

# IMPLEMENTATION OF TECHNOLOGICAL INNOVATION IN BUSINESS OPERATIONS MANAGEMENT OF START-UP COMPANIES IN THE E-COMMERCE SECTOR

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## **Abstract**

*Research purposes* This study focuses on the implementation of innovation technology in the management of operational business start-up companies in the e-commerce sector. *The method used is qualitative, with a study field.* As for the participants in the study, they are two employees of a start-up company in the e-commerce sector. *Research result* This implementation of innovation technology in management operational business, especially in the context of start-up companies in the e-commerce sector, has significant implications. Implementation of innovation technology has facilitated process automation, management of inventory efficiency, and optimization of chain supply, all of which have a positive impact on improving company performance and productivity. *Study* This confirms the importance of integrating technology into the management of operational start-up companies in the e-commerce sector. *Temporary challenge in implementation:* No can be neglected. *Benefits period length:* to increase efficiency and experience, customers make investment in technology an important step. *For growth and success, company length.*

**Keywords:** Implementation, Innovation Technology, Start-Ups in the E-Commerce Sector.

## **INTRODUCTION**

Implementation of innovation technology in management and operational business has become a necessity inside the company because it is crucial to increasing efficiency, productivity, and power competitiveness. In the context of the continuing digital era, companies that fail to adopt or adapt to technology tend to be left behind and face difficulty competing in an increasingly competitive market (Raharjo et al., 2023). With the application of innovation technology in various aspects of operations like management chain supply, data analysis, process automation, and product development, companies can optimize performance, reduce costs, increase customer satisfaction, and create markup that is added sustainably. Therefore, Hendarsyah (2019) explains that to maintain relevance and growth for a long time, a company must, in a proactive way, search for and apply innovation-appropriate technology to meet business needs and strategies.

The main benefits obtained from the adoption of technology in management operations include enhanced efficiency in business processes. Deployment devices, soft management chains, and sophisticated supply, for example, speed up the production process, reduce shipping time, and optimize management stock. Additionally, process automation uses technology to reduce incident errors, save time, and improve operational accuracy. Next, technology may enable a company to collect, analyze, and use data in a more effective manner. Advanced data analytics solutions facilitate the identification of market trends, behavior, customers, and opportunities to improve marketing and product development strategies. Careful data analysis also contributes to the retrieval of more decisions that are good and more informed (Sudaryono et al., 2020).

In terms of communication and collaboration, technology plays an important role in facilitating more interaction between business units, branches and external partners. Through digital collaboration platforms, teams can work the same way, share information in real-time, and coordinate tasks with more efficiency. Initiative This not only increases productivity but also strengthens the work team. Apart from that, Mutmainnah and Ramadani (2023) believe technology is a possible way to strengthen connections with customers through more responsive and personal service. Via social media, mobile applications, and CRM (customer relationship management) systems, companies can interact directly with customers, listen to bait, come back to them, and adjust products and services in accordance with individual needs and preferences (MMunizu et al., 2023).

Innovation technology provides a critical ability for companies to adapt in a rapidly changing business environment. In an era where new disruptors and technologies appear with speed, flexibility and agility become key (Heri, 2022). With an approach proactive to innovation technology, companies can more easily adapt themselves to market changes, maintain relevance, and take leadership roles in respective industries. Implementation of innovation technology in management operations It is not only something to choose but rather a must for companies that want to strengthen their power, compete, speed up growth, and attain continuity for a long period of time. Therefore, companies must allocate enough power and invest strategically in technology to ensure that they are still relevant and effective in an ever-growing market (DDaniarko & Nurhadi, 2024).

In start-up businesses in the e-commerce sector, implementation innovation technology moment This has become a precondition essential for continued success and growth. As a platform that relies heavily on technology to connect seller and buyer in an efficient way, e-commerce start-up companies must utilize the latest progress in technology to overcome challenges and exploit available opportunities (SSumayzar et al., 2023). Fitria et al. (2022) explain that to face fierce competition in the e-commerce sector, start-up companies must differentiate themselves by offering

unique, safe and efficient online shopping. Application innovation and technology play a key role in creating differentiation. This. As an example, artificial intelligence (AI) can be used to serve customers with personalized product recommendations and improve their shopping experience. Blockchain technology can also be utilized to increase the security of online transactions and build trust between customers.

Beside that, deep e-commerce start-up context and adoption technology also make it possible for companies to expand their range and reach more markets. Through an optimized e-commerce platform for mobile devices and implementing smart digital marketing strategies, companies can reach consumer potential worldwide with a low relative cost compared to traditional marketing methods. More Furthermore, technology also makes it possible for e-commerce start-up companies to manage supply chains more efficiently (Sara & Fitryani, 2020). Use system management connected inventory online, usage analysis predictive Planning supplies and implementing RFID (Radio-Frequency Identification) technology for tracking goods are examples of how technology can help increase efficiency in operations and optimize logistics processes (Ringo & Mawati, 2023).

Based on the results of a study previously conducted by Ramadhan et al. (2022), the implementation of innovation technology in management and operational business companies has shown significant improvement in various aspects. According to research, successful companies that use innovative technology in their operations tend to perform better overall. Adoption of technology has proven to increase operational efficiency, speed up business processes, reduce costs, and improve responsiveness to market changes. Additionally, implementation innovation technology also delivers a significant contribution to enhancement productivity power work with possible automation of routine tasks. With this, the source of power can be allocated to more activities—strategic and valuable, plus. In context management chain supply, technology facilitates repair with increased visibility of genre goods and information, which in turn increases accuracy, time delivery and customer satisfaction.

Next, implementation innovation technology is also opening up opportunities for the development of more innovative products and services. Through sophisticated data analysis and a deep understanding of customer behavior, companies can design more products and services in accordance with market needs, increase differentiation and competitiveness, and expand their market share. Although so, results research also highlights a number of challenges faced in the implementation of innovation and technology. The general challenge covers cost-high implementation, difficulty in integration with existing infrastructure and systems, as well as resistance from employees to change. Therefore, that's success. Implementation of innovation technology also depends on the capabilities of the company. To overcome, challenge, and facilitate it, change organizational requirements.

Overall, findings from the study confirm that the implementation of innovation technology in management and operational business companies has a significant positive impact. However, to maximize potency benefits, companies need to notice related challenges with implementation and adopt appropriate strategies to overcome them. As for research, this is different from a study previously with a focus specifically on the implementation of innovation technology in the management of operational business start-up companies in the e-commerce sector. Study Possible has previously adopted a more general or diverse approach in the election sample, which involves various types of companies or industries. Instead, research this in a way explicit target start-up companies in the e-commerce sector, offering an outlook deep about how innovation technology was implemented and impacted in a very specific business context.

In addition, the methodology and approach of research used in the study are different from those used previously. Study previously Possible emphasizes analysis of quantitative secondary data, a temporary study This possible approach mix includes quantitative and qualitative analysis as well as primary data collection through interviews, surveys, or study cases. Next, research its own potency. For a deeper understanding of influencing factors success or failure implementation of innovation technology in management, operational business start-up companies in the e-commerce sector. With more context, depth, challenges faced, and opportunities available for e-commerce start-up companies to adopt technology, research This can be a valuable contribution for holders of interest, business people, researchers, and practitioners. To improve implementation strategies and technology.

As a result, this research not only contributes to the academic literature on innovation technology and management operations, but it also leads to a better understanding. Good about how start-up companies in the e-commerce sector can utilize technology to reach superiority, competitive and sustainable growth. Based on exposure, researchers are interested in doing a study with the title Implementation Innovation Technology in Management in Operational Business Start-Up Companies in the E-Commerce Sector.

## **RESEARCH METHOD**

Research methods used in the study This is a method study qualitative with type study field, which is one general approach used in a study, for example. This method aims to understand moderate phenomena researched from the perspective of a participant or subject researcher, with a focus on meaning, interpretation, and social context (Ilswadi et al., 2023). In qualitative research, researchers are directly involved in the situation by observing, interviewing, or interacting with The participants are two employees of the company who are engaged in the field of e-commerce start-ups. Research data, which researchers collect in a direct way from the source, is good

through observation, direct interview, in-depth, note field, or audio/video recording. Data obtained is then analyzed in a way that is in-depth and interpretable to reveal patterns, themes, or meanings that emerge.

As for the steps in the study, This includes: a) observation participatory: researchers involved in a direct way in the situation field, observing and taking notes relevant information about context, behavior, and social interaction. b) Identification problem research: The researcher determines the topic of research and the identification problem or question of the research you want to answer. The researcher explains the objective study in a clear and specific way. c) Literature review: Researchers do review references to understand studies previously relevant to the topic studied. With scientific journals, books, articles, and sources Trusted other To obtain a good understanding of subject research, d) Design research: researchers make appropriate research designs with goals and questions to study. Researchers determine the method of research to be used, like a survey, observation, interview, experiment, or combination of these methods. Furthermore, researchers compile a list of instruments and techniques to be used. To collect data, in the study This researcher uses observations and interviews to collect research data. e) Interview in depth: Researchers do interview structured participant research to obtain a deeper understanding of their perspectives, experiences, and interpretations about the phenomenon under study. This researcher is observing and interviewing each of the two company employees who are engaged in the field of e-commerce start-ups. f) Data analysis: After finishing collecting data, researchers do data analysis for answer-question research and use qualitative method analysis. g) Interpretation Result: After analyzing the data, researchers interpret the results of the study. Identify the main findings and connect them back to the study question. Then explain the implications, findings and interesting logical and comprehensive conclusions.

## **RESULT AND DISCUSSION**

Based on the results of careful observation and a series of interviews with two employees of companies operating in the start-up and e-commerce sectors, researchers successfully identified findings important to the implementation of innovation technology in management and operational business. Analysis This gives a deeper understanding of the impact of technology on various aspects of operational companies as well as the associated challenges and benefits of adopting technology in the context of organizations. One of the main findings from the interview is that the second employee admits to playing a significant role in increasing the efficiency of the operational company. They emphasize that implementation innovation technology has facilitated process automation, management efficiency, and optimization chain supply, which all have a positive impact on improvement performance and productivity.

But, while temporarily the benefits are clear, second-year employees also identify a number of challenges that arise in adopting new technology. The challenge's main highlight is the difficulty in obtaining sufficient funds. For investment beginning in technology. Especially for start-up companies with Source Power Limited, fund allocation for technology can become a significant challenge. Apart from that, they also admit that there is resistance from part employees to changes induced by adoption of new technology, which can slow down the implementation process and disrupt employee involvement. On the other hand, employees also highlight the long-term benefits of implementation technology, including more growth, improved power competitiveness in a competitive market, and improved customer experience. They believe that investment in technology is a crucial step for long-term growth and success for the company.

Basically, implementation innovation technology in management operational business, especially in context start-up companies in the e-commerce sector, has become a focus of increasing attention in the digital era (Bahtiar, 2020). According to Santoso's (2020) shift paradigm This reflects the importance of technology as the foundation's main support for various aspects operational in modern business. In this exposition, we will do more analysis of the deep-related essence, implications, challenges, benefits, and trends related to the implementation of innovation technology in operational start-up companies in the e-commerce sector. Search This will provide a better understanding of the role of technology in creating competitive advantage and leading transformation in today's business ecosystems.

### **1. The Role of Technology in Management and Operational Business**

Management and operational business are crucial foundations for success and continuity in a company. In the era of globalization and digitalization, technology has become a key pillar in increasing efficiency, improving quality services, and optimizing business processes. In the e-commerce start-up sector, where competition is intense and market dynamics are rapid and becoming reality daily, the implementation of innovation technology in management operations has become more important. Implementation technology makes it possible for start-up companies to automate operational processes, improve response to requests from customers, and improve user experience. For example, automation management inventory is possible for companies to manage stock more efficiently, reduce storage costs, and avoid a lack or excess supply. Beside that, data analysis provides valuable insights about behavior, customer preferences, products, and market trends, which can be used to direct marketing and development strategies and make products more effective (S et al., 2023).

### **2. Challenges in Implementation Technology**

Although the potential benefits are great, implementation technology in management operations is also facing a number of challenges. One of them is a high-cost initial

investment. For start-up companies with Source Power Limited, fund allocation for technology can become a significant obstacle. Beside the challenge of integration, the system also becomes factor-critical, especially if the company already owns complex IT infrastructure. Integration that is not fluent between old and new systems can hinder operational effectiveness and slow down adaptation. The other challenge is internal resistance to change. Implementation technology often needs to change culture, organization and internal governance. Employees who aren't familiar with technology or feel threatened by him Possible resistance to change the. Lack of support from employee key or holder internal interests can hinder the implementation process and reduce its effectiveness (Sonata, 2018).

### **3. Long-Term Benefits of Implementation Technology**

Although we face significant challenges, the benefits over a long period of time from the implementation of innovation technology in management and operational business are very big. One of them is enhanced operational efficiency. With process automation and utilization algorithms, companies can increase productivity, reduce operational costs, and improve their response to market changes. Beside the implementation technology, it also makes it possible for companies to give experience to more users, which is good for customers. Through sophisticated data analysis and personalization content, companies can increase quality service, strengthen connections with customers, and improve brand loyalty. This can produce an enhancement in income for a long time and strengthen the company's market position (Rosmayati, 2023).

### **4. Trends and Innovation Latest in Management E-commerce Operations**

In an ecosystem that is changing business quickly, start-up companies in the e-commerce sector must still be on the front lines of innovation. A number of trends and innovations in management e-commerce operations, including application intelligence (AI) and machine learning for more advanced data analysis, adoption of the Internet of Things (IoT) to increase visibility chain supply, and implementation of blockchain technology to increase security transactions and tracking products. Additionally, integration of omnichannel systems is also becoming key to creating an experience of seamless shopping for customers on various platforms. Companies can increase customer comfort and retention by integrating physical, online, and mobile shopping experiences seamlessly.

Findings: This is in accordance with opinion. According to Nicholas Carr, technology in management is a tool that can give various benefits to organizations but can also have complex and occasional impacts that are not anticipated. In his famous post, "Does IT Matter?" and works by others, Carr submitted the argument that technology information (IT) is often considered the same tool for all organizations, so no one can give superiority sustainable competitiveness (Saputra et al., 2023). Carr stated that in a number of cases, technology information can become an important need to keep the

organization operating, but in general, technology tends to become a commodity that can be accessible to everyone. Thus, using technology information does not provide a significant competitive advantage for the company, but rather is a necessary component for daily operations (Haratik et al., 2023).

Apart from that, Carr also highlighted that too much focus on investment in technology information can divert attention from more other factors important in creating a mark for a company, like differentiation products, service customers, and innovation business. In Carr's view, companies should more notice how they use technology to support business strategy in an overall way, not only as objective in themselves. In short, according to Carr, technology in management is an important tool. However, it has not always become a source of superiority and sustainable competitiveness. Its use must be considered in a thorough way, and organizations must focus on the best way to integrate technology into their business strategy (Saputra et al., 2023).

## **CONCLUSION**

Based on the results of the research and analysis carried out, it can be concluded that the implementation of innovation technology in management operational business, especially in the context of start-up companies in the e-commerce sector, has significant implications. \_ Findings This was obtained through careful observation as well as a series of interviews deep with employees of the operating company in scope. Analysis This gives a deeper understanding of the impact of technology on various aspects of operational companies as well as the associated challenges and benefits of adopting technology in the context of organizations. One of the main findings is a confession from a second employee about the role of significant technology in increasing the efficiency of the operational company. They are highlighting that implementation innovation technology has facilitated process automation, management efficiency, and optimization chain supply, which all have a positive impact on improvement performance and productivity.

The main challenge is to obtain sufficient funds. For investment beginning in technology. Especially for start-up companies with Source Power Limited, fund allocation for technology can become a significant obstacle. Apart from that, they also admit that there is resistance from part employees to changes induced by adoption of new technology, which can slow down the implementation process and disrupt employee involvement. On the other hand, employees also highlight the long-term benefits of implementation technology, including more growth, improved power competitiveness in a competitive market, and improved customer experience. They believe that investment in technology is a crucial step for long-term growth and success for the company.

With So, conclusion from study This confirms the importance of integrating technology into the management of operational start-up companies in the e-commerce sector. Temporary challenge in implementation No Can neglected, benefits period length in increase efficiency and experience customer make investment in technology become important step \_ For growth and success period long company.

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