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EXPLORE LEVERAGING TECHNOLOGY TO TAKE ON RETAIL TITANS IN JEMPOL

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ABSTRACT

The increasing dominance of large retail chains poses significant challenges for small retailers, particularly in semi-urban areas such as Jempol, Negeri Sembilan. This study explores how small retail businesses leverage technology to remain competitive against larger retail players. Adopting a qualitative research design, semi-structured interviews were conducted with owners and employees of selected small retail stores in Jempol. The data were analysed using thematic analysis to identify recurring patterns related to technology adoption and competitive strategies. The findings reveal that digital marketing, online sales platforms, and basic data analytics play a crucial role in enhancing operational efficiency, expanding market reach, and strengthening customer relationships. Despite resource constraints and limited technological expertise, small retailers demonstrate adaptability by selectively adopting affordable and accessible technologies. The study highlights the importance of strategic technology utilisation, customer-centric approaches, and continuous innovation in sustaining competitiveness. This research contributes to the limited empirical literature on technological adoption among small retailers in small-town contexts. It provides practical insights for policymakers and practitioners seeking to support the digital transformation of small businesses.

Keywords: Digital Marketing, Data Analytics, Consumer, Technologies, Increasing Market, Innovation, Agility, Small Shops, Jempol, Interview, gc

INTRODUCTION

Retailers compete fiercely in Jempol's dynamic retail sector, which is noted for its rich ethnic diversity and strong economy. The following article will look at how technology might help small stores compete effectively with larger retail titans. The purpose of this research is to examine how technology may be used to sustain company rivalry, solve the issues that small retailers confront, and make future recommendations for keeping a competitive advantage in the face of larger retailers.

The retail company, particularly in tiny towns like Jempol, is undergoing a dramatic upheaval, fueled by digital technologies. The growth of e-commerce, multichannel shopping, and the growing need for personalized consumer experiences have all changed the competitive environment. These shifts have increased the pressure on retailers while also creating new chances for innovation and growth. However, given larger retailers' resources and expertise, small merchants may find it difficult to navigate this digital change.

The objective of this study is to look into the obstacles that small shops confront in maintaining their business compete with larger merchants in Jempol. It will investigate how technology might be used as a strong tool to overcome these issues, allowing small merchants to compete on an equal footing. The study will also look into potential proposals for using technology to improve small merchants' competitiveness versus larger stores.

The main problem statement of this study is that small merchants in Jempol must adopt and successfully use technology to compete with larger retailers. This entails assessing the existing status of technology adoption among small merchants, finding gaps and issues, and suggesting solutions to overcome these challenges.

This research focuses on technology, especially how it may be used to increase the competitiveness of small merchants. This involves researching the most recent technical developments and advances, including cloud computing, AI, and data analytics, and determining how they may be used to improve retail operations, customer service, and marketing strategies. By investigating the impact of technology on retail competitiveness, this essay hopes to give useful insights and ideas for Jempol's small businesses. It will emphasize the necessity of embracing digital transformation and provide practical guidance on how to use technology to remain competitive with larger merchants.

LITERATURE REVIEW

Theory

The **Triple Bottom Line (TBL)** framework, introduced by Elkington (1997), is a widely recognised concept in sustainability and business studies. The framework emphasises that organisational performance should be evaluated not only in terms of economic outcomes (profit) but also through social (people) and environmental (planet) dimensions. By integrating these three dimensions, the TBL framework promotes a more holistic understanding of business sustainability beyond short-term financial performance.

Subsequent studies have expanded and refined the application of the TBL framework across various industries. Tseng et al. (2020), in their comprehensive literature review, highlight the growing relevance of TBL in addressing sustainability challenges, particularly following major environmental and economic crises. Their review also identifies gaps in existing research, especially concerning the integration of social and technological dimensions within the TBL framework. This suggests that while TBL has been widely adopted, its application in operational and technological contexts remains underdeveloped.

Importantly, Tseng et al. (2020) emphasise the need to bridge the gap between theoretical discussions of TBL and practical business implementation. This includes exploring how technological innovation can support sustainable practices and improve business performance across economic and social dimensions. In the context of retail businesses, technology adoption can be viewed as a mechanism that supports economic sustainability through efficiency gains, while also enhancing social value through improved customer engagement and community interaction.

In this study, the TBL framework provides a useful theoretical lens to examine how small retailers leverage technology to balance competitiveness and sustainability. By focusing primarily on the economic and social dimensions of TBL, the framework helps explain how technology adoption contributes to business survival and competitiveness in small-town retail environments.

The Role of Sustaining the Business Competition with Larger Retailers In Small Towns

Small retailers operating in small towns such as Jempol often face intense competition from larger retail chains with superior financial resources, economies of scale, and established brand recognition. To remain competitive, small businesses must strategically utilise their unique strengths, including close customer relationships, local market knowledge, and operational flexibility.

The literature highlights the critical role of **technology** in enhancing the competitive capacity of small retailers. Digital tools such as e-commerce platforms, social media marketing, and customer communication applications enable small businesses to extend their market reach and strengthen customer engagement. Community participation, in particular, has been identified as a key differentiating factor for small retailers, as it fosters customer loyalty and long-term relationships within local markets (Sleitere, 2023).

E-commerce further enhances competitiveness by offering convenience and access to customer data, allowing small retailers to tailor their offerings and marketing strategies more effectively (Breadstack, 2023). Through personalised interactions and targeted promotions, small retailers can improve customer satisfaction and retention, which are essential for sustaining competitiveness against larger retailers.

Another important strategy is **niche market positioning**. By focusing on specialised products or services that cater to specific customer segments, small retailers can differentiate themselves in crowded retail markets (Hoang, 2022). This differentiation reduces direct competition with large retailers and strengthens brand identity within targeted segments.

Overall, the literature suggests that technology-enabled customer engagement, community-based strategies, and niche positioning are critical mechanisms through which small retailers can sustain competitiveness in small-town retail environments.

The Challenges in Sustaining the Business Competition with Larger Retailers

Despite the potential benefits of technology adoption, small retailers face significant challenges in sustaining competition with larger retailers. Resource disparities remain a major constraint, particularly in terms of financial capital, technological expertise, and operational capacity. Larger retailers benefit from strong brand recognition and consumer trust, making it difficult for small businesses to attract and retain customers in competitive markets.

Previous studies indicate that small and medium-sized businesses (SMBs) encounter multiple barriers to technology adoption, including limited financial resources, lack of skilled personnel, and difficulties integrating new technologies into existing operations (Evans, 2023). These challenges are particularly pronounced in small-town contexts, where access to training and technical support may be limited.

Nevertheless, digital technology has emerged as a significant enabler for SMBs, offering cost-effective solutions to overcome some of these limitations. Technologies such as e-commerce platforms and digital marketing tools allow small retailers to reach broader markets and compete more effectively with larger firms (Wham, 2023). The adoption of omnichannel strategies has further enabled SMBs to enhance operational efficiency and customer reach without substantial capital investment.

The literature suggests that strategic and selective adoption of technology is key to overcoming resource constraints and sustaining competitiveness. Rather than replicating the advanced technological systems of large retailers, small businesses benefit from adopting technologies that align with their operational capabilities and

immediate business needs. This approach not only addresses short-term competitive challenges but also supports long-term business sustainability in the retail sector.

METHODOLOGY

This study employed a qualitative research approach to explore how small retailers in Jempol utilise technology to compete with larger retail chains. A qualitative design was deemed appropriate due to the exploratory nature of the study and its focus on understanding participants' experiences, perceptions, and strategies in depth.

Data were collected through semi-structured interviews with representatives from two small retail businesses operating in Jempol, Negeri Sembilan. The participants were selected using purposive sampling, as they possessed direct experience in managing small retail operations and engaging with technology in a competitive market environment. Each interview lasted between 30 and 45 minutes and was conducted online using Google Meet to ensure accessibility and flexibility.

The interview questions focused on key areas, including:

1. Types of technology adopted in daily business operations
2. Perceived benefits of technology in competing with larger retailers
3. Challenges faced in technology adoption
4. Future plans related to digital transformation

All interviews were audio-recorded with participants' consent and transcribed verbatim. The data were analysed using thematic analysis, following a systematic coding process involving data familiarisation, initial coding, theme development, and theme refinement. This approach enabled the identification of recurring patterns and meaningful themes related to technology use and competitiveness.

To enhance trustworthiness, the study applied credibility measures such as consistent interview protocols and careful data verification during transcription. Although the sample size was small, the findings provide rich contextual insights relevant to small-town retail environments.

FINDINGS AND DISCUSSION

Overview of Data Collection and Analysis

This study adopted a qualitative research approach to examine how small retailers in Jempol leverage technology to remain competitive against larger retail chains. Data were collected through semi-structured interviews with employees from two small retail businesses—Nen Mart and Moon Trading—located in Jempol, Negeri Sembilan. Participants were selected using maximum variation sampling to capture diverse operational perspectives and experiences related to technology use in small retail contexts.

All interviews were conducted online via Google Meet to ensure accessibility and flexibility. Each interview lasted approximately 30–45 minutes and was audio-recorded with participants' consent. The recordings were transcribed verbatim and analysed using thematic analysis. The analytical process involved data familiarisation, initial coding, categorisation, and theme development. This systematic approach enabled the identification of recurring patterns and meaningful insights related to technology adoption, operational efficiency, and adaptive strategies among small retailers.

Key Empirical Findings

The thematic analysis revealed three key themes that explain how small retailers in Jempol utilise technology to sustain competitiveness in a retail environment dominated by larger players.

Adoption of Digital and Online Technologies

The findings indicate that small retailers actively adopt basic digital and online technologies such as social media platforms, online messaging applications, and simple e-commerce channels. These technologies are primarily used for product promotion, customer communication, and maintaining market visibility.

Participants emphasised the importance of social media platforms, particularly Facebook and WhatsApp, in engaging customers and supporting daily business operations. One participant explained:

“Nowadays, if we do not update on Facebook or WhatsApp, customers think our shop is not active. Posting online helps us stay connected with them.” (Participant 1)

Another participant highlighted the role of online platforms in extending market reach beyond the physical store:

“We only have one shop here in Jempol, but online we can reach customers from other areas. It helps us compete even though we are small.” (Participant 2)

These findings suggest that digital and online technologies function as cost-effective tools that enable small retailers to enhance visibility and customer engagement without requiring the extensive resources typically available to larger retail chains.

Technology for Operational Efficiency

Beyond marketing and communication, technology was found to play an important role in improving operational efficiency. Participants reported using basic digital tools for inventory recording, sales tracking, and digital payment systems. These tools helped streamline daily operations, reduce manual workload, and minimise errors.

One participant noted the operational benefits of adopting simple digital tools:

“Before this, we wrote everything manually. Now with simple apps and online banking, it is faster and easier to track sales.” (Participant 1)

Another participant explained how technology contributed to smoother daily operations:

“Using digital payment and stock records helps us avoid mistakes. It saves time, especially during busy hours.” (Participant 2)

Although advanced technologies such as artificial intelligence or fully automated systems were not widely adopted, participants perceived basic digital solutions as sufficient to meet their operational needs. This selective approach reflects a practical response to financial and technical constraints while still achieving meaningful efficiency gains.

Challenges and Adaptive Strategies

Despite recognising the benefits of technology, participants identified several challenges associated with technology adoption. These challenges include limited digital skills, financial constraints, and a lack of access to technical support or formal training.

One participant expressed concerns regarding digital competency:

"Sometimes we want to try new systems, but we are not confident because we do not really understand how to use them." (Participant 1)

Financial limitations were also highlighted as a significant barrier:

"Some systems are too expensive for small shops like us. We need to think carefully before spending money on technology." (Participant 2)

To address these challenges, small retailers adopted adaptive strategies such as self-learning, gradual implementation of technology, and reliance on free or low-cost digital applications. These strategies enabled them to continue improving their operations without placing excessive strain on limited resources.

Discussion of Findings

The findings of this study demonstrate that technology plays a crucial role in supporting the competitiveness of small retailers in Jempol. Consistent with existing literature on small and medium-sized enterprises, the results indicate that even basic technology adoption can enhance business performance when aligned with customer needs and operational priorities.

The strong emphasis on digital marketing and online engagement highlights the importance of customer-centric strategies in small retail contexts. By leveraging social media and messaging platforms, small retailers are able to maintain close relationships with customers and offer more personalised communication, thereby partially offsetting the scale advantages of larger retail chains.

Furthermore, the selective adoption of technology for operational efficiency reflects an incremental and context-driven approach to digital transformation. Rather than pursuing advanced technological sophistication, small retailers prioritise affordable and manageable tools that deliver immediate operational benefits. This finding reinforces the view that technology adoption among small businesses is driven primarily by practicality and necessity.

Overall, the findings suggest that technology functions as a strategic enabler rather than a substitute for traditional retail practices. When applied appropriately, technology enhances efficiency, strengthens customer engagement, and supports the long-term sustainability of small retailers operating in highly competitive environments.

3.4 Trustworthiness and Validity

Several measures were undertaken to ensure the trustworthiness and validity of this qualitative study. Credibility was enhanced through the use of consistent interview protocols and careful verification of interview transcripts. Dependability was supported by systematic documentation of the data collection and thematic analysis procedures.

Confirmability was addressed by maintaining transparent records of coding decisions and theme development, thereby reducing the influence of researcher bias. Transferability was supported by providing detailed contextual information regarding the research setting, participants, and analytical procedures, enabling readers to assess the applicability of the findings to similar small retail contexts.

Through these measures, the study offers credible and reliable insights into how small retailers in Jempol leverage technology to compete with larger retail chains.

CONCLUSION

This study examined how small retailers in Jempol, Negeri Sembilan, leverage technology to remain competitive in a retail environment dominated by larger chains. The findings demonstrate that technology plays an important role in shaping the competitive practices of small retailers, particularly through digital marketing, online communication, and basic operational technologies. These tools enable small businesses to enhance customer engagement, improve operational efficiency, and extend market reach despite limited resources.

The study highlights that technology adoption among small retailers is largely incremental and strategic rather than technologically sophisticated. Small retailers prioritise affordable and accessible digital solutions that address immediate business needs, reflecting a pragmatic approach to digital transformation. In addition, collaboration, customer-centric strategies, and adaptive learning emerged as important factors that support competitiveness alongside technology use.

From a practical perspective, the findings suggest that small retailers can strengthen their competitive position by selectively adopting digital tools that align with their operational capabilities and customer expectations. Policymakers and business support agencies may also use these insights to design targeted training and support programmes that enhance digital skills among small retailers, particularly in semi-urban and rural contexts.

Overall, this study contributes to the limited empirical literature on technology adoption among small retailers in small-town settings. While the findings are context-specific, they provide a useful foundation for future research to explore technology-driven competitiveness across different retail environments and to examine how small businesses can sustain growth in an increasingly digital retail landscape.

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