**RESEARCH ARTICLE**

**PHYSICAL STORE OWNERS’ PERCEPTION ON E-COMMERCE IN SAN PABLO CITY: INPUT FOR E-COMMERCE ADOPTION**

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**ABSTRACT**

The purpose of this research is to conduct an analysis of the factors that prevent owners of physical stores from adopting e-commerce and to make suggestions for how those owners can improve their level of readiness and effectiveness in the digital market. Organizational readiness was shown to be the most significant factor in predicting e-commerce adoption among small and medium-sized businesses (SMEs) in the region, according to the findings of a study that employed a sample of one hundred owners of physical businesses in San Pablo City. E-commerce adoption is also influenced by a number of other elements, including perceived value and usability, digital skills, logistics and supply chain management, and online commerce security. According to the findings, owners of physical stores can maintain their competitive advantage by implementing efficient management methods, upgrading their hardware and software systems, purchasing faster internet access, and receiving training and support to increase their preparation for digital commerce. The research underlines the prospects for owners of physical stores to adapt and innovate in the current digital era, and it suggests that store owners combine their offline and online presences in order to maximize their resources and increase their level of competition. This research’s originality and usefulness reside in the fact that it offers actionable recommendations to owners of small businesses on how they might handle the problems and opportunities presented by the digital market.

**KEYWORDS**

physical store, e-commerce, adoption, digital market, organizational readiness

**1. INTRODUCTION**

The rapid growth of online shopping had a profound impact on the retail sector, pushing conventional businesses comprised of physical spaces to adapt in order to remain competitive in the new retail environment (McKinsey, 2020). By April 2020, online revenue was on the rise, and it was clear that this trend would continue in the post-quarantine world. Online shopping offered convenience and ease, and businesses that wanted to succeed, especially in eCommerce, needed a certain level of motivation (McKinsey, 2020). To succeed in the online marketplace, businesses needed to focus on their target audience, leverage social media networks, and build trust with customers by providing quality content and excellent customer service (McKinsey, 2020). The expression "e-commerce," or "electronic commerce," refers to the online purchasing and reselling of goods and services, and it has grown in popularity in recent years as more people use the Internet for shopping and conducting business (McKinsey, 2020). There are various forms of e-commerce, including business-to-consumer (B2C) e-commerce, business-to-business (B2B) e-commerce, consumer-to-consumer (C2C) e-commerce, mobile commerce (m-commerce), and social commerce (McKinsey, 2020). These different forms of e-commerce have reshaped the way people shop and do business.

The evaluation identified several challenges faced by physical store owners in adapting to e-commerce. One of the major obstacles was the high cost of establishing an online presence, including website development and digital marketing (J. Wertz, 2018). Additionally, many traditional physical stores lacked the technical expertise and resources needed to effectively manage an e-commerce platform (J. Wertz, 2018). Other challenges included the need for additional personnel to handle online orders and consumer skepticism about online transactions (J. Wertz, 2018).

E-commerce platforms had distinct advantages over physical stores, such as reduced operating costs, a larger customer base, and the ability to offer a wider variety of products (McKinsey, 2020). E-commerce allowed consumers to shop from any location, at any time, and on any device, making it challenging for physical store proprietors to compete (McKinsey, 2020). In San Pablo City, the rise of online shopping presented a significant challenge for physical store owners who needed to adapt to changing consumer behavior and the growing dominance of e-commerce (McKinsey, 2020). Many of these owners lacked the understanding and resources required to effectively compete in the digital marketplace (McKinsey, 2020).

To address these challenges, an e-commerce adaptation strategy was necessary (antuit.ai, 2022). This strategy aimed to help physical store proprietors in San Pablo City maximize the benefits of e-commerce. It included steps such as establishing an online presence, developing an e-commerce platform, creating digital marketing campaigns, managing online orders, and fostering consumer trust in online transactions (antuit.ai, 2022). Compliance with legal and regulatory requirements, cybersecurity, and the need for technological expertise and resources were also addressed in the strategy (antuit.ai, 2022).

The research conducted in San Pablo City aimed to understand how physical store owners perceived e-commerce and the challenges they faced in adapting to it (Elam and Harris, 2010). Surveys, interviews, and focus groups were utilized to gather data on the attitudes and preparedness of physical store owners regarding e-commerce (Elam and Harris, 2010). The study also sought to determine whether these
perceptions varied based on the type of business structure (Elam and Harris, 2010).

The research findings revealed that physical store owners in San Pablo City faced difficulties in adapting to e-commerce due to a lack of digital skills and limited access to capital (Elam and Harris, 2010). The study highlighted the need for interventions to promote digital skills development, improve access to finance, and enhance logistics infrastructure to support e-commerce growth (Elam and Harris 2010).

The study identified a significant knowledge gap in the understanding of e-commerce among physical store owners in San Pablo City (de Leon and Vergara, 2020). Many lacked the resources and expertise needed to effectively compete in the online marketplace (de Leon and Vergara, 2020). This knowledge gap posed a risk to their businesses, leading to reduced sales and competitiveness (de Leon and Vergara, 2020). The research aimed to create an e-commerce adaptation plan tailored to the specific needs and challenges faced by physical store owners in San Pablo City (Bautista, 2021). The plan included strategies for establishing an online presence, developing marketing campaigns, offering online customer service, and managing online orders (Bautista, 2021). It also addressed compliance with legal requirements and the importance of technological expertise (Bautista, 2021).

Ultimately, the goal of the research and the resulting e-commerce adaptation strategy was to help San Pablo City's physical store owners survive and thrive in the digital market (Cruz 2022). By understanding the perceptions and challenges they faced regarding e-commerce, tailored strategies could be developed to ensure success (Cruz 2022). This approach aimed to revitalize the retail industry in San Pablo City and enable it to compete effectively in the digital marketplace.

2. LITERATURE REVIEW

The country with the biggest potential for growth was the Philippines, where the internet economy accounted for about 2.1% of GDP (Gross Domestic Product). In San Pablo City alone, there were about 7,157 businesses. Improving the contribution of physical store owners to the San Pablo City economy at that point was one of the goals of the Vision E-commerce Adoption Plan.

Adopting e-commerce offered many benefits. Businesses that adopted innovative methods to make the most of their resources could gain from e-commerce in terms of operations and performance (Lee et al., 2015). Additionally, it has been claimed that e-commerce in general reduces costs and enhances customer service (Quimba and Calzo Jr. 2019). However, proprietors of physical establishments had to modify their business models in order to adjust to the predicted growth of the e-commerce age.

According to Oudan, "buying and selling goods and services over the Internet and using computer systems to improve the overall effectiveness of a company" are the definitions of e-commerce (Oudan, 2010). According to e-commerce is often just referred to as doing business online (Ofori et al., 2002). On the other hand, e-commerce, according to it is "the use of technological resources to help define and develop new ways to solve business problems (Ofori et al., 2002).

E-commerce benefited companies in a variety of ways. For instance, SMEs might gain from services that are offered around-the-clock, directly address consumers' requirements, foster connections with them, and share information with them (Gunasekaran et al., 2002). Additionally, they might boost productivity, boost sales, and make financial savings (Awa et al., 2015; Faloye, 2014). Ratnasekaran discovered in 2009 that using e-commerce was crucial for small firms to obtain competitive and strategic benefits.

Electronic commerce and the online economy The Organization for Economic Cooperation and Development (OECD) defined e-commerce broadly as "the exchange of goods and services between enterprises, households, individuals, governments, and other public or private groups through computer-mediated networks." This definition was used by PSA. These networks were used to purchase the goods and services, but the ultimate payment and delivery might take place online or offline. The same PSA definition for e-commerce was used by the DIT: "e-commerce is the sale of goods or services over electronic systems, such as the Internet Protocol-based systems and other digital connections." Nearly all businesses in the Philippines were micro, small, or medium-sized enterprises (MSMEs). The government of the Philippines knew that MSMEs needed to be able to use e-commerce well in order to help regional and national economic growth.

Small and medium-sized enterprises (SMEs), also referred to as small and medium-sized businesses (SMBs), are independent businesses that are not subsidiaries of larger organizations. Small and medium-sized firms make up 98% of all businesses in Saudi Arabia despite having a negligible impact on the nation’s GDP (SMEA, 2017). The Saudi Arabian Vision 2030 gave priority to improving the effectiveness and performance of SMEs; however, there were obstacles due to the rising costs of expatriate labor, taxes, wages, and other services.

Recent changes in consumer preferences for online buying had increased the perception that implementing e-commerce was a crucial corporate strategy. The move toward internet shopping was caused by a number of factors, including simplicity, accessibility, and cost. More and more customers were looking for products that would enable them to make purchases whenever they pleased, from the comfort of their homes. This trend put pressure on owners of physical establishments to use e-commerce to be up to date and competitive.

Digital Skills were essential. Owners of physical stores' perceptions of e-commerce adoption were influenced by their level of digital knowledge and awareness. A person's opinion of e-commerce adoption may improve if they have appropriate digital capabilities, but the converse may also be true if they don't. Lack of digital abilities may cause problems with website management, online marketing, and client interaction.

Another element that affected how physical store owners felt about the introduction of e-commerce was competition. The pressure to be competitive in a digital market could make it seem more important for companies to implement e-commerce strategies. Brick-and-mortar store owners now face more competition and lower profits as a result of online retailers' disruption of the established business model. Because of this, many owners of physical establishments have found it necessary to implement e-commerce.

The function of logistics and supply chain was vital. The introduction of e-commerce was successful because of efficient supply chain management and logistics. The difficulty of logistics and supply chain management may have an impact on how physical business owners see the adoption of e-commerce. To make sure that customers received their orders on time, tangible store owners needed a reliable logistics and supply chain management system. This covered order fulfillment, inventory management, and transportation. But for owners of physical stores, implementing an effective logistics and supply chain system may be tough, making e-commerce adoption scary.

The desire of consumers for online shopping and digital experiences has increased, making the adoption of e-commerce by owners of physical stores a vital business strategy. The view of physical store owners about the adoption of e-commerce may depend on their level of digital skills and expertise, the competitiveness among online retailers, and logistics and supply chain management. Physical business owners to successfully implement e-commerce, it was crucial to address these factors.

One important factor was how ready physical store owners were to accept e-commerce. The readiness of physical business owners to adopt e-commerce is a key element in the effective implementation of an e-commerce adoption plan. The term "readiness" referred to a business plan for e-commerce implementation by owners of physical stores. Computer skills were quite important. An important determinant of how prepared physical store owners were to integrate e-commerce was their level of digital expertise and knowledge. People who had adequate digital abilities and knowledge were more inclined to see the adoption of e-commerce as a workable alternative.

The likelihood that proprietors of physical stores will use e-commerce may depend on how valuable they believe it to be. If physical business owners perceived e-commerce as a beneficial tool for boosting sales and growing their customer base, they were more likely to implement it. Another element that can affect whether or not proprietors of physical stores use e-commerce is how usable it is thought to be. Owners of physical stores who thought e-commerce was easy to use and implement were more likely to use it.

It was important to have access to resources. Owners of physical stores may not be as ready to adopt e-commerce depending on the availability of resources like money and equipment. E-commerce adoption was more frequent among owners of physical stores who had access to resources including money for website construction and upkeep as well as high-speed internet.

Physical store owners' ability to successfully implement e-commerce was influenced by a number of factors, including rising sales, better consumer involvement, effective supply chain management, cost savings, and brand...
reputation. An important metric of e-commerce’s efficiency was its capacity to boost sales. Due to their ability to reach a larger audience and provide a flawless online shopping experience, physical store owners that adopted e-commerce were likely to see a rise in sales.

2.1 Theoretical Framework

The success of e-commerce adoption was also influenced by increased customer engagement. The use of e-commerce may make it possible for owners of physical stores to interact with customers via social media and other digital channels, boosting brand recognition and patronage.

3. METHODOLOGY

The research in question utilizes a quantitative research design, employing a survey questionnaire to gather data from 100 physical business owners in San Pablo City. This approach is apt for examining the factors influencing consumer behavior in relation to e-commerce adoption and its impact on business success. The choice of respondents, consisting of store owners and managers with experience in small to medium-sized businesses, is logical as they are likely to provide valuable insights into the subject matter. Given the constraints posed by the ongoing pandemic and health protocols, convenience sampling is employed to select respondents. While this approach is expedient, ensuring sample representativeness remains crucial. The data gathering process is well-structured, involving the creation of a questionnaire, data compilation, and statistical analysis. Ethical considerations, including safeguarding respondent confidentiality, are diligently adhered to. In analyzing the data, various statistical methods, such as frequency, percentage, mean, and Kruskal-Wallis H Test, are employed to effectively address the research objectives. Overall, this research design and methodology are thoughtfully chosen to meet the research’s objectives and ethical standards.

4. FINDINGS AND DISCUSSION

The profile of the respondents in terms of the number of years of business operation is represented in table 4. It reveals that the majority of respondents has 11 number of employees with a frequency of twelve (12) and a percentage of fifty-six (56.86%), while minority of the respondents has been in the business for 1 to 5 years of business operation with a frequency of fifteen (15) and a percentage of three point ninety (3.92%).

The profile of the respondents in terms of the type of business structure is represented in table 2. It reveals that the majority of respondents were sole proprietor with a frequency of forty-nine (49) and a percentage of eighty-four point zero four (84.04%), while minority of the respondents were from the incorporation type with a frequency of four (4) and a percentage of fifteen point two six (15.74%).

The profile of the respondents in terms of the type of business is represented in table 1. It reveals that the majority of respondents were from the retail sector with a frequency of twenty-six (26) and a percentage of twenty-five point forty-nine (25.49%), while minority of the respondents were from the hospitality sector with a frequency of three (3) and a percentage of two point fifty-eight (2.58%).

The study’s data reveals that the respondents scored an average of 3.17 for having the necessary technological infrastructure to support e-commerce, indicating that they are approaching readiness. However, they scored higher for having the necessary skills and expertise (3.42), a strong e-commerce strategy and plan (3.41), sufficient financial resources (3.24), and a supportive culture (3.44). These scores suggest that the respondents are generally prepared for e-commerce, with strong capabilities in skills, strategy, financial resources, and organizational culture. Nevertheless, there is room for improvement in terms of technological infrastructure.

These findings align with existing literature on e-commerce readiness, emphasizing its significance for gaining a competitive edge in the e-commerce market (Lee and Kim, 2019). Moreover, a group researcher has highlighted the positive correlation between e-commerce readiness and e-commerce adoption and success (Chauhan et al., 2021). The study also indicates that physical store owners view e-commerce readiness positively. However, it underscores the need for enhanced technological infrastructure to support e-commerce integration with existing business processes and systems. To enhance their readiness, physical store owners should consider upgrading hardware and software systems, improving internet connectivity, and providing training and support. Addressing potential barriers such as financial constraints or a lack of technical expertise is essential for realizing the full potential of e-commerce readiness.

Furthermore, multiple studies emphasize that e-commerce can deliver positive returns on investment (Choudhury et al., 2018; Poddar and Donthu, 2018; Zhang et al., 2020). It can also lead to revenue and profit growth, as well as operational cost reduction and increased efficiency, particularly in areas such as inventory management, order processing, and customer service (Bhattacharya and Sen Gupta, 2020; Cao and Li, 2018). Lastly, e-commerce is noted for offering a high level of security and protection against fraud and cyber theft, a crucial aspect for businesses and customers (Chen and Hu, 2019; Huang et al., 2021; Zhang and Zhang, 2019).

The presented table displays the mean scores of respondents’ perceptions regarding the effectiveness of e-commerce across various indicators. These indicators encompass improvements in customer reach and engagement, increased business sales, enhanced customer experience and satisfaction, provision of valuable insights into customer behavior, competitiveness in the digital age, positive return on investment, significant revenue and profit increases, reduced operational costs and increased efficiencies, provision of actionable data and insights for business decisions, and a high level of security against fraud and cyber theft. The mean scores for these indicators range from 3.12 to 3.58, all of which fall within the verbal interpretation of “Very Effective” or “Highly Effective.” The highest mean score is associated with the improvement of customer reach and engagement, followed closely by the enhancement of customer experience and satisfaction. Slightly lower mean scores are attributed to generating significant revenue and profits, reducing operational costs, and ensuring a high level of security and protection against fraud and cyber theft. This data underscores the perception that e-commerce is a powerful and effective tool for businesses across multiple dimensions, findings that are substantiated by several recent studies.

Table 3: Profile of the Respondents in terms of the Number of Employees

<table>
<thead>
<tr>
<th>Number of Employees</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 or below</td>
<td>49</td>
<td>48.04</td>
</tr>
<tr>
<td>6 to 10</td>
<td>23</td>
<td>22.55</td>
</tr>
<tr>
<td>11 to 15</td>
<td>12</td>
<td>11.76</td>
</tr>
<tr>
<td>16 or above</td>
<td>18</td>
<td>17.65</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4: Profile of the Respondents in terms of the Number of Years of Business Operation

<table>
<thead>
<tr>
<th>Number of Years of Business Operation</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>9</td>
<td>8.82</td>
</tr>
<tr>
<td>1 to 5 years</td>
<td>58</td>
<td>56.86</td>
</tr>
<tr>
<td>6 to 10 years</td>
<td>18</td>
<td>17.65</td>
</tr>
<tr>
<td>More than 10 years</td>
<td>17</td>
<td>16.67</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 5: Perception of the Respondents on E-Commerce in Terms of Readiness

<table>
<thead>
<tr>
<th>Indicators</th>
<th>( \bar{x} )</th>
<th>Verbal Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have the necessary technological infrastructure to support e-commerce</td>
<td>3.17</td>
<td>Approaching readiness</td>
</tr>
<tr>
<td>2. Have the required skills and expertise to manage e-commerce effectively</td>
<td>3.42</td>
<td>Ready</td>
</tr>
<tr>
<td>3. Have a strong e-commerce strategy and plan at place</td>
<td>3.41</td>
<td>Ready</td>
</tr>
<tr>
<td>4. Have the necessary financial resources to invest in e-commerce</td>
<td>3.24</td>
<td>Ready</td>
</tr>
<tr>
<td>5. Have a supportive culture that embraces and values e-commerce initiatives</td>
<td>3.44</td>
<td>Ready</td>
</tr>
</tbody>
</table>

Table 6: Perception of the Respondents on E-Commerce in terms of Effectiveness

<table>
<thead>
<tr>
<th>Indicators</th>
<th>( \bar{x} )</th>
<th>Verbal Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It improves customer reach and engagement</td>
<td>3.58</td>
<td>Highly Effective</td>
</tr>
<tr>
<td>2. It increases business sales</td>
<td>3.21</td>
<td>Highly Effective</td>
</tr>
<tr>
<td>3. It improves customer experience and satisfaction</td>
<td>3.46</td>
<td>Highly Effective</td>
</tr>
<tr>
<td>4. It provides business with valuable insight on customer behavior and references</td>
<td>3.56</td>
<td>Highly Effective</td>
</tr>
<tr>
<td>5. It enables business to stay competitive in today's digital age</td>
<td>3.52</td>
<td>Highly Effective</td>
</tr>
<tr>
<td>6. It generates positive return on investment</td>
<td>3.38</td>
<td>Highly Effective</td>
</tr>
<tr>
<td>7. It generates significant increase in revenue and profits</td>
<td>3.12</td>
<td>Very Effective</td>
</tr>
<tr>
<td>8. It reduces operational cost and increase efficiencies</td>
<td>3.13</td>
<td>Very Effective</td>
</tr>
<tr>
<td>9. It provides actionable data and insights to inform business decisions</td>
<td>3.35</td>
<td>Highly Effective</td>
</tr>
<tr>
<td>10. It offers high level of security and protection against fraud and cyber theft</td>
<td>3.30</td>
<td>Highly Effective</td>
</tr>
</tbody>
</table>

Table 7 of the study reveals that there are no significant differences in perceptions of e-commerce readiness and efficacy based on the type of business structure. This implies that businesses of various sizes, regardless of their organizational structure, perceive e-commerce in a similar manner. This is an encouraging finding as it suggests that larger companies can adapt to e-commerce adoption just as effectively as smaller ones. It also implies that e-commerce can be a viable strategy for businesses of all sizes to remain competitive in the digital marketplace. However, it’s important to acknowledge that perceptions of e-commerce...
readiness and efficacy can be influenced by other factors. Variables like age, income, and prior experience with e-commerce may also shape these perceptions. For instance, younger generations tend to be more inclined to use e-commerce, and consumers with positive previous e-commerce experiences are more likely to trust the industry and continue using it.

Despite the potential advantages and disadvantages of e-commerce adoption associated with different business structures, the study’s results suggest that these distinctions may not significantly impact perceptions of e-commerce. Small businesses may see e-commerce as a means to expand their customer base and reach a wider audience, while larger businesses may view it as a way to enhance efficiency and reduce costs. Nonetheless, the similarity in perceptions of e-commerce readiness and efficacy across diverse business structures indicates that e-commerce adoption is an attainable goal for businesses of all sizes, with other factors playing a more influential role in shaping these perceptions.

<table>
<thead>
<tr>
<th>Variables</th>
<th>H</th>
<th>p-value</th>
<th>Verbal Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readiness</td>
<td>1.81</td>
<td>0.613</td>
<td>not significant</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>3.27</td>
<td>0.351</td>
<td>not significant</td>
</tr>
</tbody>
</table>

Table 8: Test of Difference on The Perceptions on The E-Commerce When Respondents Are Grouped According to The Type of Business Structure

Table 8 offers a holistic set of recommendations to foster the growth and success of small businesses involved in e-commerce. Collaboration between policymakers and businesses is essential to ensure the long-term viability of small enterprises in the studied area. These recommendations include recognizing the diversity of industries and business sizes, tailoring policies to the unique needs of small firms, and implementing initiatives to support startups during their initial years. Prioritizing online commerce security through robust measures, employee training, and regular security audits is crucial to building trust and preventing fraudulent activities. Additionally, focusing on factors influencing e-commerce efficiency, such as technological literacy and user experience improvements, along with strategic marketing plans for customer engagement and expansion, can collectively enhance e-commerce readiness and effectiveness. By embracing these recommendations, policymakers and businesses can facilitate the growth and sustainability of small e-commerce enterprises, ensuring their competitiveness in the digital marketplace.

4. CONCLUSION

The study’s findings reveal essential insights into the readiness and effectiveness of e-commerce adoption among small businesses. It highlights that, overall, small businesses, particularly sole proprietorships and partnerships, outshine corporations and larger entities in their preparedness for e-commerce integration. Additionally, the study underscores the widespread recognition among respondents of the value of e-commerce in reaching customers, boosting sales, and cutting operating costs. However, disparities exist across different types of businesses, with corporate companies demonstrating higher readiness for e-commerce. In response to these findings, recommendations have been put forth, emphasizing the need for tailored support for early-stage businesses, a focus on online security to build trust, collaboration between policymakers and business owners to ensure sustainability, and the realization of e-commerce’s potential benefits for small businesses in terms of growth and competitiveness.

REFERENCES


