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# Customer-Driven Digital Transformation: The Impact of Digital Business Model Innovation on SME Success in Malaysia

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## ABSTRACT

The SMEs in the competitive and digital economy in Malaysia's F&B sector need to stay relevant by applying DBMI in the current situation. In this paper, we explore the latent four firm digit determinants. They engage digital excellence in digital literacy, product innovation, service convenience, and digital interaction quality, where customer engagement is the central point of the relationship. Our study will use quantitative techniques, such as Multiple Regression and Pearson Correlation, for analysis to evaluate key performance characteristics through the involvement of 300 SMEs' customers' feedback. Considerable findings of the study suggest quality of digital interaction ( $p < 0.001$ ,  $r = 0.73$ ) and customer engagement ( $p = 0.018$ ,  $r = 0.63$ ) as the evident drivers for further business success. Digital literacy and product innovation are the key two influencing factors for the firm's performance, while the degree of service convenience may lead to competition with the level of engagement strategies will have a challenge. As per this research, SMEs will be able to remain distinct by being engaging, simple, and user-oriented through easy-to-use experiences and transforming digitally during this present-day digital-first time. The discussion of the DBMIs topic overlay the focus, and the case of Malaysia Digital Economy Blueprint (MDEB) program on a global structure, OECD, is also highlighted through supporting improvements in digital competence for SMEs and innovation use with the same main goal of customer satisfaction together with a sustainable business growth.

**Keywords-** Digital Business Model Innovation; SME Business Performance; Customer Engagement; Digital Literacy; Product Innovation; Service Convenience.

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## I. INTRODUCTION

It is not just about adoption of digital tools it is about reinvention of business logic, operational processes and customer interactions to achieve increased value and agility in a digital first economy. Small and medium enterprises (SMEs) are the backbone of the economy in Malaysia by constituting 97% of total enterprises [4]. Ongoing within the food and beverage (F&B) space these firms have cited increasing pressure to adapt to changing consumer tastes and digital tendencies. Modern-day consumers are used to tailored experiences, instant service, and seamless interactions online backlogs in expectations tend to hardly meet traditional business models. DBMI presents an excellent opportunity for SMEs to revamp their processes, enhance customer connections, and explore new avenues for growth. SMEs across the country are suffering from low DBMI, despite robust policy efforts, such as the Malaysian Digital Economy Blueprint [14]. One significant barrier is digital literacy, which encompasses not only the basic skill of understanding how to use a computer but also the capacity to analyze, modify and use digital tools as components of strategic business operations. In strides where digital competencies and capabilities are lacking, SMEs become incapable of translating digital tools to actionable changes. Therefore, digital literacy should be conceived as a critical enabler of DBMI, guiding firms' innovation pathways, enhancing co-creation among customers, and facilitating resilience in digital ecosystems. Customer engagement one of the crucial concepts is part of DBMI and describes the level of interaction between the company and its customers across multiple digital platforms. The customer data and insights and personalized content empowers SMEs to develop successful engagement strategies (2). As digital touchpoints increase in our daily consumer engagement, SMEs who leverage these touchpoints will set themselves up for success. The markers of digital business model innovation (DBMI) digital literacy, product innovation, service convenience,

and quality of digital interaction emerge pre-eminent as facilitators of operational performance of SMEs in Malaysia's food and beverage (F&B) sector, serving the focus of this research. A digital transformation that is customer-centric in approach will enable SMEs to improve their operational resilience, be more agile to produce the value and secure the long-term competitive advantage in an increasingly digital-first marketplace.

## II. LITERATURE REVIEW

### A. Digital Transformation in SMEs

In today's ever-changing and highly volatile market, small and medium enterprises (SMEs) must make the transition to digitalization as a key factor of their success. With the rapid transformation of digital technologies that are reshaping various sectors, SMES need to be aware of the fact that converting to this new paradigm is not a choice it is a necessity for their further existence. The inclusion of new high-tech solutions into their business processes will allow these enterprises to improve the efficiency of their operations and to optimize workflows while at the same time enhancing the customer's interactions through personal experiences. SMEs that are involved in this transformation and do not incorporate it into their business model face the prospect of being outperformed and thus may become unsustainable in a fiercely competitive market. Research shows that companies that apply digital transformation at the core of their operations benefit from increased agility and reduced costs enabling them to react fast to market changes and seize new opportunities.

Additionally, as indicated by the OECD study of 2021, the use of data-driven methods enables small and medium-sized enterprises to have the necessary tools to effectively withstand economic volatility, one of the crucial elements needed to survive the current unpredictable landscape due to the pandemic. The Malaysian government has also given emphasis to this integral avenue in its Digital Economy Blueprint [13] and has pushed the local

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companies to leverage digital innovations not only for improved productivity but also for the strengthened international competitiveness. In a world where change never stops and competition is so high, SMEs through the digital transformation can hugely affect their destinies as the winner or the loser in the global market.

### **B. The Role of Customer Engagement in Business Performance**

Brand loyalty, customer engagement, and user experiences are the primary factors that contribute to a company's success. Customers who are actively engaged not only exhibit higher propensity to return for repeat purchases but also evolve into brand advocates, facilitating business growth through referrals. Empirical research indicates that current customers tend to spend 67% more than their new counterparts, thereby underscoring the financial advantages of implementing robust engagement strategies [9]. In the contemporary competitive landscape, businesses that promote meaningful interactions with their clientele witness elevated retention rates and sustained profitability.

In the digital age, customers anticipate more than mere transactions, they desire customized experiences, real-time communication, and effortless service. Organizations that connect with their audiences through personalized content, engaging platforms, and agile digital strategies cultivate deeper emotional bonds, which ultimately foster increased brand loyalty. Research validates that customers with high engagement levels contribute to a 23% enhancement in spending, profitability, and revenue growth compared to those exhibiting lower engagement [9]. For small and medium-sized enterprises (SMEs), social media acts as an economical strategy for enhancing brand reputation and increasing customer advocacy. Studies reveal that engagement driven by social media markedly enhances business performance, enabling SMEs to forge enduring relationships and improve customer retention

[21]. Companies that allocate resources towards interactive content, omnichannel strategies, and proactive customer service experience a significant elevation in brand advocacy and credibility.

It is precisely the companies that are devoted to customer experience that go beyond the efforts of their competitors by seven times, earning more revenue than the ones affected by poor client engagement strategies. Also to make this clear, a 5% improvement in customer retention can surprisingly translate into a profitability increase that ranges from 25% to 95%, which shows that an engagement-driven business model is the most beneficial. To achieve the sustainable success, organizations should focus on the human touch, digital tools optimization, and upgrading customer interactions. A customer-oriented approach drives up loyalty to the brand, promotes customer retention, and fuels further business growth, therefore giving communities the ability to compete in the digital marketplace of today. C. The Major Ingredients of DBMI

### **C. Key Factors in DBMI**

#### **1) Digital Literacy**

Digital literacy constitutes that very soil of DBMI, which enables SMEs to effectively use the digital technology to ensure operational efficiency and establish customer relationships. As of 2021, Malaysia's digital readiness index was 0.46 out of 2.5, which pushes the country into the category of "accelerate" stage of digital readiness. This proves beyond doubt that the Malaysian workforce is in dire need of upskilling in digital domain. Furthermore, a study revealed that 79% of Malaysians typically defined themselves either as digital curious or digital explorer, indicating their growing attraction to digital services. By achieving all these, to get DBMI fully utilized, SMEs have to raise their digital literacy to the minimum requirement to keep up with the developing consumer expectations.

#### **2. Service/Product Innovation**

In the rapidly evolving economy today, the innovation in product driven by digital technology is very crucial for SMEs to remain the market leaders and maintain the competitive edge. Research conducted on Malaysian manufacturing SMEs reveals that introducing new products can dramatically enhance business performance, underscoring the necessity of relentless innovation to stay pertinent [1].

Nevertheless, being an inventive artist doesn't automatically lead to financial prosper common sense. Evidence, however, suggests that success is found when businesses successfully connect innovative systems with personalized customer relationships, navigate market changes, and embrace digital transformation [14]. SMEs that strategically align the product development with the preferences of their customers, streamline the supply chain process, and adopt the latest technologies, obviously, are more likely to achieve growth and sustain competitiveness.

### 3. Digital Convenience

Digital convenience has been identified as a substantial aspect when it comes to spending pleasing times and keeping customers coming back in the contemporary business arena. Research has proven that various attributes, including decision-making and accessibility, significantly impact customer retention and advocacy [16]. Companies that deliver streamlined service processes and achieve operational efficiency further build stronger ties with customers and revel the power of mouth [9]. The Malaysia Digital Economy Blueprint emphasizes the digital tools that can completely shift business efficiency on the one hand, and the demand of the consumers that have always changed, on the other hand [5]. SMEs that borrow from artificial intelligence, automation, and creativity about digital engagement designs will create easy customer experiences, which cover the success position.

### 4. Digital Interaction Quality

The power of effective communication and digital information delivery is crucial in molding customer perceptions and driving engagement. Studies demonstrate that flawless digital interactions significantly enhance customer satisfaction and foster enduring brand loyalty [26]. In 2021, Malaysia boasted 27.43 million internet users, achieving an impressive internet penetration rate of 84.2%, which underscores a robust digital presence among consumers [6]. This extensive embrace of digital services highlights the urgent necessity for SMEs to prioritize exceptional digital interactions to ensure their relevance and competitive edge in the market.

The framework highlights four essential independent variables, Digital Literacy and Skills, Product Innovation, Service Convenience, and Digital Interaction Quality, that collaboratively boost Customer Engagement, ultimately acting as the driving force behind enhanced Business Performance.

Figure 1.0 below is the **Theoretical Framework** for this study.

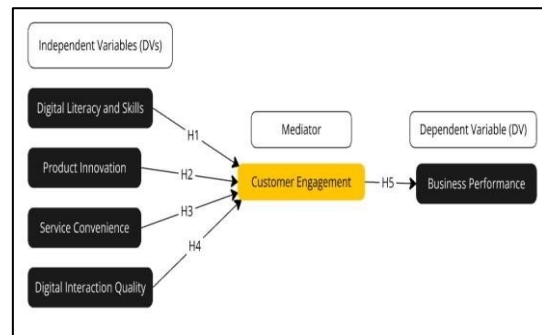


Figure 1.0: Theoretical Frameworks for Customer-Driven Digital Transformation: The Impact of Digital Business Model Innovation on SME Success in Malaysia

## III. RESEARCH METHODOLOGY

This study employs a quantitative approach, and this research uses systematic techniques to examine the finer details of how metaphorically the Digital Business Model Innovation (DBMI)

relates to SME performance in Malaysia, with particular emphasis on the F&B industry. In this study, the use of 300 survey respondents ensures the precision and accuracy of the research, thus ensuring the calculated actionable insights. The systematic methodology is aimed at ensuring that SMEs are strategically guided to be able to base a digital transformation on active customer engagement. By adopting customer-centric digital innovations, SMEs can improve operational efficiency, deepen customer loyalty, and accomplish growth. This practical and results focused approach helps SMEs develop a clear, data-backed strategy to thrive in a fast-changing, competitive, and tech-driven market.

**IV. FINDINGS AND DISCUSSION A. MULTIPLE REGRESSION ANALYSIS:**

The regression analysis yields critical insights into the determinants influencing the performance of SMEs within Malaysia's food and beverage sector. With an R-squared value of 58.5%, the model exhibits robust explanatory power, highlighting the pivotal roles of Digital Interaction Quality and Customer Engagement in the success of SMEs.

The F-statistic (59.44,  $p < 0.001$ ) affirms the overall significance of the model, accentuating the considerable influence of essential digital business components. Below are the main findings:

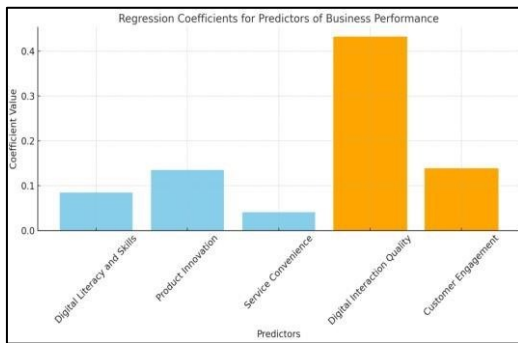


Figure 4.1: Impact of Predictors on Business Performance: Regression Coefficients Analysis

**a. Digital Literacy & Skills (p = 0.164):**

While positively correlated with business performance, the effect is statistically insignificant, indicating a necessity for further integration with supplementary business strategies.

**b. Product Innovation (p = 0.050):**

Demonstrates a borderline significant effect, underscoring the critical importance of ongoing innovation to enhance SME competitiveness.

**c. Service Convenience (p = 0.571):**

This lacks statistical significance, implying that service alone does not significantly enhance business success.

**d. Digital Interaction Quality (p < 0.001):**

Recognized as the most significant predictor, illustrating that high-quality, seamless digital interactions are vital for customer satisfaction and organizational growth.

**e. Customer Engagement (p = 0.018):** Serves a vital mediating function, underscoring the necessity for interactive content, responsive feedback mechanisms, and strategic engagement initiatives.

This study is a testament to the efficacy of Digital Interaction Quality and Customer Engagement in SME segment. The success of SMEs will depend on digital technologies that have been well defined, imaginative technologies, data-based decision-making, and a customer-specific type of interaction to create lasting success. The investments of SMEs in the fields of digital education and the adoption of a culture of innovation are the main requirements in the journey to maintaining relevancy and competitiveness in the country's digital economy that is in constant flux. Through digital morph for businesses focusing on customer needs, they increase their potential of sustainable growth and consequently achieving higher competitiveness over their competitors.

As the businesses that get to the heart of their customer's needs, they are thus able to provide the kind of experiences that keep buyers devoted and bring success. This kind of business approach not just makes the SMEs better in the market but also makes a good base for the companies that will have a long life.

**B. PEARSON CORRELATION ANALYSIS:**

This data analysis reveals the core linkages that can be drawn through the implementation of the Digital Business Model Innovation (DBMI) process and their impact on SMEs' customer sentiment. This study shows the advantages of digital transformation and why they could be the key driver in today's market.

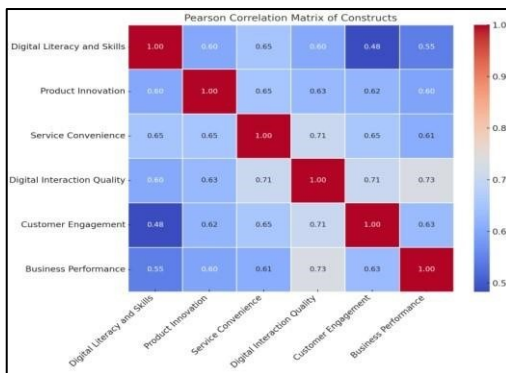


Figure 4.2: Pearson Correlation Analysis Customer-Driven Digital Transformation: The Impact of Digital Business Model Innovation on SME Success in Malaysia

**a. Digital Interaction Quality: The Biggest Driver of Success**

**Digital Interaction Quality** is the strongest predictor of SME growth - a high correlation of **0.73** presents proof. It means that users are highly reliant on easy, user-friendly, and responsive digital platforms for the efficient running of the business and their pleasant experience. SMEs adopting fast and faultless digital connections will

experience high interaction, commitment, and ultimately a longer period of business operation.

**b. Customer Engagement: The Key to Stronger Business Performance**

A strong 0.63 relationship of Customer Engagement and Business Performance points out that the active participation of customers has a highly influential effect on success. Personalized digital experiences and interactive content are the most effective tools for engaging customers, the two ways to produce the highest degree of customer retention and customer loyalty to the brand. Small and medium-sized SMEs need to engross in making genuine and real customer connections to elevate their business to compete successfully against other SMEs.

**c. Service Convenience: Keeping Customers Satisfied and Loyal**

Service Convenience, which is characterized by correlations of 0.61 (Business Performance) and 0.71 (Digital Interaction Quality), is very important to create digital experiences, that are not prolonged and are without complications. SMEs through the reduction of friction, faster response and trouble-free service, can provide services that are both satisfying to customers and can be a valuable addition in the competitive market.

**d. Product Innovation and Digital Skills: Valuable but Need Integration**

Product Innovation (0.60) along with Digital Literacy & Skills (0.55) greaten the prospects of business but the best results come about when they are harmonized with customer engagement and the digital interaction quality. SMEs must join their product and digital training activities with customer needs and seamless digital experiences for the most significant influence. The strong links between these main components such as Service Convenience and Digital Interaction Quality (0.71) communicate clear evidence that a properly imbedded digital

strategy results in better business outcomes. SMEs by integrating engagement, innovation, and service quality will be able to maintain their success in the digital economy.

## V. KEY FINDINGS

This research underlines the importance of Digital Business Model Innovation (DBMI) in increasing the efficiency of small and medium-sized enterprises (SMEs) in Malaysia. The leading of consumers lies in supporting the brand and securing for the prosperous development of the business. Regarding the ongoing pace at which digital economy is transforming, organizations have shifted from only having the option of digital shift to looking at it as a necessary strategic advantage for the pursuit of sustainable growth and the maintenance of a competitive edge. This research paper provides strong evidence that Digital Business Model Innovation (DBMI) is a key element of SMEs' performance, where Digital Interaction Quality, Customer Engagement, and Service Convenience have been found to be the main factors of success.

According to the results of the Multiple Regression Analysis, Digital Interaction Quality ( $p < 0.001$ ,  $r = 0.73$ ) is, first and foremost, the predictor of SME performance which implies the necessitous requirement of the technological channels that seamlessly and easily satisfy the customer and at the same time, create high customer engagement. In addition to that, Customer Engagement ( $p = 0.018$ ,  $r = 0.63$ ) works as a key mediator in this case, stressing out the importance of individualized and interactive digital experiences in gaining continuous business growth. Service Convenience ( $p = 0.571$ ,  $r = 0.61$ ), although beneficial, proves to be more fruitful when it integrates with the remarkable interaction and client engagement strategies. Moreover, Product Innovation ( $p = 0.050$ ,  $r = 0.60$ ) and Digital Literacy & Skills ( $p = 0.164$ ,  $r = 0.55$ ) display encouraging signs but necessitate a strategic

connection with extensive digital transformation projects to generate significant impacts.

Digital transformation, in short, is the full-scale incorporation of digital technologies into every structure that entails our SME, and this is not only about exercising digital tools. It is to some extent driven by the indispensable business intention of responding to changing customer expectations and meeting the pace of technological and market advancements. Given the increasing stress of competition and fluctuations of consumer habits, intelligent SMEs should pay their attention mainly to the customer-difficulty digital transformation as the primary way of being in demand in the present market and developing further. Focusing on enhancing digital channels with highest quality standards. Nowadays, everybody understands that innovative digital platforms with the highest user-level performance are not an option anymore. They have turned into a necessity. Realizing a complete set of easy, real-time, and intuitive online interactions will not just raise customer satisfaction but also boost their engagement and ensure winning results for the company. To Enhance the Customer Connection. Companies will have to go beyond the traditional marketing techniques, which they can use a personal, data-informed approach, which is engaging in digital media. The brands which promote direct and engaging interactions with clients not only show brand advocacy but also promote trust and loyalty and achieve competitive edge.

Using the Most convenient Services. In a rapidly changing and digital economy, consumers increasingly want effective, easy, and 24/7 hassle-free shopping. This can be achieved by SMEs offering improved operations, efficient service delivery, and involvement-centered methods to reach as many clients as possible and ensure repeat business. Utilizing product innovation. While SMEs must keep an eye on the market developments, and create innovative, technology-based products which fall into the category of customer preferences and market trends,

innovation is vital for an organization to stay relevant and be different in a highly competitive marketplace.

Thus, gaining the cutting-edge advantages by building digital capabilities will be acquired. Enabling workers with well-digital literacy and relevant advanced skills also plays a key role in bringing the value out of digital business model innovation (DBMI). Businesses that continuously develop their teams and foster data-centric approach in decision-making will be empowered to gain efficiency in their operations and be more resilient in the long-term. Indeed, such SMEs should be guided by new technological changes and customer demands to remain afloat and protect their businesses against possible disruption that could come with time, optimize growth, and secure a competitive edge within Malaysia's digital-first economy.

## VI. CONCLUSION

The results of this study, through overlooking the typical digital transition towards better strategic planning, and customer-centric digital transformation, emphasize the 'criticality' of such approach by SMEs. Focusing on revolutionary digital experiences, pre-emptive customer engagement, and remarkable service quality, SMEs could unbelievably strengthen their ability to explore new market opportunities, to promote innovation, and in the end, to keep these market advantages for a longer time. In this progressively digitalized economy, the players who adopt holistic, digitally empowered business models will not only weather currents but will also lead in the development of the future entrepreneurship among Malaysia.

Where the focus of the work is directed on the food and beverage (F&B) sector, the effects of the findings are narrow, covering beyond this sector. This research highlighted fundamental success factors, the importance of digital literacy, service convenience, product innovations, and high-

quality digital interactions, which also relate to the other SME sectors like healthcare, education, logistics, and retail services. The Digital Business Model Innovation (DBMI) framework proposed in this paper is to address these similar challenges in customer engagement, technology adoption, and service provision in sectors such as healthcare, retail, logistics, and education. It enhances the applicability of the conclusions drawn in the study and facilitates the contribution to knowledge the research was designed to make.

In conclusion, this study furnishes a data-driven basis for policymakers, SME executives, and industry stakeholders to devise more inclusive and efficacious digital transformation strategies. Subsequent research endeavors should explore the long-term effects of DBMI initiatives across diverse sectors, while persistently refining methodologies that empower SMEs to flourish within a rapidly evolving, digitally oriented global economic landscape.

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