notably, all respondents demonstrated familiarity with key concepts related to mutual funds, such as "pooled investment" and "fund managers," suggesting that there is a foundational awareness of how these financial products operate. This insight aligns with previous studies indicating that increased financial literacy can lead to greater investment activity (Quetua et al., 2023). Participants articulated their understanding through technical terms, reflecting a degree of comfort with the subject matter, which is essential for engaging with more complex investment options.

When it comes to digital mutual fund platforms, participants were generally knowledgeable about several applications, including Ajaib, Bareksa, and Bibit. This recognition of specific platforms indicates a growing acceptance and integration of technology in the investment landscape. The diverse familiarity levels, with a quarter of respondents unfamiliar with these apps, highlight an area for potential outreach and education. This aligns with the findings from Amalia & Subagyo (2024), which emphasize the importance of making digital platforms accessible and user-friendly to attract a broader audience.

Despite variations in familiarity, the overall sentiment towards digital mutual fund platforms was positive, with no respondents expressing negative opinions. Instead, participants exhibited hopefulness and a willingness to engage, viewing these apps as beneficial tools for small investors. This is particularly important as it suggests an openness to adopting digital solutions, a trend that is critical for the evolution of investment practices among younger generations. As highlighted by Handoko et al. (2021), trust and perceived ease of use are pivotal factors influencing investment intentions, which resonates with the participants' experiences of these platforms as easy to navigate and beneficial.

The findings also illustrate a clear intention among 75% of respondents to invest through digital mutual fund apps, further corroborating their familiarity and positive views of the platforms. Ease of use, safety, and trustworthiness emerged as key motivating factors, reinforcing existing literature that suggests these elements significantly affect user engagement with digital investment tools (Aubrey et al., 2022). However, barriers such as lack of knowledge and insufficient capital were noted by some participants, pointing to areas where further education and support could enhance participation in digital investing.

In conclusion, while the results reflect a solid understanding and positive attitudes toward mutual fund investments and their digital platforms, there remains a need for continued education to address gaps in knowledge and to encourage wider adoption among those unfamiliar with these technologies. Providing resources that enhance financial literacy and clarify the benefits of digital platforms can help overcome existing barriers and empower more investors, particularly within the younger demographics. As this research indicates, addressing these factors could lead to a more informed and engaged investor community in the realm of mutual funds.

4 CONCLUSION

This qualitative research has provided valuable insights into the perceptions and understanding of mutual fund investments among Acehnese Gen Z participants. The findings indicate a commendable level of knowledge about mutual funds, with all respondents able to articulate core concepts and technical terminology related to these financial products. This foundational understanding is crucial as it suggests a readiness to engage with investment opportunities. Moreover, participants displayed familiarity with various digital mutual fund platforms, reflecting the growing integration of technology in investment practices. While the majority recognized and expressed positive sentiments towards platforms like Ajaib, Bareksa, and Bibit, a notable portion of respondents remained unfamiliar with these tools.
This underscores the need for targeted outreach and education to increase awareness and accessibility.

The research also highlights a significant interest in investing through digital platforms, with 75% of participants expressing a willingness to engage. Key motivators included ease of use, perceived safety, and trustworthiness, which align with existing literature on factors influencing investment behavior among younger generations. However, barriers such as lack of knowledge and insufficient capital were identified, pointing to areas where educational initiatives could be beneficial.

In summary, while there is a strong foundation of knowledge and a positive outlook towards mutual fund investments within this demographic, addressing educational gaps and enhancing financial literacy will be essential in fostering greater participation in digital investing. By equipping potential investors with the necessary tools and resources, it is possible to cultivate a more informed and active investor community among Acehnese Gen Z.Conclusions should state concisely the most important propositions of the paper as well as the author's views of the practical implications of the results.

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The Role and Implications of Digitalization on Management Accounting: Artificial Intelligence (AI) and Fintech among Malaysian SMEs

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ABSTRACT

This research explores the impact of digitalization on business model experimentation and its influence on management accounting within Malaysian SMEs. The primary aim is to assess whether digitalization adoption reshapes the role of management accounting, particularly in supporting business decision-making processes. Specifically, the study examines the effects of Artificial Intelligence (AI) and Fintech on management accounting, investigating how these technologies enhance decision-making efficacy. Additionally, the research evaluates the current level of adoption of digitalization among Malaysian SMEs, focusing on AI and Fintech integration. The findings are expected to provide insights into the transformative role of digitalization in management accountingpractices, offering implications for SMEs seeking to leverage technology for strategic financial management

KEYWORDS: Artificial Intelligence, Fintech, Management Accounting, Malaysian SMEs

1 INTRODUCTION

1.1 Background of the Study

Digitalization is transitioning to a digital business that uses digital technologies to modify a business model and generate new income and value-generating opportunities (Gartner, 2020). As a result, it has had an impact on all aspectsof business, including business models and supply chains, as well as support functions such as human resources and accounting. Digitalization encourages new forms of collaboration among organizations, suppliers, customers, and employees, which results in new product and service offers. Simultaneously, established companies face a problem as digitalization compels them to evaluate their current strategy and investigate new business opportunities (Moller et al.,2020). Automation and robotization of routine tasks, the introduction of business intelligence, and data analytics in thefinance function have all resulted from digitalization.

Since the late 1990s, when SMEs proved more resistant to the effects of the Asian Financial Crisis (AFC) than larger businesses, they have played an increasingly significant part in Malaysia's economy. The Malaysian economy relies on SMEs, which comprise 97.2% of all companies, generate 38.2% of GDP, and employ 7.3 million people. SMEs have a robust financial environment with governmental and private funding options. This has allowed Malaysian SMEs to access various economic sources to satisfy their needs at different phases of development (OECD, 2022). Garrison, Noreen, and Brewer (2018) define management accounting as "the provision of information to managers for use within the organization" (p.2). Management accounting, they claim, aids managers in three essential organisational activities: planning, controlling, and decision-making. Management accounting studies corporate operations and costs to generate internal financial reports, records, and accounts and helps managers' decision-making in accomplishing business goals, according to Bhimani et al. (2012). Thus, traditional management accounting supports external reporting and looks inward. Digitalization may affect management accounting. It may affect the organization's digital landscape, business models, management accounting, control, and controller role (Moller et al., 2020). This proposal defines digitalization and its effects on management accounting and control.

1.2 Problem Statement

Despite being the backbone of the Malaysian economy, SMEs face several challenges in using technology, preventing them from developing and competing. To remain competitive in the market, SMEs should adapt technology whenever possible. These changes force SMEs to alter their business framework, strategy, and culture to stay competitive in the age of electronic technology. Thus, ownership, increasing use of electronic systems such as AI and Fintech, and even impairment talking about digitalization is a major pattern that may better companies and SMEs are no exception.

In addition, as the primary source of information for business administration, management data processing must impact electronic technology to enhance its capacity to produce useful information for SME management. SMEs might improve their chances of survival over time by adopting practices such as appropriate operations data processing methods and appropriate links with file statistics within the use of these methods. SMEs' overall performance has been found to fail because of poor sales equipment management (Nurzafirah, 2022).

Furthermore, research on the impact of digitization on management construction methods needs a more comprehensive comprehension of their methodologies. Most books assess management human resources resources or even procedures employed by SMEs without considering how data statistics are used within all of those tools or strategies. However, to work successfully and efficiently, SMEs must rely on more than just human resource management procedures in applying digitalization; they must also have synthetic talents and price awareness. As a result, this research this research will be conducted to attain the following goals:

1. Analyze the relationship between digitalization and data management techniques.
2. The outcome of digitalization and control sales methods will be achieved solely through SMEs' syntheticability and performance.

2 LITERATURE REVIEW

2.1 Theory used

2.1.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) provides a framework for understanding user acceptance of technology, specifically highlighting two core components: perceived usefulness and perceived ease of use. Together, these factors predict an individual's likelihood of adopting a particular technology, which is crucial for enhancing business performance, especially among small and medium enterprises (SMEs). Recent studies confirm that digital finance integrated with TAM can enhance financial inclusion, improving SME performance by making finance tools more accessible and efficient. For instance, research demonstrates that digital financing facilitated through TAM supports financial inclusivity, especially in developing economies where SMEs face numerous financial and technological adoption barriers. By promoting low cost and secure digital solutions, TAM fosters an environment where businesses can access financial services more readily, increasing their operational efficiency and market competitiveness (Thathsarani & Jianguo, 2022)

2.1.2 Contingency Theory

Contingency theory posits that there is no one-size-fits-all approach to management, asserting that the most effective strategies depend on the alignment between specific organisational contexts and managerial actions. According to recent research, particularly within small and medium-sized enterprises (SMEs), applying digital accounting systems and adaptive responses to environmental factors—such as economic shifts triggered by COVID-19—exemplifies this alignment. Organizations thrive when they adjust their structures, technologies, and processes to fit unique contextual factors, emphasizing that flexibility is essential for resilience and performance improvement in a complex, evolving business environment (Lutfi et al., 2022). This approach to management highlights the importance of adaptability to maintain organizational effectiveness in diverse settings.

2.2 Management Accounting (MA)

Integrating and emphasizing both financial and non-financial information, MA can be viewed as accounting knowledge that adds value to SME management functions by integrating and highlighting both financial and non- financial information. As a result, management accounting is critical to supporting company tasks (Lavia Lopes & Hiebl, 2015). Reid and Smith (2002) are only two of the numerous scholars who have reported on the importance of management accounting expertise to managers. Management Accounting Practices (MAPs) are advocated as a means by which businesses can acquire access to financial and non-financial data that can be used to enhance their existing operations. Ahmad (2012) echoes this sentiment, writing that MAPs increase profits through sustained waste minimization and optimized use of available resources. In March 1998, the Financial and Management Accounting Committee (FMAC) and the International Federation of Accountants (IFAC) identified management accounting as a sector of organizational activity that has progressed through four stages (MIA, 2017). The four steps are cost determination and financial control, information for management planning and control, resource waste reduction in business operations, and value production through optimal resource utilization. As a result, management accounting practices (MAPs) are vital since the information provided to managers is relevant and valuable in ensuring a company's long-term viability in today's competitive global market (Sunarni, 2013). Thus, MAPs are critical in improving organizational performance and firm profitability.

2.3 Malaysian Small or Medium-sized Enterprise (SMEs)

An SME is a company with less than RM20 million in sales or fewer than 75 full-time employees in the services and other sectors (Julie, 2021). Malaysia's economy depends more on SMEs, which are seen as the backbone of the economy in both rich and developing countries. The Department of Statistics says that by 2020, SMEs will have made up 38.2% of Malaysia's GDP and 48.0% of the country's jobs (QI, 2022). Global business management and accounting researchers have investigated SMEs over the last few decades. This sector is critical to the economic growth of developing and established countries (Mitchell & Reid, 2000). Globally, SMEs account for 99% of the business population. Similarly, SMEs' presence is critical to most countries' economic development. As a result, this industry has emerged as one of the most intriguing themes for business and management accounting research (Azudin et al., 2018). Maps such as budgeting and traditional costing have been widely adopted by Malaysian SMEs in the industrial sector. A large number of SMEs have implemented MAPs, such as financial and non-financial measures, to aid in management decision- making (Nair, 2017). However, SMEs are unlikely to implement full MAPs in their businesses due to their small size. SMEs experience problems with business sustainability for similar reasons as large organizations, including globalization, digitalization, technology advancement, intensified market competition, management changes, and limited access to capital (Messner, 2016). Researchers argue that financial and non-financial data must be considered for a company's long-term viability and sustainability. Since MA integrates and highlights financial and non-financial information, it can be value-added accounting expertise for SMEs to enhance their managerial duties. Therefore, managerial accounting is crucial for facilitating business operations. 2.4 Artificial Intelligence (A

2.4 Artificial Intelligence (AI)

Management accounting is only one area where (AI) is opening up new possibilities for supporting management decisions. Artificial intelligence encompasses both novelties and well-established statistical methods, such as machine

learning and clustering (Sutton, Holt, & Arnold, 2016). Historically, professionals and programmers have created the rules and instructions for an "intelligent" or "expert" computer system to aid with and automate mundane operations (Brynjolfsson & Mcafee, 2017). On the other hand, machine learning and cognitive computing enable computers to learn automatically from data without being explicitly programmed. Machine learning employs a probabilistic framework to infer credible models that account for observable data (Ghahramani, 2015). Once the system has determined the most appropriate model, it can foretell future data. Machine learning increasingly resembles human intelligence as it develops and learns to capture implicit information, which is difficult to program. Measurement noise and model choice (e.g., linear regression or neural network) are obstacles to machine learning that can be solved by making the system more adaptable. AI has the potential to enhance the practical utility of standard management accounting techniques significantly.

2.5 Fintech

FinTech, which stands for "financial technology," is an emerging topic in the business world. FinTech is defined as "a cross-disciplinary subject that combines Finance, Technology Management, and Innovation Management" (Leong and Sung, 2018) so everyone can comprehend it. The definition can be expanded to include "any innovative ideas that improve financial service processes by proposing technology solutions for various business circumstances. These concepts may also result in new business models or even new companies. Understanding FinTech in the ways described above can also give you new ways to look at business models. Uber is a real-world example. Using the definition, Uber can be thought of as a FinTech business because it offers non-traditional transportation services (i.e., new ideas) by using technology (i.e., mobile apps) to make getting taxi services (financial services) easier. Uber gives "upfront pricing" in most cities, meaning the rider is told how much the ride will cost before requesting it (Leong and Sung, 2018).

3 METHODOLOGY

This conceptual paper adopts a literature review and theoretical analysis approach to investigate the role and implications of digitalization in management accounting, focusing on integrating Artificial Intelligence (AI) and Fintech among Malaysian SMEs. First, relevant academic articles, industry reports, and case studies published within the last five years were reviewed to capture contemporary findings and perspectives. Key databases such as JSTOR, ScienceDirect, and Google Scholar were used to locate peer-reviewed studies, with search terms including "digitalization in SMEs," "management accounting digital transformation," "AI in accounting," and "Fintech adoption in SMEs." Through this review, the paper synthesizes insights from existing theories, including the Technology Acceptance Model (TAM) and Contingency Theory, to understand how these frameworks explain digital technology adoption in management accounting. This theoretical approach aims to comprehensively understand the factors influencing digital technology integration and the associated implications for management accounting roles and decision-making processes. By synthesizing findings from multiple sources, this paper establishes a foundation for future empirical research to explore further and validate the theoretical propositions presented. This structure clarifies the paper's reliance on secondary data and theoretical analysis, making it suitable for a conceptual framework. Depending on your access and research preferences, you can adjust the databases or sources.

4 CONCLUSIONS

This conceptual paper has explored digitalization's critical role and implications on management accounting within Malaysian SMEs, particularly focusing on the contributions of Artificial Intelligence (AI) and Fintech. By synthesizing insights from contemporary literature, it is evident that adopting digital technologies significantly enhances business decision-making processes, allowing SMEs to respond more effectively to market dynamics. The Technology Acceptance Model (TAM) highlights the importance of perceived usefulness and ease of use in driving technology adoption. At the same time, Contingency Theory underscores the necessity for firms to adapt their management strategies to fit their unique circumstances. Despite the advancements in digital transformation, challenges still need to be addressed, particularly regarding the varying levels of adoption of digitalization among SMEs. Future research should focus on empirical studies that investigate the specific barriers to digitalization faced by different sectors within SMEs and the effectiveness of various digital tools. Moreover, examining the long-term impact of digitalization on management accounting practices and overall business performance will provide deeper insights into how SMEs can leverage technology for sustainable growth. As digital landscapes evolve, it is essential to keep abreast of emerging trends and technologies that could further influence management accounting practices (Lutfi et al., 2022; Thathsarani & Jianguo, 2022). This ongoing research is critical for policymakers and practitioners alike, as it will inform strategies to enhance digital literacy and foster a more inclusive environment for SME growth in the digital economy.

5 ACKNOWLEDGEMENTS

The authors would like to express a great acknowledgement of the funding from Kolej Poly-Tech MARA Alor
Setar.

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e ISBN 978-629-97432-3-1

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