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The Future of Malaysian SMEs in the Digital Economy

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Abstract

Malaysian Small and Medium Enterprises (SMEs) are advancing towards the reception of the Industry Revolution (IR4.0), where the digital economy is part of its elements. The critical concern is the absence of innovative abilities just like the intelligence of the SMEs, which prompts confusion and lack of understanding on how the reception of such advancements could upgrade organisations' activities and advantage SMEs in the end. The impact of digitalisation on the economy worldwide has been tremendous and unbalanced. This paper discusses methodologies, not whether SMEs should acknowledge digitalisation but how digital economies can enhance their practicality while immediately resolving the issues. It outlines the digital economy in its current stage, overviews the high-level scene in Malaysia and draws out key game plan ideas for SMEs to take on digitalisation as a fundamental piece of their business continuity structure. It is an attempt to see the importance of the digital economy, which is still without conviction characterised by confirming the digital economy's impacts that benefit SMEs and investigating how the digital economy might have tackled the performing multiple tasks vortex, notwithstanding the absence of financial resources. Based on past research and analysis of several publications, this paper will permit a more insightful understanding of the significance of Malaysian SMEs to be modernised through an organised deployment of the economic digitalisation exercises that ensure business sustainability and endure the unpredictability of pandemic consequences.

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1. Introduction

Businesses of every size and industry increasingly provide their employees with digital resources. Today, over half of the average company's workers utilise Internet-connected devices. Certain technologies in the digital economy provide businesses with several significant advantages. Economic digitalisation decreases transaction costs by improving and accelerating access to information and communication between employees, suppliers, and networks. It may assist small and medium-sized enterprises (SMEs) in integrating into global markets by reducing the expenses involved with the shipping and border processes, and it dramatically expands the scope of service trade. It promotes access to resources, such as financing (such as peer-to-peer lending), training, recruiting channels, and government services, which are increasingly made accessible online (OECD, 2020). In addition, it promotes innovation, increases access to innovation assets, and allows businesses to collect data and analyse their operations in novel ways to boost performance.

Despite the benefits and opportunities, the digital economy presents, as well as the significant increase in adoption over the past few years, many SMEs continue to lag in their adoption, and the digital economy adoption gap between smaller firms (10–49 employees) (OECD, 2020) and larger firms has increased over the past decade. Progress has stalled in many countries (such as Poland, Portugal, Greece, Hungary, and Turkey, where the median share of employees with connected computers in small firms remains at or below 40 per cent) (OECD, 2020). In contrast, large firms in frontier countries (Sweden, Finland, and Denmark, where the median share of employees with connected computers is approximately 80 per cent or higher) have shown rapid progress (OECD, 2020). Because digitisation is a crucial driver of productivity development and, in turn, pay growth, these disparities have led to a rise in inequality across individuals, locations, and businesses.

In Malaysia, small and medium enterprises (SMEs) should have the ability to acknowledge the different benefits and capitalise on the digital economy's availability. Embracing innovation will bring SMEs the exciting panorama of transformation. However, it has some challenges (Kumar and Ayedee, 2021). Factors stalling the innovation journey include lacking organisational support, financial aid, knowledge and talents. It will be further discussed in the preceding paragraph.

1.1. Objectives

This paper's primary purpose is to understand the importance of Malaysian SMEs in grasping the opportunities embedded in the existence of the digital economy. Nonetheless, it will help these SMEs realise the importance of modernising their business to be sustainable and withstand the competitiveness of the volatile marketplace.

1.2. Questions

This paper will be answering the questions listed below that arise in terms of matters related to the impact of the digital

economy and its relationship to SMEs.

- *Q1 What is a Digital Economy transformation?*
- *Q2 How will the Digital Economy Impact SMEs?*
- *Q3 How can SMEs leverage Digital Economy?*

2. Review of Literatures

The primary sources for this paper include scholarly publications from the previous four years, government papers, public announcements, and evaluations of technological acquaintances arranged in reverse chronological order. To better comprehend how the digital economy and digital transformation are characterised, it is necessary, to begin with, the basics. According to Schallmo et al. (2020), digital economy brought about by digital transformation refers to an economy dependent on computerised registering advances, even though the industry increasingly views this as directing business through business sectors dependent on the Internet and World Wide Web. It is also referred to as the Internet Economy, the New Economy, or the Web Economy. SMEs transitioning to a digital economy are seen as having a fully developed business model that adopts a digitisation plan that integrates a full range of digital tools and technology across the company's operation, from ideation to execution (Rocha et al., 2021).

Several factors, including government policy and regulation, the internet, infrastructures (e.g. electricity and web connectivity), the telecommunications industry, service providers, virtual industries, and knowledge and information management systems, contribute to the viability of the digital economy (Lee, 2020). These components are similar to a lubricant that enables the digital economy to work efficiently; as a result, they contribute to SMEs' cost reduction and value acquisition. On the other hand, the digital economy indicates a personalised customer experience that allows each consumer to have a unique personal recognition.

2.1. Adoption of Digital Economy

The digital economy was introduced in the early 2000s and has evolved rapidly. In 2012, Germany initiated Industry Revolution 4.0 (IR4.0), which emphasised utilising the internet as the future of daily human activities' normality. The Internet of Things (IoT) is one of the nine pillars that make up IR4.0. One of the elements of the IoT is the digital economy itself. Several aspects started the initiation of digital economy adoption by SMEs. In 2020, the world was hit badly by COVID-19, which saw many SMEs have to wind up operations due to the pandemic (Kumar & Ayedee, 2021). The failure to recognise contingency plans to continue operating in the situation is the fundamental cause.

On the other hand, as more knowledge is learned throughout the event, SMEs are becoming more adaptable to it when some SMEs realise the existence of the digital platform, which is already there to be utilised (Frankenberger, 2020). These technologies are up-to-date and have advanced features that enable SMEs to continue to operate while coping with the effects of the pandemic. The connectivity eventually became widespread and allowed business and other daily activities to run in some new ways.

IoT is the interconnectivity of humans and devices through or within the internet network. Governments are increasingly emphasising digital transformation, realising the significant potential that IoT could bring. In Malaysia, the Malaysian Digital Economy Corporation (MDEC) was tasked with evaluating the importance of IoT to SMEs. Businesses, big or small businesses, are encouraged to adopt innovations such as IoT to ensure that their business will be sustainable and withstand the economic turbulence caused by uncertainties like COVID-19. Many new infrastructures such as 5G, Blockchain, and Artificial Intelligence (AI) are being developed to supplement the need for technology transformation in all sectors, especially the economic sector. SMEs have to take necessary action toward harnessing the benefits of digital economy existence through upskilling the existing talents, usage of new machinery as well as digital platforms, and getting access to all the provided help by the government and other agencies.

2.2. The Benefits of Digital Economy

Through the digital economy**,** various new services that were previously unimaginable have become available. For example, online deliveries for food and groceries to human social apps are now available. The influx of massive amounts of data into the systems has resulted in significant new insights into a variety of topics (Sturgeon, 2021). For instance, the mass production of data about repetitive orders on groceries can help inform governments and SMEs about what is happening in the economy in terms of customers' preferences. The data will also help with projecting production and resources, as well as sales and marketing activities that will eventually lead to cost optimisation. It has also been tried as a way to reduce unemployment, improve the quality of life, and increase access to public services by getting people to use digitised public services (Sepashvili, 2020).

Three major areas would benefit from the digital economy: organisation, production, and customer service. Adopting a digital economy means that SMEs will embrace change, allowing them to be more flexible in making decisions, implement more sensible business infrastructures, and have improved business intelligence and information systems (Sanchez-Baez et al., 2019). Organisational changes have a positive impact on business, marketing, and the advancement cycle. Additionally, an interior concentration and control-oriented business culture have a positive impact on the innovation development process.

It also helps SMEs through manufacturing efficiencies. From the data gathered, SMEs can use it to plan their production to be more lean and effective. According to Polzunova et al., 2021, there is a positive impact of digital technology on the activities of manufacturing enterprises. Having such data and accuracy will result in a well-managed production system that is both cost and human resource effective. SME can expect homogeneous products to be sold in the market that will satisfy the customers' expectations. According to Liu et al. (2020), China's manufacturing industry's digital technology level index grew from 0.286 in 2001 to 0.359 in 2014. With an impact value of 0.129, the effect of digital technology on the upgrading of the Chinese manufacturing sector is considerable at the 5% level. According to discerning sources of digital technology, local digital technology is widely used, but international digital technology is more efficient. Both of the effect coefficients, 0.124 and 0.703, support the modernisation of the manufacturing sector. It is an example of a well-managed production system in a digital economy.

Technology, as in the digital economy, can monitor and quantify the customer's "online footprints," which provides invaluable insights into the customer's desires, motivations, and product/service preferences. SME can now monitor the customers' online and offline behaviour to get a better understanding of their conduct. From the data analytic, SMEs can then strategise the marketing plan accordingly when there is data about the customers' preferences and needs. A good and smooth supply chain system can be arranged through the internet that links the warehouse to delivery service providers. For example, an order fulfilment system through mobile applications that serves the customer's request, which is linked to the SME business subsystems and then relays it to the payment gateway, will also alert the delivery unit to send the products to customers as requested. These systems can be found in many businesses, such as Kentucky Fried Chicken, Grab Food, Food Panda, Lazada, and Shoppee.

2.3. Leveraging Digital Economy

SMEs keep on confronting the execution of multiple task vortex, alongside the absence of available capitals as in financial and human resources; promoting abilities and backing administrations; including destitute admittance to business organisations, innovation and markets digitisation (Ambad et.al., 2020). A multiple tasks vortex is when there are several tasks occurring at the same time in achieving the similar objective of a process or production (Hull et al., 1999). These tasks need to be coordinate in order to create the expected outcome. Four essential characteristics of Vortex make it suitable for process coordination (Figure 1): The attribute-centric view, supporting conditions, snapshots, and decision modules (Hull et al., 1999).

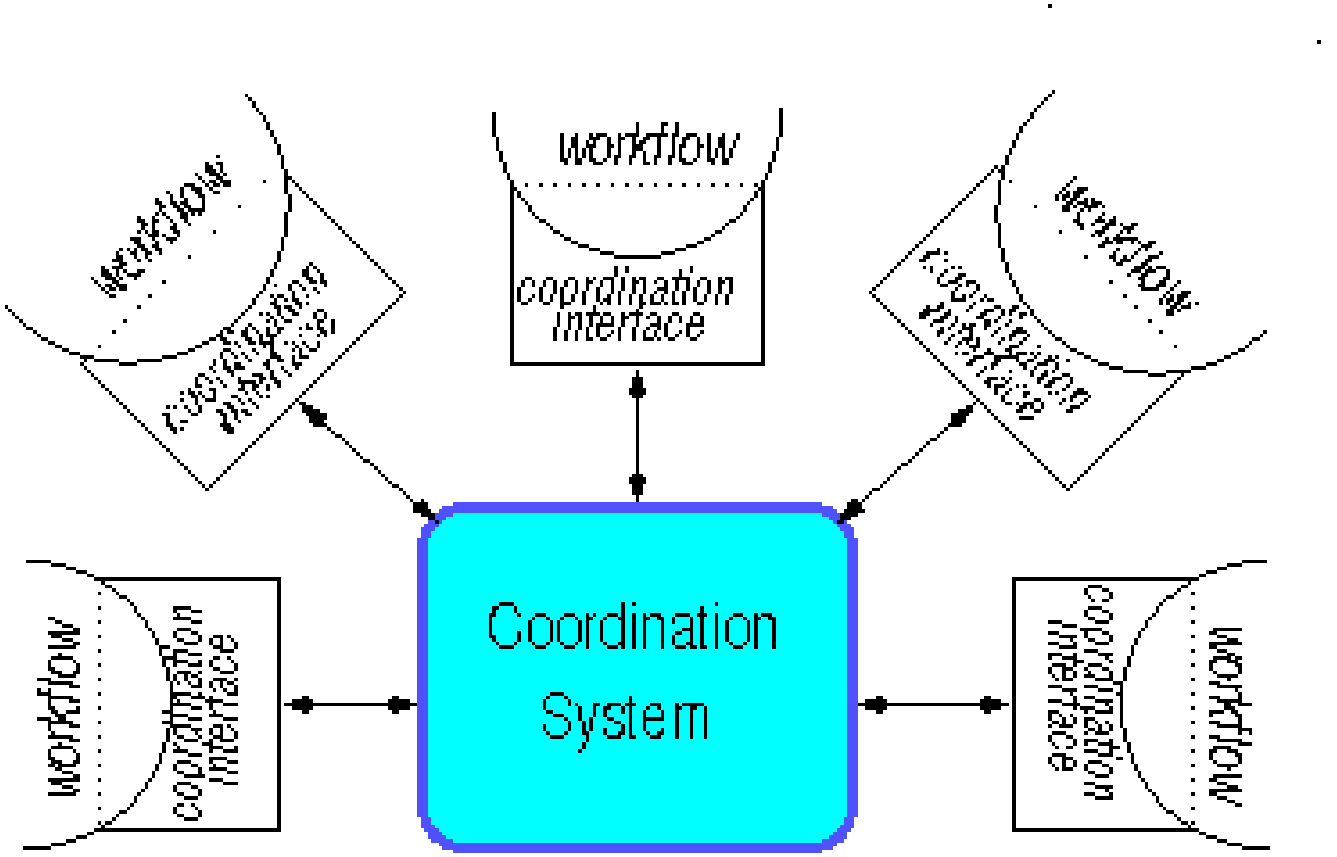

Figure 1. Multi tasks Vortex Coordination.

However, there are many solutions that the digital economy is offering to solve many of the problems mentioned above (Kumar and Ayedee, 2021). The question is how do SMEs leverage it? Governments are offering grants, financial assistance such as interest free loans, and other incentives through adopting the digital economy. To do so, SMEs must acknowledge it by embracing the key success features which includes ICT-Powered SMEs, Creative and Innovative, Creative and Innovative, Opportunity-Driven Business Development, Empowered People, and Extended Enterprise (figure 2) for the business to attain in order to leverage on the digital economy (Palanimally et.al, 2020).

Figure 2. SMEs key success features.

i. *ICT-Powered SMEs*

SMEs that have technical knowledge obtain competitive advantages from being innovation pioneers compared to their peers in deals, benefits, worker fulfillment, and business development. SME are said to accept and use the full range of available information and communication technology (ICT) devices, which includes efficiency programming, Internet accessibility, and cloud-based administrations (Kumar and Ayedee, 2021). SME's will stay in front of standard ICT reception and ride new floods of headway to improve adequacy, productivity, and ingenuity while interacting better and quicker with new clients and advertisements, and rival a lot bigger players. Several more advantages from being able to adopt digital transformation within SMEs that will also be limitless to recent occasions, but it will chart the sustainability route for SMEs in the future.

ii. *Creative and Innovative*

SME are learning and innovative organisations that change and adjust to suit their rapidly changing business climate through the development of useful assets, systems, and modernisation of the business by doing new things or doing old things in new ways (Poon et al., 2020). The ability of SMEs to embrace the creative and innovative side will enhance the growth process that, in the long run, will nurture business sustainability. Learning new knowledge and new skills will help SMEs to be more creative and innovative. There are so many initiatives by the government under agencies such as SME Corp., INSKEN, MARA, and others that provide various types of training as well as brainstorming sessions that will enhance the SME way of thinking.

iii. *Opportunity-Driven Business Development*

The approach's goals are to increase an organisation's viability through the pursuit of new business, where creative high-development SMEs can usually avoid the gruelling competition in a developing industry. To enable the SMEs to initiate it, they need to gain knowledge through which either general entrepreneurial training is more effective in expanding the enterprising self-viability of opportunity-driven SMEs, or through task-explicit training that is more practical for expanding the innovative self-adequacy of necessity-driven entrepreneurs (Eister and Msimango-Galawe, 2020). SME's must foresee the opportunities around them or create the needed opportunities to ensure that the business will stay relevant at all times.

iv. *Empowered People*

The advocates of AI will take over some of the human jobs, but at the same time, human tasks are redefined to have new roles to play that create new value for SMEs (gerfalk, 2020; Sullivan et al., 2020). To be competitive and gain an advantage, SMEs must have a highly qualified team of employees. These employees must be well trained and have skills and trust from the management since employees are the real assets for organisations in contributing toward business efficacy by demonstrating unrestricted behaviour. Leaders must always motivate and give opportunities for employees to grow in the sense that it will upskill employees to meet the needs of the business in its current situation. Good employees that have a great attitude and significant comprehension are bound to display a greater sense of belonging and loyalty, while representatives with self-assurance and skill perception are bound to show individual-related self-centered conduct (Islam and Irfan, 2020). The ability of SMEs to gain control of these types of employees will be a great achievement when the employees are well taken care of and are given perks for a job well done (Crawford and Butler-Henderson, 2021).

v. *Extended Enterprise*

Extended enterprise is achieved through the legitimate working of one business; different businesses prosper. Accordingly, a chain of random business establishments cooperating is shaped. This is known as the all-inclusive venture model. Here, an association is something other than a solitary element, where different businesses or organisations go about as significant supporters of businesses' prosperity. Subsequently, they are considered as augmentations of the association, for example, expanded undertakings. The extended enterprise concept consists of diverse arrays of innovation such as online integration, centralised networking systems of distribution agreements, collaborative marketing, R&D programme partnerships, affiliations, joint ventures, preferred suppliers, and customer relationships (Taifa et. al., 2020). It is asserted by Awadid and Dubois (2020) that human interface plays the main role in bridging the cooperation of an extended enterprise apart from having rules that are clear, methods that are normally used and techniques, interoperability tools, role transparency and duties of each collaborating firm, and change communication appropriateness.

vi. *Engaged Customer*

Online customer engagement is a recent practice where client-centered corporate sites, conversation gatherings, or online journals, for instance, are places where individuals can impart and associate manners that can't be reproduced by any unconnected conventional medium (Md. Jani et al., 2020). Having a present online, SMEs will gain a very interactive relationship with the customer and will gain more knowledge about each one of them. Robots or AI usually act as dot connectors, whereby they collect and divert every activity to the customer. According to Wahyuni and Sara (2020), the direction of the market has a huge beneficial outcome on digital transformation performance. Market direction positively affects the commitment of the customers and development execution, and commitment in part intercedes the connection between the orientation of the market and carrying out innovation. What SMEs should emphasise is in the area of how to create greater engagement by the customers and attract new ones to the business.

3. Discussion and Conclusions

From the literature, there are several areas that SMEs have to master in order to modernise their business, thus obtaining the benefits of the emerging digital economy all around the globe. It entails facilitating knowledge transfer about the digital economy within the organization, obtaining cutting-edge technology (both physical and virtual), innovation, and networking. To be sustainable and absorb the impact of the digital economy, SMEs need to prepare for technology acceptance to improve the skills, knowledge and professional capacity of their employees, as this will improve products and service delivery (Mwende, 2020). Modernisation means that SMEs have to embrace changes that provide "value" that offer the competitive advantage needed for business survival. Value is interpreted as the worth of the SME itself, which will help them to be sustainable. Replacing the old conventional ways of doing things manually is part of the necessary change, particularly in terms of organisation and skill requirements. The recent study by Jun et al. (2021) indicates that the digital economy, innovation, and an organization's ability to change are having huge and positive relationships. This indicates that in order to grasp the benefits from the existence of the digital economy, SMEs must start to embrace changes thoroughly, either bit by bit or drastically according to their organisational ability and deployable assets on hand.

Another area that must be focused on is networking. Having a strong and reliable web of the network, which includes the holistic business ecosystems that consist of suppliers, service providers, and business support entities, will indeed strengthen SME capabilities and push forward the modernisation initiative. SME SMEs must be able to forge competence networks across business capacities, including virtual connectivity on the world wide web, so that the business will not be disrupted (Sirotkina, 2020). A competence network will sustain each other’s and will nurture SMEs' business culture toward a more sophisticated yet digitised environment.

The digital economy runs on vast and sophisticated knowledge, where SMEs must have the needed intellectual capital to fuel themselves to compete in the race. In the context of SMEs, intellectual capital development should focus on the aspect of crafting the process of accumulating, organising, quantifying, and transforming knowledge capital, as well as the development of tools to enable the translation of components into valuable objects that are innovative for the business (Yavorska, 2020). Knowledge can be earned through self-education and by learning from other success stories or failures. A good SME will always update their knowledge and research events and occurrences that lead to more insight into business-related topics. With knowledge, SMEs can find or create solutions for many problems in their business and yet be able to notice any opportunities for the business to grow. Never let the existing status quo halt the growth process, because in a digitised circular economy, nothing stands still and the economy never stops moving. SMEs must not be missing the sense of urgency to innovate and change with it. Emphasising on acquisitions of knowledge will enable SMEs to distinguish features, which is the dependency on key expertise and dynamic competencies that will benefit the business in the long run.

However, failure by SMEs to get proper help from experts in the field will also retard the modernisation process. Having ideas and being innovative sometimes is just not enough to carry out the tasks. There are parties that exist for the purpose of helping SMEs to exhale by modernising and upskilling talents in the business in the right way so that the purpose of the business can be directed accordingly. For example, MDEC, which was established in 1996 to ensure Malaysian businesses were digitally transformed and adopted the IR4.0 technology to drive shared prosperity and firmly establish Malaysia as ASEAN's digital focal point. Overall, MDEC has expertise and knowledge in the digital economy and

is assisting SMEs with the know-how of modernising their business operations. Many of the government agencies, such as INSKEN, MARA, SME Corp., and also local universities, are openly offering the doors for SMEs to lean on to get the most needed help. These gave SMEs more options on what to do or what to expect if one decision were taken through simulations like the sandbox testing offered by the National Technology and Innovation Sandbox (NTIS). NTIS is a facility moulded by the Malaysian Ministry of Science, Technology and Innovation (MOSTI) that permits researchers, innovators, start-ups, SMEs, and high-tech entrepreneurs to test products, services, business models, and delivery instruments in a real-live setting. It is cost-saving and will reduce the failure rates to none. It relieves users of all or selected measures as well as administrative requirements to accelerate the development of creative and innovative idea arrangements from the R&D stage to market readiness.

This paper highlighted the importance of SMEs being able to capitalise on the digital economy environment in order to capture the positive implications from it; as the sustainability of SMEs' businesses is seen as very dependent on the ability to ride the digital wave of change. It summarises the features that SMEs should have within their business and the important aspects that SMEs should be focusing on in order to grasp the competitive advantages from the situation. Modernising SMEs in Malaysia will have a reflective influence on how firms move in and contend in the market, predominantly as methods become replicable at near zero cost margin. Rivalry is very important in driving modernisation, and the guidelines set by government agencies should reflect this. Above all, SMEs should be more adaptable and must have the willingness to embrace change and keep up-to-date with new technology developments. There is help available from government agencies as well as private organisations that provide coaching for those types of knowledge about the digital economy and digital transformation. SMEs must utilise the opportunity to the utmost optimum level and be ready and prompt at all times. These attitudes will nurture SMEs to be modernised, and thus stand a chance to benefit from the impact that the digital economy brings. An empowered SME that has the tools and support from the latest technologies will indeed be creating new possibilities not just for itself, but for the holistic existence of SMEs in Malaysia as a whole, thus contributing more to the GDP in the long run.

4. Implications

Discussion backed by literature reviews suggests that, for SMEs to be sustainable, adopting innovative measures is a must. This paper gives some realistic opinions and some evidence about the digital economy's potential and the exponential opportunities it brings to the business world and to people's lives as a whole. SMEs, start-ups, government agencies, private sector organisations, and researchers from all backgrounds will benefit from a general understanding of the digital economy and its interrelationship with other aspects of daily life, which will encourage others to study it further.

4.1. Recommendations for Future Study

There are still lots of grey areas that can be highlighted as technology that permits business modernisation is something infinite. Much more research can be done in this area, for instance, studies on the challenges facing technology

acceptance at border points by the industry as a whole. For example, investigating and recommending the key factors that motivate Malaysian urban and rural SMEs to engage in implementing IoT.

Studies about managing technology to enhance business operations are also good study subjects that will help many parties to see more clearly what the best practises are for managing a business that has embraced technology in its operation. A modern business entity will have things like machines and AI that replace human jobs, while human functions will be redefined into new tasks or duties. There should be some way to explain the job function to human employees and the protocol that the machines and AI should follow in order to perform the tasks required.

Another consideration is to initiate studies about customers' perceptions of businesses that have adopted the digital economy or IoT to their business. Researchers can focus more on the satisfaction aspect of the services provided or what factors intrigue customers to opt for when choosing to buy from an online shop, for example. These studies will ensure that more businesses will have the understanding of modernising their business and will gain more opportunities from being a modern business establishment.

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