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THE INTERNET OF THINGS AND ISLAMIC ESTATE PLANNING IN THE FORTH INDUSTRY REVOLUTION (4IR) IN MALAYSIA: ISSUES AND CHALLENGES

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Abstract : *The Fourth Industrial Revolution (4IR) has led to noteworthy transformations across multiple spheres of existence, encompassing the realm of inheritance management. Nevertheless, advancements in technology-driven approaches for handling Islamic estates are nascent. Recent research indicates that the adoption of digital technology for Islamic estate management was initiated around 2018, yet traditional manual procedures and documentation persist. The government has tried to introduce the Electronic Filing system (EFS) to harmonize information technology with procedural legal frameworks. Employing content analysis, this study examines prior research endeavors concerning the administration of Islamic inheritance estates. Classical and secondary sources were utilized for research purposes. At the same time, data from the official websites of five reputable institutions was scrutinized to acquire insights into the present trends in will and trust practices. The aspiration is for these trust institutions to pioneer novel approaches and inventive strategies that promote the integration of EFS in alignment with the 4IR. The government should adopt a multifaceted strategy to digitize administrative processes, encompassing measures such as enhancing legal frameworks, fostering research and innovation, bolstering workforce skills, and engaging the wider society. To meet the needs of the digitally proficient generation, estate administration should align with developing a comprehensive EFS. Implementing inheritance EFS by 2021 requires substantial changes in the legal and institutional framework, technological capabilities, human resource training, project management processes, financial resources, and societal awareness and acceptance. EFS is expected to overcome obstacles in inheritance estate administration and improve effectiveness and efficiency in the judicial process. This research delves into the difficulties encountered by trust institutions in Malaysia concerning managing Islamic estates in the context of the 4IR and how these challenges affect the Muslim community. The government's creation of an EFS and the progress made in information and communications technology has streamlined the shift from conventional to technologically-driven estate administration processes. As a result, there is an optimistic outlook for trust institutions to introduce novel approaches and innovative ideas that will motivate the community to adopt Islamic estate administration practices aligned with the principles of the 4IR.*

Keywords: *Internet of Things (IoT), Electronic Filing System, Role of IoT, Advantages*

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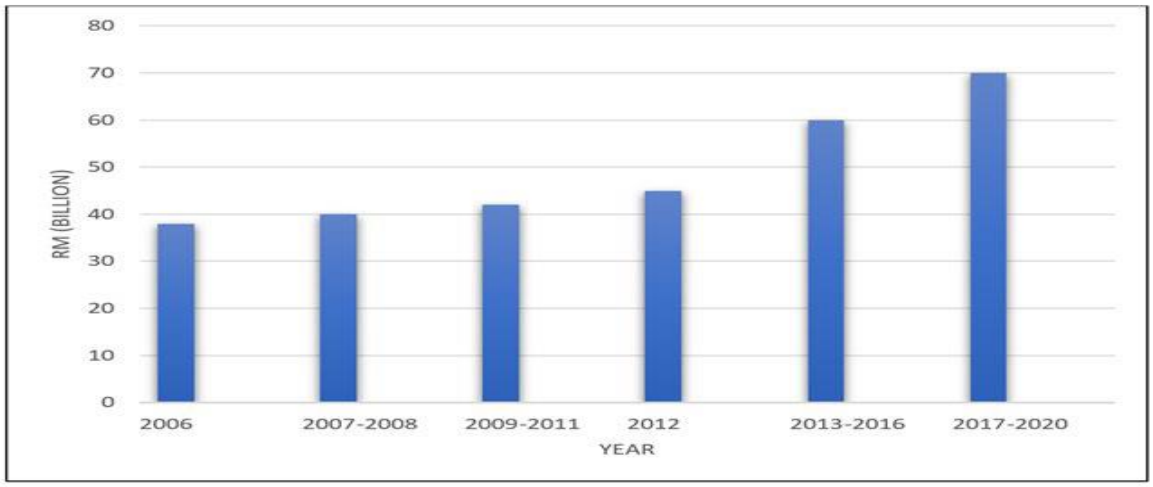
1.0 Introduction: Estate administration issues

The escalation of unclaimed assets due to delays in estate administration has emerged as a critical concern requiring urgent attention. The issue of dormant estates, properties left unclaimed by beneficiaries and still registered under the name of the deceased, has been extensively analyzed by scholars. However, identifying effective remedies has remained a challenging endeavor. The consistent annual surge in unclaimed funds is noteworthy, surmounting an astonishing 90 billion MYR in 2021 (Utusan Malaysia, 2021). Official records from Malaysia's Accountant General's Department demonstrate a significant rise in Unclaimed Money (WTD) between 2014 and 2019, varying from RM513 million to RM560 million (Accountant General's Department of Malaysia, 2021).

Furthermore, Datuk Ramli Mohd Nor, the Chairman of ARB, disclosed that as of September 2022, ARB holds frozen estates (movable assets) worth RM460 million. ARB functions as a custodian, safeguarding these assets until rightful heirs claim their inheritance (Berita Harian, 2022). The urgency of addressing property planning methods, including wills and trusts, is evident due to the growing Islamic estate issues. Approximately RM60 billion of Islamic estate remained undistributed since independence, which rose to RM70 billion in 2020. Ineffective administration, negligence by heirs, and incomplete information contribute to this dilemma. The Managing Director of Amanah Raya Berhad noted an increase in unclaimed funds from RM292 million in 2016 to RM418 million by November 2020 (MyMetro, 2020). Incomplete beneficiary information, particularly addresses and phone numbers compounds the issue. Figure 1 depicts the upward trajectory of unclaimed money or frozen estates from 2006 to 2020.

Figure 1.
The total number of unclaimed money or frozen estate from 2006 to 2020



Source: Noordin et al. (2016) and MyMetro (2020)

Numerous factors contribute to the emergence of the challenges above. These include a lack of understanding regarding the estate administration process, such as identifying rightful heirs according to Faraid principles. Additionally, confusion arises from differentiating between the

jurisdictions of Shariah and Civil Courts. Procrastination tendencies, time limitations, and financial constraints also play a role. Moreover, informal verbal property arrangements are common within certain segments of society, particularly in rural areas, leading to confusion and complications during the estate administration process. Furthermore, a prevalent misconception persists that a deceased individual's assets will be frozen and automatically transferred to ARB (Abd. Wahab et al., 2021).

Several causes that lead to the unwanted delay have been identified and clustered in the form of legal, economic, religious and social (Rashid, Hassan, & Yaakub, 2013). The causes of such delay can also be related to the variety of rules and complexity of procedures and the involvement of more than one body in estate administration. Thus, the process of estate administration is not straightforward. There are generally two stages; the first stage involves the process of obtaining the letters of representation from the administrative institutions, while the second phase covers the execution process, which involves the extraction of the deceased's asset from particular sources as well as the distribution of the asset in accordance with the law. Both stages involve dealings with third parties. While the nature of the first stage is more towards obtaining the authority to govern the deceased's estate, the second phase involves dealing with individuals or cooperates bodies such as the creditors as well as financial institutions, which hold the deceased's account once the authority is obtained.

Furthermore, there exists a segment of the Muslim population that continues to hold the belief that the Faraid Law holds the answer to all their concerns. In this context, a clash emerges between perception and actuality. From a perceptual standpoint, individuals adhering to this notion assume that with the implementation of the Faraid Law, the necessity for estate planning becomes redundant. However, the Faraid Law exclusively deals with the calculation of estate distribution, failing to encompass the broader aspects of estate management. Consequently, these individuals overlook strategic planning methods such as wills, Hibah, waqf, or trust instruments. A recent investigation by Abdullah et al. (2021) also demonstrates that the community's awareness and utilization of trust instruments remain notably deficient.

The escalating concern arises when the negative repercussions of this issue start to affect a country's economic landscape adversely. This pertains to unresolved property matters, exemplified by the situation surrounding Malay Reservation Areas (MRAs), such as the 101.02-acre Kampung Baru Kuala Lumpur. Consequently, the lands owned by Muslim Bumiputeras remain undeveloped, depriving property owners of potential benefits. Despite multiple governmental initiatives, a viable solution remains elusive. Applying the National Land Code (KTN) could facilitate development (Buang, S. 2020).

To mitigate this quandary, an alternative approach involving wills and trusts is proposed to circumvent wealth and property distribution complications for heirs (Zainol et al., 2019). These two mechanisms of Islamic estate planning share a common thread: appointing a trustee during one's lifetime to oversee the managed property and provide for the beneficiaries left behind. Shariah principles underline the importance of Islamic estate management and enumerate several fundamental values to be adhered to. These include trust, brotherhood, sincerity, truth, justice, wisdom, accountability, and incorporating science and technology (Hanafy & Sallam, 1988). The designated trustee must uphold honesty towards the entrusted property and diligently execute

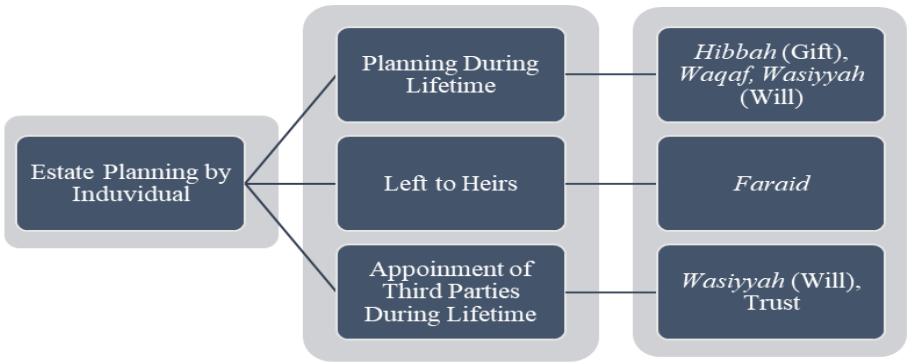
their duties. The execution of the trust must be rooted in sincerity, mutual assistance, and the essence of brotherhood. Concurrently, the allocated trust resources should be utilized judiciously for the betterment of the beneficiaries without breaching the entrusted responsibility. A trustee well-versed in the ethics of Islamic estate planning can foster harmonious human relationships, blessed by the grace of Allah (Ahmed, 2013).

1.1 Islamic Estate Planning (ETP)

Islamic estate planning finds its origins within the teachings of the Qur'an and its interpretations through hadith. The Qur'an, a sacred scripture with a history spanning 1400 years, has undergone adaptation to align with contemporary circumstances. In earlier periods predating Islam, women were unjustly denied their inheritance rights and were regarded as mere possessions. Inheritances were primarily designated for biological kin and adopted sons, occasionally allowing unrelated men to name each other as heirs through a special "alliance contract." The principles introduced by Islam transformed these concepts by underscoring the divine ownership of possessions and limiting human authority over wealth after death (Jaafar, 2016). According to this perspective, possessions are considered a trust from Allah and should be utilized following His intentions. Allah will scrutinize the utilization and origins of wealth on the Day of Judgment (Al-Jibali, 1999).

Islamic estate planning manages assets after death. The 'faraid' inheritance law is the prevailing framework. Many Muslims rely solely on 'faraid,' neglecting Qur'anic origins. 'Faraid' involves complex computations and distributions by Islamic jurisprudence (Abdul Rahman et al., 2018). Verses 11, 12, and 176 define beneficiaries' rights in Surah an-Nisa. E.g., verse 176: "When brothers and sisters exist, the male's share equals two females'." 'Faraid' ensures equitable asset distribution within Islamic principles (Samori et al., 2016). Understanding estate distribution is crucial for identifying beneficiaries. Muslims must grasp the importance of Islamic inheritance law and non-Islamic Will repercussions. Implementing these laws safeguards knowledge perpetuation—proficiency in faraid aids seamless execution. Familiarity includes entitlements, property categorization, and distribution. This prevents family conflicts triggered by disagreements. The goal is proficient Islamic estate planning, transcending superficial recognition to acknowledge its value beyond the law.

Figure 1: The Method of Estate Planning by Individual.



Sources: (Kamarudin, Mohd Hashim, Jamil, & Abdul Hadi, 2019)

As per the findings of Kamarudin et al. (2019), estate planning commonly involves a set of recommendations and tools that can be categorized into three distinct phases. For instance, the concept of Hibah (Gift) can be classified into two primary types: those with conditions and those without conditions. Nevertheless, as highlighted by Nor Muhamad (2017), any conditions imposed by the donor must align with the established hibah criteria to ensure the legal validity of the agreement. It has also been indicated that inappropriate condition criteria might transform the original hibah contract into a wassiyah contract. This transformation could occur when the donor's condition specifies the transfer of ownership posthumously. Furthermore, the estate planning toolkit encompasses instruments such as waqf (endowment), wassiyah (will), trust, and faraid.

1.2 Islamic Estate Planning (IEP) in Malaysia

The practice of Islamic estate planning in Malaysia has a rich history, originating with the establishment of the Department of Public Trustee and Official Administrator in 1921. This entity evolved into Amanah Raya Berhad (ARB) in 1995, underpinning the foundation of Islamic estate planning (IEP) (Smith, 2020). ARB, a distinguished trustee company wholly owned by the Malaysian Government, is a key player in this field. Its core focus is on innovative Legacy Management solutions, aligning with the concept advocated by ARB, which represents a renewed approach to estate planning that holds broad appeal.

Over its 90-year journey, ARB has emerged as a leader in the Legacy Management sector, firmly rooted in the Public Trust Corporation Act 1995 (Laws of Malaysia Act 532, 2008), a dedicated legal framework guiding its operations. As the sole Public Trustee in Malaysia, ARB offers comprehensive Legacy Management solutions through a holistic approach accessible to all.

In the broader context, the landscape of Islamic estate planning in Malaysia has changed, marked by the rise of private trustees and emerging businesses (Hassan et al., 2018). However, the sector's significance within Islamic finance has been somewhat diminished by its connection to wealth management in Islamic banking and takaful, causing its fundamental role in asset allocation to be disregarded. In contrast to mainstream Islamic finance, the real value of estate planning lies in its capacity to ensure a smooth distribution of assets following an individual's demise. Despite its crucial importance, Islamic estate planning (IEP) has frequently been relegated to a secondary position, attracting limited attention in conversations. To elucidate the notion, Islamic estate planning involves strategically apportioning assets and belongings to chosen beneficiaries in alignment with Islamic inheritance regulations or channelling them into charitable endeavours (Hassan et al., 2018). Essentially, IEP guarantees the proper dispensation of wealth while upholding Islamic principles.

Estate planning proves to be a multifaceted and intricate endeavour, necessitating well-thought-out strategies and reasonable remuneration. In response, certain private establishments have emerged, furnishing estate planning provisions within the legal framework outlined by the Trust Companies Act 1949 (Laws of Malaysia Act 532, 2008) and Companies Act 2016 (Laws of Malaysia Act 777, 2013). It's worth noting, however, that not all these entities are mandated to function as Trustee Companies within the estate planning sector. However, opting for such a status could yield more comprehensive solutions. In Malaysia's Islamic estate planning domain, a

spectrum of institutions exist, each offering a distinct range of services. Among these, some function as Trustee Companies, rendering all-encompassing services, while others concentrate solely on advisory roles, entrusting obligatory procedures to external Trustees. The subsequent enumeration delineates the categories of institutions engaged in Islamic estate planning.

Table 1:
Key Players in Islamic Estate Planning Industry.

No./Item	Institution Operational	Nature
1.	Amanah Raya Berhad	Public Trustee
2.	as-Salihin Trustee Berhad*	Private Trustee
3.	Wasiyyah Shoppe Berhad	Private Trustee
4.	MyAngkasa Amanah Berhad	Private Trustee
5.	Amanah Warisan Berhad	Private Trustee
6.	Selangor Islamic Religious Council	Religious Council
7.	Pacific Trustees Berhad*	Private Trustee
8.	Maybank Trustee Berhad*	Private Trustee
9.	CIMB Islamic Trustee Berhad*	Private Trustee
10.	RHB Trustee Berhad*	Private Trustee
11.	PB Trustee Services Berhad*	Private Trustee
12.	Affin Hwang Trustee Berhad*	Private Trustee

Sources: Association of Trusts Companies Malaysia, http://www.atcm.com.my accessed on 16th July 2019.

The institutions enumerated in Table 1 are key Islamic estate planning sector players. Furthermore, smaller entities actively promote products and services on behalf of the predominant industry players yet carry out these endeavours autonomously under their corporate identities. Upon closer examination of the listed establishments, a noteworthy trend emerges, wherein a majority of them are substantiated by substantial backing from prominent entities within the banking domain. This support is manifested in their establishment as subsidiary companies, a strategic move aimed at retaining their client base within the confines of their corporate group. To attain a comprehensive overview of the industry's structure and hierarchical divisions, along with an understanding of the entities operating within it, it is essential to acknowledge an additional pivotal facet: the administration and distribution of assets belonging to deceased Muslims. In Malaysia's current framework, the estate administration and settlement process is governed by civil law, which engenders substantial ramifications for estate planning strategies (Alma'amun, 2010).

In terms of implementation, the administration takes place after the settlor's demise, whereas the execution of the trust can transpire either during the settlor's lifetime or following their passing (Muhamad, 2012). Neglecting the management of assets from an early stage using these two mechanisms will indirectly affect both the property and society. Employing these two mechanisms for property inheritance arrangements can ensure the prosperity of the heirs. This is rooted in Islam's significant emphasis on the future well-being of the beneficiaries, aiming to prevent them from leading complex and imperfect lives (Rashid & Yaakub, 2010). Given the prevalent inclination towards procrastination and lackadaisical attitude in property planning

within the community, trust institutions must proactively introduce modern technology-driven facilities to motivate people to engage in property planning through wills and trusts during the era of 4IR.

To accomplish the study's objectives, an examination was carried out on five trust institutions. Among these, four are trust institutions established following the Companies Act 1965 (Act 125) and registered under the Trust Companies Act 1949 (Act 100), including entities such as Amanah Raya Berhad (ARB), as-Salihin Trustee Berhad, Wasiyyah Shoppe Berhad, and MyAngkasa Berhad. The fifth institution, the Islamic Religious Council (Selangor) (MAIN), operates as a corporate entity under Section 5(1) of the Administration of the Religion of Islam (State of Selangor) Enactment 2003. Representatives from Amanah Raya Berhad (ARB), as-Salihin Trustee Berhad, Wasiyyah Shoppe Berhad, and MyAngkasa Berhad were interviewed to corroborate the study's findings. Consequently, this research delves into the issues and obstacles key stakeholders face in Malaysia's trust industry while offering will and trust services as components of Islamic estate planning. The study aims to enhance methodical property planning among the Muslim populace, particularly in the context of the 4IR.

2.0 The Concept Of Will And Trust In Islamic Estate Planning

2.1 Will

Shariah principles govern Islamic inheritance laws and wills in Malaysia and are integral to the country's legal system. Malaysia has a dual legal system, with Islamic law (Shariah) applicable to Muslims concerning personal status, including inheritance and wills. The distribution of property and assets through wills is subject to Islamic guidelines, ensuring wealth is distributed fairly among heirs. The concept of a "will" in linguistic context traces its origins to the term "wassa," denoting the act of connecting or conveying matters about the deceased's affairs. Furthermore, a "will" encompasses the notions of agreements and inheritances bequeathed to individuals after the testator's demise. According to fuqaha' (Islamic jurists), a will constitutes the transfer of ownership of a residual asset following death through donation, encompassing both tangible assets and advantageous aspects (al-Zuhayli, 2006). Within the Islamic framework, a "will" is delineated as the voluntary bestowal of property ownership post-mortem, encompassing tangible possessions and property benefits (al-Zuhayli, 2010).

One of the primary sources of Islamic law in Malaysia is the Administration of Islamic Law (Federal Territories) Act 1993, which outlines the rules for the administration of Islamic law in the federal territories of Malaysia. This Act and other relevant legislation govern the creation and execution of Islamic wills. Islamic inheritance laws in Malaysia are rooted in the Quran and the Sunnah (the traditions and practices of the Prophet Muhammad). These laws aim to provide a just and equitable distribution of wealth among family members. The Quran specifies the shares of various heirs, and these guidelines are followed in the distribution of an estate.

The ruling of making an Islamic will was originally compulsory in light of the explanations in the Quran in Surah al-Baqarah: 180.

كُتِبَ عَلَيْكُمْ إِذَا حَضَرَ أَحَدَكُمُ ٱلْمَوْتُ إِن تَرَكَ خَيْرًا ٱلْوَصِيَّةُ لِلْوَٰلِدَيْنِ وَٱلْأَقْرَبِينَ بِٱلْمَعْرُوفِ ۖ حَقًّا عَلَى ٱلْمُتَّقِينَ

"It is decreed upon you that when death approaches, those of you who leave wealth shall bequeath it equitable to parents and kindred (according to Islamic law). This is a duty incumbent on those who are God-fearing."

This verse illustrates the division of an estate among various heirs, including children, parents, and spouses. Malaysian courts and legal authorities interpret these Quranic provisions to determine the distribution of assets following Shariah principles. When drafting an Islamic will in Malaysia, it is crucial to ensure that the will complies with Shariah requirements and is executed in accordance with the relevant legal procedures. Failure to do so can lead to challenges and disputes among heirs. Islamic wills in Malaysia are a crucial aspect of the country's legal system, ensuring that the distribution of assets among heirs adheres to Islamic principles of justice and equity. These wills are governed by a combination of Quranic guidelines, Sunnah, and relevant legislation, and they play a significant role in shaping the inheritance landscape for Muslims in the country.

It's important to note that laws and regulations may evolve, so individuals seeking information about Islamic wills in Malaysia should consult legal experts and authoritative sources for the most up-to-date and accurate guidance. Writing a will (Wasiyyah) holds significant benefits for Muslims regarding property planning, ensuring adherence to Islamic principles, and addressing various financial and familial responsibilities. This discussion will explore these benefits in detail, supported by citations from Islamic scholars and legal experts.

Throughout the historical backdrop of British colonial rule in Malaysia, the practice of creating wills has persisted, culminating in the involvement of the Civil Court in matters of wills. Only later, with the significant alteration of Article 121 of the Federal Constitution in 1998, a distinctive jurisdiction was bestowed upon the Syariah Court. An addition in the form of sub-item 121 (A) was introduced to delineate the High Court's authority in cases falling under the jurisdiction of the Syariah Court, particularly pertaining to Muslim wills. As of the present time, a mere six states have ratified the formal documentation of Islamic wills. These states include Selangor with the Muslim Wills Enactment (State of Selangor) 1999 (No.4, 1999), Negeri Sembilan with the Muslim Wills Enactment (Negeri Sembilan) 2004 (No.5, year 2004), Melaka with the Muslim Will Enactment (State of Melaka) 2005, Kelantan with the Muslim Wills Enactment (Kelantan) 2009, Pahang with the Pahang State Muslim Wills Enactment (2017), and Sabah with the Sabah State Muslim Wills Enactment (2018). While a proposed Muslim Wills (Federal Territories) bill for 2001 exists for the Federal Territories, its ratification by Parliament remains pending. Thus, the legislative framework established by these states, as underscored by Noor et al. (2018), serves as a model for emulation by other regions within Malaysia. Consequently, crafting a will offers numerous advantages in the strategic management of Muslim assets, encompassing aspects such as:

2.1.1 Compliance with Islamic Inheritance Laws:

Writing a will is a means for Muslims to ensure that their property distribution conforms to the principles of Islamic inheritance. The Quranic guidelines for inheritance allocation are well-defined, ensuring fair and just distribution among heirs. However, there are situations where a person's circumstances or family structure might necessitate deviations from the default distribution. A will allows individuals to clarify and specify these deviations while staying within the broader framework of Islamic inheritance laws. Tariq Ramadan explains the importance of adhering to Islamic inheritance laws and the role of a will in ensuring just distribution (Ramadan, 2004).

2.1.1.1 Prevention of Family Disputes:

A well-drafted will can prevent potential conflicts and disputes among family members. Ambiguities in property distribution often lead to misunderstandings, disagreements, and even legal battles. By explicitly stating one's wishes in a will, Muslims can minimize the risk of family disputes arising after their passing and help maintain harmonious relationships among heirs. Muhammad Ali Al-Hashimi underscores the significance of a clear will in preventing family conflicts (Al-Hashimi, 2003).

2.1.1.2 Care for Dependants and Special Needs Individuals:

Writing a will enables Muslims to address dependents' financial and care needs, such as minor children, elderly parents, or family members with special needs. By designating guardians and allocating resources for their well-being, individuals can fulfil their Islamic responsibilities of providing for their dependents even after their demise. Dr Muzammil H. Siddiqi emphasizes the importance of considering dependents in estate planning (Siddiqi, 2005).

2.1.1.3 Charitable Giving and Ongoing Rewards:

In Islam, acts of charity (Sadaqah) hold immense spiritual value. Muslims can ensure their ongoing charitable contributions beyond their lifetime by including charitable bequests in a will. Such bequests can support various charitable causes, including education, healthcare, and poverty alleviation, allowing individuals to continue earning rewards (Thawab) in the Hereafter through their philanthropic endeavours. Dr Monzer Kahf discusses the concept of Sadaqah Jariyah and its application in estate planning (Kahf, 2001).

2.1.1.4 Individualized Distribution and Last Wishes:

Every person's circumstances and family dynamics are unique. Writing a will empowers Muslims to tailor their estate distribution according to their specific wishes and the needs of their heirs. This flexibility enables individuals to allocate their assets in a manner that reflects their values, priorities, and personal considerations. Shaykh Faraz Rabbani emphasizes the individualized nature of estate planning in Islam and the importance of expressing one's last wishes (Rabbani, 2012). In summary, writing a will offers numerous benefits for Muslims in property planning. It ensures compliance with Islamic inheritance laws, prevents family conflicts, cares for dependants, facilitates charitable giving, and allows for personalized

distribution of assets. As various Islamic scholars and experts emphasize, these benefits are deeply rooted in Islamic teachings and ethical principles. By drafting a comprehensive and clear will, Muslims can leave behind a legacy that aligns with their faith and values while securing the well-being of their loved ones and the broader community.

2.2 Trust

Islamic trusts, known as "waqf," hold a pivotal and multifaceted role in the socio-economic landscape of Malaysia. Derived from Islamic principles, waqf involves allocating assets, often real estate or financial resources, for specific purposes that benefit the community. Malaysia's history reflects the longstanding practice of waqf, which has been instrumental in addressing diverse societal needs such as education, healthcare, and poverty alleviation. The ethical foundations of waqf, rooted in principles of social justice, equitable wealth distribution, and communal solidarity, have enabled it to serve as a potent instrument for addressing socioeconomic disparities while promoting sustainable development. Scholarly research by Abdullah, Sidek, and Ahmad (2017) underscores the crucial role of waqf in providing consistent funding for essential public services and preserving cultural heritage. Furthermore, the Malaysian government has taken proactive steps to strengthen the waqf management regulatory framework, as Mohamad (2020) emphasized, ensuring efficient administration and transparent governance. By upholding the principles of waqf, Malaysia upholds its commitment to Islamic heritage while effectively addressing contemporary societal challenges.

Trust, in accordance with the principles of English equity, embodies a form of estate arrangement. Defining a trust involves characterizing it as an equity-based commitment whereby an individual, titled as the "Trustee," assumes the duty of managing the governed assets referred to as the "Trust Property," all for the advantage of the designated party recognized as the "Beneficiary" (El Islamy, 2018). This responsibility of the trustee is deeply rooted in a fiduciary connection, stemming from the benevolent intentions of the settlor who initiated the establishment of the trust. Establishing a trust account typically serves the interests of third parties rather than yours. The execution of trust follows three primary methods: declaration of trust, deed of trust, and will, as outlined by George in 2005. The execution of trusts is intricately tied to Civil Law, particularly under the provisions of the Trustee Act 1949 (Act 208) and the Trust Company Act 1949 (Act 100). Its jurisdiction is explicitly defined in the Federal Constitution, Ninth Schedule, Legislative List, List 1, Federal List, 4 (e) (i), encompassing various legal aspects such as contracts, partnerships, agency, property transfer, actionable wrongs, and equity.

For any trust entity in Malaysia intending to provide trust services, formal registration under the Companies Act 1965 (Act 125) and the Trust Companies Act 1949 (Act 100) is mandatory. Noteworthy establishments in Malaysia offering trust services include Amanah Raya Berhad (ARB), Wasiyyah Shoppe Berhad, as-Salihin Trustee Berhad, MyAngkasa Amanah Berhad, Labuan Trustee Berhad, along with prominent banking institutions like CIMB Trustee Berhad and Maybank Trustee Berhad.

The flexibility of trust instruments allows their implementation during one's lifetime or posthumously. The trustee's role in realizing the settlor's intentions is enshrined in the trust deed.

This implementation mirrors that of a non-Muslim will and falls outside the purview of Islamic inheritance law, as indicated by Yaacob in 2016. Refer to Table 2 for an overview of the range of trust products available from key industry participants within the trust sector.

Table 2
The trust products are offered by the main industry players in the trust industry.

No.	Trust Institutions	Trust Products Offered
1	Amanah Raya Berhad (ARB)	Cash Trust
		Property Trust
		Insurance Trust
		Hibah
		Deklarasi Hibah
2	Wasiyyah Shoppe Berhad	Immovable assets, Real Estate
		Amanah Saham Berhad investment (ASB)
		Cash
		Takaful Policy
3	as-Salihin Trustee Berhad	Education
		Maintenance
		Corporate
		Charitable
		Insurance
		Takaful / Insurance
4	MyAngkasa Amanah Berhad	Property Trusts
		Insurance Trust
		Business Trusts
5	Pacific Trustees Berhad	Private Wealth
		Institutional Trust
6	Maybank Trustee Berhad	Corporate Trust
		Private Trust
7	CIMB Islamic Trustee Berhad	Unit Trust Funds
		Real Estate Investment Trusts (REITs)
8	RHB Trustee Berhad	Insurance Trust
		Business Succession Trust
		Offshore Trust
		Private Trust
9	PB Trustee Services Berhad	Testamentary Trust
		Private Trust / Living Trust
		Charitable Trust
		Insurance Trust
		Hibah Trust
10	Affin Hwang Trustee Berhad	Private Trust / Living Trust
		i-Secure (Insurance Trust)
		Testamentary Trust

The distinctiveness of a trust instrument lies in its adaptability to various forms of Islamic contracts, including the wakalah instrument, Islamic entrustment (wisayah), amanah, waqf, kafalah, gifts (hibah), and wadiah (Ahmad Hidayat, Noor Inayah, Luqman, 2021; Mahmud et al., 2018; Tuyll, 2006). There is a growing focus on its application within the property planning sector, exemplified by the adoption the hibah trust (Abdullah et al., 2019; Noordin et al., 2016) and takaful trust (Abdullah et al., 2020) in Malaysia. Integrating the trust instrument and Islamic contracts enriches the scope of property planning. Notably, even before passing away, a settlor can establish trust through a testamentary disposition. To illustrate, one can entrust a portion (1/3) of their assets to a trustee for the welfare of their minor children. This avenue empowers the Muslim community in Malaysia to effectively structure their estate, ensuring their heirs' welfare and interests.

Both the mechanisms of wills and trusts hold significance in materializing a settlor's intentions for their assets during their lifetime. These tools complement each other, jointly ensuring a comprehensive approach to property planning. However, while a will necessitates consent from all heirs for dispositions to beneficiaries and is limited to a portion (1/3) of non-heirs (al-Zuhayli, 2010), the trust instrument operates conversely. A settlor can opt for a trust governed by Civil Law, enabling them to allocate assets to a chosen individual while defining conditions, duration, and objectives for the trust's establishment (Mahmud et al., 2018). Moreover, the settlor retains full authority to establish and modify the implemented terms at their discretion.

3.0 Forth Industry Revolution (4IR)

The five foundational technologies of the 4IR policy include artificial intelligence, the Internet of (IoT) Things, blockchain, cloud computing and big data analytics, as well as advanced materials and technologies (Ministry of Science, Technology and Innovation [MOSTI], 2021). These technologies can support deploying and optimizing other 4IR technologies, such as robotics, biotechnology, nanotechnology, etc. The convergence of contemporary Internet of Things (IoT) technologies with the industrial sector has given the term Industry 4.0. This concept was sparked by the fusion of the Internet of Things (IoT) and the Internet of Services (IoS) during the developmental process (Kagermann, Wahlster & Johannes, 2013). IoT typically encompasses specialized technologies, utilities, the interconnection of physical objects, the facilitation of object-to-object communication, and data exchange. It finds application across various domains, enabling the automation and regulation of functions such as heating, ventilation, machining, and remote monitoring (Zhong et al., 2017).

The Internet of Things (IoT) is an effective and pertinent solution development tool. Comprised of diverse components like sensors, applications, network elements, and electronic devices, IoT enhances the efficiency of information sharing and dissemination (Malavade & Akulwar, 2017). It facilitates seamless data transmission across networks, obviating the necessity for direct human-to-human involvement. Gluhak et al. (2011) elucidated that IoT represents a network connecting physical objects that communicate autonomously, diminishing reliance on human intervention while collaboratively achieving objectives. This interconnected system of physical entities, conveying outcomes to human recipients, operates over time. IoT establishes an environment wherein entities, be they objects, animals, or individuals, are equipped with

distinctive identifiers enabling data transmission via the internet without requiring human-to-human or human-computer interaction.

3.1 The Intersection Of 4IR Potential In The Estate Planning Industry

The fusion of IoT 4.0 and Islamic estate planning engenders opportunities and challenges. On the positive side, technological advancements can facilitate more accurate asset tracking and distribution, simplifying the execution of Islamic inheritance laws (Kamal, 2018). The 4IR, often called Industry 4.0, is characterized by integrating digital technologies, automation, data exchange, and artificial intelligence into various industries. In the context of Malaysia, like in many other countries, 4IR has the potential to bring significant changes to various sectors, including the estate planning industry (Ali et al., 2020). Estate planning involves managing and distributing assets and properties after an individual's demise, ensuring that their wishes are carried out and their beneficiaries are well cared for. Here's how 4IR could impact the estate planning industry in Malaysia:

3.1.1 Digitalization of Processes:

4IR emphasizes the use of digital technologies and automation. This could mean digitising documents, records, and processes in the estate planning industry. Digital platforms could streamline the creation and storage of wills, trusts, and other legal documents, making them more accessible and secure. The advancement of the 4IR holds the potential to enhance the ethical aspects of property planning, particularly in the realm of online wills and trusts. In Malaysia, the incorporation of Islamic estate planning practices in alignment with the progress of 4IR is currently nascent. Despite this, it's evident that various trust institutions in Malaysia are actively engaged in these endeavours. This collective effort has notably facilitated the seamless online implementation of wills, benefiting the Muslim community with enhanced accessibility, speed, and efficacy.

3.1.2 Data-Driven Decision Making:

With the increasing use of data analytics and artificial intelligence, estate planners in Malaysia could use data-driven insights to provide more personalized and efficient services. This could involve analyzing financial data, family structures, and legal requirements to create tailored estate plans that suit clients' needs better.

3.1.3 Online Estate Planning Services:

The rise of Industry 4.0 could lead to the emergence of online estate planning platforms in Malaysia. These platforms could offer automated tools for creating basic wills, trusts, and other legal documents, making estate planning more accessible to more people. The initiation of this digital transformation within the Islamic estate planning sector has laid the groundwork for positive outcomes. The introduction of online will numerous trust institutions, such as Amanah Raya Berhad, As-Salihin Trustee Berhad, Wasiyyah Shoppe Berhad, and MyAngkasa Berhad,

have embraced registration through dedicated websites. This expansion of the approach exemplifies a progression toward more efficient, technology-driven property planning practices.

3.1.4 Blockchain Technology:

Blockchain, known for its security and transparency, could play a role in the estate planning industry. It could be used to create secure digital records of asset ownership and distribution, ensuring that the transfer of assets to beneficiaries is accurate and tamper-proof.

3.1.5 Remote Consultations:

4IR enables remote communication and collaboration. Estate planners in Malaysia could use video conferencing and online collaboration tools to consult with clients and provide advice without needing physical meetings.

3.1.6 Cybersecurity Concerns:

While 4IR brings numerous benefits, it also raises cybersecurity concerns. Given the sensitive nature of estate planning documents, ensuring robust cybersecurity measures will be crucial to protect clients' confidential information.

3.1.7 Legal and Ethical Considerations:

As 4IR technologies evolve, legal and ethical considerations related to digital estate planning may arise. Regulations around electronic signatures, digital wills, and the validity of online documents may need to be addressed to ensure the legality of digital estate planning processes.

3.1.8 Upskilling and Training:

The adoption of 41R technologies will require estate planning professionals in Malaysia to upskill and adapt to the changing landscape. Training in digital tools, data management, and cybersecurity will be essential. By integrating 4IR technologies, the estate planning industry is positioned to deliver improved services, with the added advantage of accommodating Islamic principles. By harnessing digital platforms, creating, registering, and administering wills and trusts becomes more accessible, transparent, and efficient. The collaboration between technology and Islamic estate planning principles underscores the adaptability and forward-looking nature of the industry in Malaysia.

However, amidst these advancements, several considerations warrant attention. The transition to online wills and trusts introduces a set of legal and ethical complexities, including security, data privacy, and the authenticity of electronic signatures. Additionally, the ongoing evolution of 4IR necessitates continuous adaptation and training for estate planning professionals to navigate the changing landscape effectively. 4IR has the potential to revolutionize the estate planning

industry in Malaysia by introducing digitalization, data-driven insights, online platforms, and innovative technologies. However, it will also bring challenges to security, regulation, and ethical considerations. Estate planning professionals and regulatory bodies must work together to harness the benefits of 4IR while protecting clients' interests and legal rights. Furthermore, integrating IoT devices into estate planning may also clash with Islamic principles. For instance, the automated decision-making capabilities of IoT devices may conflict with the concept of human agency, a cornerstone of Islamic jurisprudence (Alsaad et al., 2020).

4.0 Issues and challenges

In the landscape of 4IR, digital signatures play a crucial role in enabling secure electronic transactions (Cahyadi, 2020). These signatures employ cryptographic techniques within a public key infrastructure to authenticate parties involved in a contract (Rehulina, 2018). They use mathematical algorithms to create a unique digital mark that ensures security and trust. Integrating IoT 4.0 with Islamic estate planning brings forth opportunities and challenges. Technological progress can enhance asset tracking and simplify Islamic inheritance execution (Kamal, 2018). A valid digital signature encompasses attributes beyond electronic representation. It signifies confidentiality, identity verification, and non-repudiation (Rehulina, 2018). Encryption underpins digital signatures, preserving document confidentiality. Identity authentication prevents fraud by verifying the signatory, and non-repudiation prevents denial of involvement. To regulate digital signatures, countries establish legal frameworks. Malaysia's Digital Signature Act (Act 562) supports digital signatures in electronic communication (Communications and Multimedia Commission of Malaysia, 2020). This act strengthens regulation under the Malaysian Communications and Multimedia Commission (MCMC). In Islamic estate planning, digital signatures hold significance. They provide secure and efficient execution of legal documents in complex wealth distribution and inheritance situations. This aligns with transparency and non-repudiation in Islamic finance and estate practices.

4.1 Ineffective Digital Signature Integration:

The banking and takaful industries have successfully harnessed digital signatures to streamline operations. Still, involving wills and trusts, the property planning sector lags in effectively utilizing this technology. Despite the potential benefits, the seamless integration of digital signatures into property planning processes remains a significant challenge. Integration must adhere to Islamic law's authenticity and legal procedure requirements, leveraging technological advantages. However, integrating IoT devices into estate planning may clash with Islamic principles. For instance, the automated decision-making capabilities of IoT devices may conflict with the concept of human agency, a cornerstone of Islamic jurisprudence (Alsaad et al., 2020). Within the context of the authors' investigation, the utilization of digital signatures in property planning, particularly concerning will and trust instruments, appears to lack effectiveness. This is exemplified by a case study involving the ARB official website, where a settlor must arrange an appointment to sign a pre-agreed will, even after completing the initial draft online. Additionally, the settlor must provide a printed asset document as tangible evidence of their property (Will Services of Amanah Raya Berhad, 2020).

4.2 Dependency on In-Person Appointments:

The case study from the ARB official website highlights a noteworthy issue. Even after completing a draft will online, the settlor is required to schedule an in-person appointment to finalize the signing process. This introduces an unnecessary manual step and contradicts the principles of digital transformation, where remote and automated processes are the norm. According to Azhar (2018), even though digital methods can be used to create will and trust documents in the initial stages of an online application, hard copies of the documents are still necessary. The current practice requires that the consent of the settlor or donor and the acceptance of the testator or beneficiary are signed in person and witnessed by two qualified witnesses. The rationale behind the existence of this witness is also elucidated by the majority of legal scholars, drawing from Surah al-Maidah : 8 in the Quran.

يَـٰٓأَيُّهَا ٱلَّذِينَ ءَامَنُوا۟ كُونُوا۟ قَوَّٰمِينَ لِلَّهِ شُهَدَآءَ بِٱلْقِسْطِ ۖ وَلَا يَجْرِمَنَّكُمْ شَنَـَٔانُ قَوْمٍ عَلَىٰٓ أَلَّا تَعْدِلُوا۟ ۚ ٱعْدِلُوا۟ هُوَ أَقْرَبُ لِلتَّقْوَىٰ ۖ وَٱتَّقُوا۟ ٱللَّهَ ۚ إِنَّ ٱللَّهَ خَبِيرٌۢ بِمَا تَعْمَلُونَ

"O you who have believed, be persistently standing firm for Allah, witnesses in justice, and do not let the hatred of a people prevent you from being just. Be just; that is nearer to righteousness. And fear Allah; indeed, Allah is Acquainted with what you do."

4.3 Printed Asset Document Requirement:

Another obstacle is the insistence on attaching a printed asset document as proof of the settlor's property. This contradicts the paperless and digital nature of modern transactions and defeats the purpose of implementing digital signatures. It adds complexity and counteracts the efficiency gains that digitalization should bring. According to a Quranic verse above, it becomes evident that a will is not solely confined to a written format but also necessitates the presence of witnesses. The ethical framework established by Shariah aims to fulfil the purpose of drafting the will, primarily to safeguard one's possessions (hifz al-mal). Witnesses are responsible for pre-empting posthumous disputes and verifying the authentic intention of the testator (Ibn Qudamah, 1996). Consequently, completely adopting digital signatures in an entirely online environment presents a current implementation challenge. Furthermore, this document's written role significantly enhances its credibility, particularly when disputes arise concerning the executed agreement. Even upon finalizing a will and trust, a duplicate is furnished to the testator, while the original remains with the executor for the future administration of the Islamic estate.

4.4 Lack of Awareness and Education:

The slow adoption of digital signatures in property planning might also be attributed to a lack of awareness and education among the public, especially among older generations who may be less familiar with digital technologies. Addressing these knowledge gaps and fostering trust in the security of digital signatures is crucial for widespread adoption. The attitude of a society that likes to procrastinate in doing inheritance planning is not an unfamiliar issue. If the issue of will awareness in Malaysia is studied, the public is still unaware of its importance. Furthermore, the study by Jamhari et al. (2020) stated that the level of preparation of Malaysia, especially the people in realizing the 4IR, has not yet achieved confidence in this goal. Although from a global

perspective, industrial development in developed countries such as China, Japan and the United States has begun to carry out this aspiration. But Malaysia still needs efforts to provide awareness to all Muslim society levels, especially to be ready to face the reality of 4IR. The combination of procrastination and the unwillingness to face the world of technology makes the Muslim community fall behind in property planning. Hence, the instruments of will and trust instruments offered through mobile digital applications cannot provide maximum benefits if this attitude problem is not eradicated. Therefore, the government and trust institutions need to mobilize efforts to convey an awareness of the importance of property planning and operating technology in managing daily life, including the property owned.

5.0 Conclusion

The research revealed the crucial role of ethical considerations in the execution of wills and trusts, benefiting both the donors and beneficiaries. Furthermore, the study underscores how the advent of the Fourth Industrial Revolution presents a remarkable opportunity for trust institutions to raise awareness and advocate for the significance of implementing property planning within the Muslim community. This investigation concentrates on digital wills and trust mechanisms, which remain pertinent for application. However, the integration of these technological tools comes with its set of challenges. These include the need for substantial investments and expertise, societal tendencies towards procrastination and resistance to engaging with a boundaryless technological landscape, and concerns regarding the validity of digital signatures in electronic documentation. Consequently, the researchers emphasize continuously enhancing innovative approaches to elevate the quality of digital applications to meet societal expectations. Moreover, community members should actively pursue up-to-date knowledge to avoid complacency and ensure the economic well-being of future generations who will inherit their assets. It is worth noting that manual documentation continues to be upheld alongside digital planning instruments as a supplementary measure to ensure validity and the fulfilment of all wishes despite the prevalent issues and obstacles. Hence, Areas for Improvement: To enhance the effectiveness and accessibility of the Islamic Will system in Malaysia, several considerations could be explored:

5.1 Education and Awareness:

Increasing public awareness about the importance of Islamic Wills and their proper execution can contribute to a smoother implementation process. Seminars, workshops, and online resources can help educate Muslims about the benefits and procedures of creating a valid Islamic Will.

5.2 Streamlined Process:

Simplifying the drafting process and registering Islamic Wills could encourage more individuals to utilize this tool. Clear guidelines and standardized forms could be introduced to facilitate the creation of Islamic Wills.

5.3 Alternative Dispute Resolution:

Establishing mechanisms for alternative dispute resolution, such as arbitration or mediation, could help resolve conflicts that may arise from the distribution of assets under Islamic Wills. This approach may help preserve family relationships and reduce the burden on the legal system.

5.4 Digital Solutions:

Introducing digital platforms for creating and registering Islamic Wills could improve accessibility and efficiency. Online tools could guide individuals through the process and ensure compliance with legal requirements.

5.5 Legal Harmonization:

Continual efforts to harmonize civil and Islamic laws related to inheritance can help create a more seamless process for implementing Islamic Wills. This could involve collaboration between religious authorities and legal experts.

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