
THE ADOPTION OF BUSINESS DIGITALIZATION BY SMEs: A CASE STUDY IN BANDUNG

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ABSTRACT

The objective of this study is to investigate the the existing practice of business digitalization by SMEs in Bandung. There were qualitative techniques employed in conducting the research, which mainly consisted of several interviews with small scale enterprise owners cutting across different sectors. The findings show that digital enterprises are responsible for significant improvements in business operations and financial results. However, there are still some challenges including high costs at initiation stage and inadequate employee skills required. According to research affordable technology solutions and training employees can be effective approaches to mitigate these obstacles thereby improving Small Medium Enterprises benefits from going digital.

ABSTRAK

Tujuan dari penelitian ini adalah untuk menginvestigasi praktik digitalisasi bisnis yang dilakukan oleh UMKM di Bandung. Penelitian ini menggunakan teknik kualitatif, yang sebagian besar terdiri dari beberapa wawancara dengan pemilik usaha kecil yang bergerak di berbagai sektor. Temuan menunjukkan bahwa perusahaan digital bertanggung jawab atas peningkatan yang signifikan dalam operasi bisnis dan hasil keuangan. Namun, masih ada beberapa tantangan termasuk biaya yang tinggi pada tahap inisiasi dan keterampilan karyawan yang tidak memadai. Menurut penelitian, solusi teknologi yang terjangkau dan pelatihan karyawan dapat menjadi pendekatan yang efektif untuk mengurangi hambatan-hambatan ini sehingga meningkatkan keuntungan Usaha Kecil Menengah dari peralihan ke digital.

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INTRODUCTION

Technological developments cannot be separated from entrepreneurial practices. Entrepreneurship is not only limited to how to run a business. More than that, entrepreneurship also explains ways that can be done to increase business opportunities. One way to increase business opportunities is to utilize information technology. In modern society, the development of new technologies expands various entrepreneurial opportunities and provides challenges for business owners and their companies, as is the case with digitalization (Beliaeva, Ferasso, Kraus, & Damke, 2020).

Digital entrepreneurship has received great attention, and is a relatively new area of research. Digital entrepreneurship is characterized by non-binding and networked processes, agencies and outcomes, and therefore has flexibility in time and space. Therefore, one of the characteristics of digital entrepreneurship is using an integrative and holistic approach. This report considers the complex nature of digital entrepreneurship and innovation as it brings a multilevel perspective and captures the complex relationships formed between actors, which include companies, universities, governments, NGOs, citizens, local communities, infrastructure, customers and other actors (Beliaeva et al., 2020).

The concept of digital entrepreneurship, if utilized in business practice, will be able to have a quite large impact. If practiced correctly, digital entrepreneurship can increase profits for businesses, because it expands market reach. Therefore, this research aims to explore the impact of entrepreneurship on the welfare of business actors in the Bandung area, by looking at and considering a number of aspects.

The prospect of entrepreneurship in Bandung City is quite promising. By looking at the indicator of the acceleration of digitalization of transactions, in 2023 Bandung City will be ranked 8th in Java-Bali at the city level. This ranking is up from 2022 which was ranked 12th.

LITERATURE REVIEW

Digital Transformation.

Digital transformation is a multidimensional phenomenon that affects all domains of human activity, namely technology, economics, politics and society (Kraft, Lindeque, & Peter, 2022). The existence of new technology can bring new opportunities that produce potential business value, with low entry costs but greater flexibility, making this phenomenon a replacement for old practices, transforming existing industries, as well as the emergence of new industries.

Digital transformation is a phenomenon that cannot be separated from the industrial revolution. Both are associated with production processes that adapt to emerging technologies. Conceptualized as an ongoing transition process, each industrial revolution is a phase in the ongoing evolution of industrial production in response to the emergence of a dominant general-purpose technology (Golzer & Fritzsche, 2017).

The fourth industrial revolution is a form of integration of information, communication, and connectivity emerging technologies (Bharadwaj, El Sawy, Pavlou, & Venkatraman, 2013). Digital transformation, when viewed from an economic perspective, can increase productivity in the value chain with the help of technology (Stich & Hering, 2015). With the integration of digital technologies, it can expand the importance of intangible capital such as information. With this information, it allows employees to take advantage of the networked nature of contemporary value creation and the large volume of information produced and captured by companies of all sizes (including SMEs) that can be realized with new tools (Bauernhansl, 2017).

Compared to the first three industrial revolutions, digital transformation differs in terms of horizontal and vertical integration because it combines humans, machines, and objects (Droseln, Klunder, & Steven, 2017). This phenomenon can be observed in the most influential technological developments such as mobile technology, social media, analytics and big data, and so on (Chalons & Dufft, 2018). With this technology, it allows for better efficiency (Lanzolla et al., 2020).

Islam embraces change and innovation, provided they adhere to the principles and guidelines set by Shariah (Kamali, 2021). This flexibility allows for the adaptation of new ideas and practices that benefit society, ensuring they remain in harmony with Islamic teachings. Shariah emphasizes justice, equity, and the welfare of the community, so any change or innovation must align with these core values (ISRA, 2018). This approach enables Muslims to navigate and integrate advancements in various fields, such as finance, technology, and social practices, while maintaining their faith and ethical standards. Thus, the dynamic

nature of Islam allows it to remain relevant and responsive to the evolving needs of its followers as in the are of *mu'amalah* where something new is permissible as long as not prohibited by sharia (ISRA, 2023).

This study attempts to examine the broader patterns of contemporary studies on MSME digitalization, with a focus on innovation strategy/performance (Scuotto, Nicotra, Del Giudice, Krueger, & Gregori, 2021; Somohano-Rodriguez, F.M. Madrid-Guijarro & Lopez-Fernandez, 2020); and digitalization of products and services (Proksch, Rosin, Stubner, & Pinkwart, 2021).

METHODS

Research Design

The process of determining how research will be carried out is called research design. The pure qualitative method, focus group discussion (FGD) is being used to provide an answer to the research question in order to achieve the study objectives. FGD involves involves a small group of participants guided by a moderator to engage in an in-depth discussion on a specific research topic. FGD allows researchers to explore various perspectives, understand collective perceptions, and delve into complex issues through social interaction among participants (Krueger & Casey, 2015). In order to investigate the existing practice of business digitalization for SMEs, in-depth interviews were performed with several entrepreneurs. In a nutshell, Table 3.1 below illustrates how the researcher met the study's objectives and conclusions:

Table 3.1 Research Objectives and Research Question

No	Objectives	Research Questions
1	To assess entrepreneurs' perceptions towards business digitalization.	What are entrepreneurs' perceptions toward business digitalization?
2	To examine the current practice of business digitalization employed by SMEs	To what extent that business digitalization is practiced in the SMEs?
3	To examine the effectiveness of business digitalization in operational efficiency and financial performance of SMEs	Is Implementing digitalization business to achieve operational efficiency and financial performance?

A planned interview is set up with relevant parties (Brunetti et al., 2020), including cookies, catering, hajj souvenirs, herbal product, traditional cookies and beverages entrepreneurs. As a result, six interviewees were chosen from various parties, and the study's exclusive focus was on business digitalization business in terms of its application and potential benefits for their business. The list of respondents from six entrepreneurs is displayed in Table 3.2 below.

Table 3.2 Informant Profiles

No	Name of Informant	Institution	Position
1	Respondent 1	Hajj Souvenirs Entrepreneurs	Owner
2	Respondent 2	Cookies and Bakery Entrepreneurs	Owner
3	Respondent 3	Catering Entrepreneurs	Owner
4	Respondent 4	Herbal Product Entrepreneurs	Owner
5	Respondent 5	Beverages Entrepreneurs	Owner
6	Respondent 6	Traditional Cookies Entrepreneurs	Owner

Techniques of data collection

An In-depth interview

According to Komariah & Satori (2010), an in-depth interview is "a technique of collecting data to obtain information extracted from source data directly through conversation or question and answer session." In order to gather detailed information, a structured interview method is used to conduct question-and-answer dialogues with the respondents. Both the researcher and the interviewees will experience the interview setting.

According to Cooper & Schindler (2006), structured interviews allow the study to compare the responses of the respondents. Accordingly, the study concludes that this tool can assist in gaining an understanding of the Adoption of Digital Technologies by SMEs. In order to guide interviewees throughout the interview process, interview guidelines have been prepared prior to conducting the interview. The five questions on Adoption of Digital Technologies by SMEs, Barriers to Digitalization for SMEs, and Digitalization and Business Performance are included in this guideline. Appendix 1 contains the comprehensive interview guideline questions.

Prior to the interview, each responder is called directly to set up a time and location that works best for them. Depending on the answers each responder provides, the interview can take anywhere from 20 to 50 minutes to complete. The interview is written down and recorded with the respondents' permission for future examination.

Data Reduction

The researcher uses a qualitative analysis with inductive descriptive methodologies to confirm the problem's focus and the categories created via interviewing participants. In this instance, the researcher gave greater attention to SMEs' adoption of digital technologies. According to Miles & Huberman (1994), "data reduction is the process of selecting, focusing, simplifying, abstracting, and transforming the data that appear in written up field notes or transcriptions." The data must be changed and condensed in order to be manageable and understandable in terms of the issues being addressed.

RESULT

Interview Result

Research Objective 1-Adoption of Digital Technologies by SMEs

1) What factors influence the adoption of digital technologies by SMEs?

The owner of gift hajj business opined regarding the factors influence the adoption of digital technologies. The first factor is When it comes to SMEs' choices relating to technology, awareness of the utility of the technology is central. The choice largely depends on the firm's ideas on how technology can enhance operational efficiency and expand the client base. To achieve this, shop owners have to be aware of the benefits of investing in these technologies such as social networking, e-commerce among others. They know the essence of going digital since it opens up the consumers reach to clients who may not be nearby the physical stores. The second factor is coming from the answer of two business owner, namely, cake and bakery makers and caterers, who believed that market competition influences their decision to go digital. They said, Customers' needs in the food sector are dynamic and hence shifted towards the services that are convenient to obtain, fast to access, and more technology-enabled. Currently, consumers expect to be able to track their consignments, order food online, pay through various online methods and so on. Catering and cake businesses have to step up to these challenges and possibly incorporate means such as order management systems, and social media platforms for marketing to serve these needs and be competitive within a very saturated market. The technologies in catering and baking businesses may enhance the satisfaction level of the clients, increase the chances of more revenues, and deliver more efficient and faster services. Digital technology also allows businesspersons to acquire clients' data and assess it to improve product positioning and design promotional trends, which can contribute to creating high-performing advertisements. Besides, those engaging in the operating of catering businesses are under pressure to adopt new technology as the competitors who have already adapted to the growth of digital technology speak of. Moreover, the herbal enterprise and beverages enterprise have the same believe that the factors of the adoption of digital technologies are to strengthen the brand and grow revenue. Such tools empower SMEs by helping enterprises to develop strong and visible brand presence in the consumer mindscape — through

social media platforms, improve engagement with customers that allow them for a more refined go-to-market strategy. In addition brand visibility and customer relationship have been embedded in the mind of consumers which result into a strong brand identity as well customers loyalty. On the one side digital technologies stimulate new revenue opportunities for SMEs and realise efficiencies in operations, but at the same time that way SMEs are able to attract more sales using the e-commerce platforms, digital marketing. They stated that introducing such new innovations that both bolster the brand and aid in income growth no doubt a valuable addition for small enterprises out there who wants to get an edge over other peers while boosting revenues on top of it.

2. What are the perceived benefits of digitalization for SMEs from the perspective of business owners?

Digital technology adoption by SMEs has a number of benefits for the business owners instantly. First, digitization brings more market opportunities. For instance, one interviewee who owned a food catering firm explained how through digital marketing they were able to find customers from outside their local area. SMEs that go digital are also able to enhance their customer service. Some such business can communicate directly with customers through social media and respond to them in a short time period and help them if needed. This improves consumer satisfaction while developing trust and brand loyalty as well. the roles of which one of the key factors that continues to see SMEs gain a competitive edge is offering efficiency in relation to the customer services. Also, improve brand familiarity, therefore, digital marketing channels encompass a good prospect for boosting brand familiarity amongst SMEs. By using effective marketing techniques on social media networks and search engines, smaller businesses can reach out to bigger as well as more specific audiences. To this end, efforts in digital marketing differentiate these enterprises from others hence attracting consumers hence building their image as a strong brand.

To conclude, when it comes to the owners of businesses, the perceived advantages of digitalization in Small and Medium-sized Enterprises are very significant. Brand enhancement is one major advantage. Digital instruments like social media platforms; websites and digital advertisements allow SMEs to create and develop a strong branding presence. Increased visibility helps in establishing a unique identity that makes products and services of a particular business noticeable to its potential customers. Also, digitalization facilitates reaching out to a larger base of consumers. With the help of online channels small-scale enterprises can have access beyond their immediate physical locality thus opening up new markets as well as customers' segments. In addition, this not only increases exposure on brands but also creates additional streams of income for companies by connecting with those who would not be found through conventional means. Overall, SMEs can use digitalization in improving praise for their brands to make them grow and stand out from their competitors in an increasingly emerging digital world.

Research Objective 2- **Barriers to Digitalization for SMEs**

1) What are the common barriers faced by SMEs in adopting digital technologies

From the results of the interview, 2 main barriers were found in the application of digital technology, namely cost and human resources, the owner of the Hajj souvenir shop believes that the application of technology in his business can increase efficiency and long-term profits but the initial costs that must be incurred are quite burdensome for SMEs with thin profit margins. The second one is that often SMEs have limited number of employees which can be a problem when implementing new digital technologies. More often than not, the responsibility of managing and implementing new technology may prove overwhelming for a small staff. Also, the present staff members might not possess adequate technical skills that could enable them to apply the modern technologies optimally. Inability to effectively integrate and efficiently use the innovative digital technologies constitutes the main challenges for MSMEs in cases if there is lack of human capital or qualified labor force.

Most of SMEs stated that incorporating digital technology can enhance efficiency levels perpetually increasing profits over time, this enormous initial investment creates a serious problem for SMEs which operate within very narrow profit margins. This is because introducing new technologies requires enough human resources with requisite technical know-how that most employees do not possess. Managing and integrating new digital tools may become an additional burden for small teams while lack of sufficient talent may hinder effective use of these tools by SMEs thus hindering their growth prospects through increased productivity either way. Therefore, these two factors account for major challenges faced by SMEs

pertaining to adoption of digital technology hence are high costs related compensation packages and the limitations experienced vis-a-vis human capital.

Research Objective 3- **Digitalization and Business Performance**

1) How does the adoption of digital technologies affect the operational efficiency of SMEs?

The interviewees mentioned regarding the impact digital technologies to the operational efficiency, their opinions are:

The adoption of digital technologies has an impact to the operational efficiency such as Orders and Payments: made easy, one can easily order and make payment for the products. This will also help minimize the human errors, become more efficient in the services being rendered, and thus the high customer satisfaction. The real-time data in sales also assists organizations in stock control and management and planning; hence, they never run out of stock or end up with some unsold products. It also makes digital marketing more efficient, in addition, it makes better stock keeping where through technology, real time stock checking may take place so that one is not short of stock or congested, then Technology can also assist in tracking the selling products and making procurement most efficient hence reducing costs. With correct stock data available in the market, the stores can easily and more effectively fulfill the customers' needs.

2) How does digitalization influence the financial performance of SMEs?

The study found that interviewees were agreed that business digitalization is influenced to their financial performance, they mentioned the reason:

First and foremost is the effect to the Increase of Revenue and Sales with the help of social media and advertisement cakes and pastry stores are now able to market themselves through digitalization. Many stores can market their products using social media a lot, pass interesting information to people and build closer relationships with them. Since it employs the use of a pre-built platform, the store is capable of accepting orders over the Internet at all time, thereby enhancing an opportunity to make more sales while on the other hand, creating a constant chance to offer customer services without being bounded by the working hours. Moreover, other successful online marketing campaigns such as bundle services offer available only online or special offers available only to the online platform users can help to increase clients' awareness and attract more new clients. In our view, total market prospects, increased sales, and consequently, total revenues can also be achieved with the help of an optimized digital strategy. Moreover, they also believed that it is a great advantage for the SMEs, which are interested in increasing the effectiveness of their financial management to turn to the digital technologies which can track incomes and expenses more accurately and in details. Digital technology also makes investment planning definitely a more scalable process than some of the traditional approaches. Large organizations are more likely to determine what investment to take and which activities to fund when the analysis of data is accurate. The management improvement which results from the application of digital technology in the financial management directly enhances the performance of SMEs.

CONCLUSIONS AND RECOMMENDATIONS

When reporting the results, the study focused on the current practices together with the entrepreneurs' perspectives on operational impact and financial performance and thus saw how small-to-medium enterprises were employing digital technology. They move agree with the fact that a large number of managerial functions can be optimized with the help of diverse digital technologies, which, in turn, contribute to the growth of business clientele. The competition and technological factors are the magnitudes that influence adoption. The major benefits of going digital include growth of business opportunities in wider markets, improvement in clients' services, and enhanced visibility. There are, however, usual challenges which include high initial investment and little human resource which limits the wide spread use of the system. Technology application in business processes results in significant increase in productivity. They include digital marketing for instance, real time stock control and efficient order and payment process which reduces operating costs and which improves customer satisfaction.

More effective and efficient financial management resulting from the newly available digital

technologies, higher incomes and sales rates that could be achieved through proper digital marketing efforts have a positive effect on financial performance.

Subsequent research should focus on the building of affordable technological tools for the SME sectors to increase the understanding of the usage of technological tools in SMEs. Organization development interventions to enhance human capital efficiency of SME's provide ways of managing the human resource barriers. Solutions that address specific needs and concerns can also be developed by the SMEs in cooperation with the technology suppliers. Lastly, constant monitoring and evaluation of SMEs' usage of technology can provide valuable data about the effectiveness and sustainability of campaigns and strategies for the future.

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