

Navigating the VUCA Landscape: Examining the Transformative Influence of Information Technology on Business Productivity and Performance

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Abstract

In the rapidly advancing era of technology, the implementation of technology in the context of business administration has become a key factor in enhancing the productivity and performance of an organization. This study aims to examine how the implementation of information technology at CV Bangka Putra Persada has influenced the productivity and performance of business. This case study is crucial as it can provide concrete insights into the role of information technology in improving business administration processes at the operational level. The research utilizes a qualitative analysis method, incorporating quantitative surveys from 34 individuals and interviews with 4 staffs who have used Sales Force Automation (SFA) in administration and sales divisions. The findings reveal that the company has embraced technological advancements, namely Sales Force Assessment (SFA), to boost its revenue through increased efficiency and performance. The implementation of information technology has brought significant changes in operational processes and data administration. This is evident in operational efficiency, enhanced data accuracy, and improved accessibility to information. The study underscores the transformative impact of technology on the operational landscape, showcasing how its adoption has positively influenced the efficiency and effectiveness of business administration at CV Bangka Putra Persada.

Keywords: *Business productivity, Information technology, Performance, Sales force automation*

INTRODUCTION

In an era of rapidly advancing technology, the role of information technology implementation in the context of business management has become a crucial factor for enhancing the productivity and performance of an organization and its employees. The emergence of digital technology, unrestricted by space and time, has brought convenience to all areas of life (Zebua, et al., 2023). The trend of office management is highly essential in the present era, where innovation and technology have a significant impact on contemporary issues (Rosalin, et al., 2023).

Moreover, in the rapidly evolving landscape of modern business, characterized by the relentless forces of volatility, uncertainty, complexity, and ambiguity (VUCA), there is an urgent need to delve into the transformative influence of information technology (IT) on business productivity and performance. As organizations navigate through

unprecedented challenges, understanding the concrete impact of IT implementation becomes paramount for survival and success. This research, titled "Navigating the VUCA Landscape," is not merely an academic pursuit but a crucial exploration that offers actionable insights for businesses striving to thrive in this dynamic environment. The urgency lies in deciphering how IT strategies can be strategically leveraged to bolster productivity, ensuring organizations are equipped to confront and conquer the challenges of the VUCA era.

Significant changes can alter organizational paradigms (Chusumastuti, et al., 2023). Information technology encompasses hardware, software, and communication systems that enable businesses to manage, store, and transmit information. When implemented correctly, information technology can assist companies in improving employee productivity, optimizing business processes, and enhancing the quality of services provided to customers.

The progress of technology has both negative and positive impacts on businesses, aiming to increase profits for companies (Toruan, 2022). Based on previous research, the easier the use of information technology, the greater the utility and dependence obtained. This can make employees more efficient (Pramanda, et al., 2016). Furthermore, research by Anggraeni, et al. (2013) indicates that information technology has a significant influence on business development. The use of information technology in business can enhance efficiency and productivity, providing advantages in cost savings and improving product quality, making it more effective and efficient. Additionally, the influence of technological progress has both positive and negative effects on a business.

Another research by (Nurlita and Ginanjar, 2022) obtained the results of the usefulness of information technology, namely the level of belief that using certain technology can improve the performance of workers, which means that technology can be used for more profitable things. According to (Rachmadi, 2020), the development of communication and information technology has an impact on equipment so that it is technologically modern. The tools used are very useful and help human life. Research by Yuliana et.al (2019) on the impact of e-service quality on customer satisfaction of EMOS Application also shows the use of information technology in the company from the customer's perspective.

In recent years, researchers in the field of sales have closely examined the adoption, implementation, and utilization of sales technology tools within B2B organizations (Agnihotri,2021). Initially, scholarly discussions primarily focused on sales force automation (SFA) and its operational aspects, including the use of technological tools that assist in routine sales functions. This discourse delved into topics such as the orientation of SFA and the application of technology to support standard sales processes, as evidenced in studies by Morgan and Inks (2001), Rivers and Dart (1999), and Speier and Venkatesh (2002).

Several tools in the IT sector help businesses to boost their productivity and performance, some of them are Matrix and Sales Force Automation (SFA). Research by

Franck and Damperat (2022) investigates the mediating mechanisms between SFA usage and salesperson outcomes, specifically job satisfaction and sales performance. The findings confirm a direct link between SFA use and salespeople's performance. Additionally, indirect effects are identified through interpersonal mediators, including adaptive selling behavior and relationship quality, as well as intrapersonal mediators, such as role overload and the risk of salesperson burnout. The research also highlights the reciprocal positive influence between job satisfaction and salespeople's performance. Additionally, Holloway et al (2013) highlighted the mediating influences of market learning, customer orientation, and relationship quality on the relationship between Sales Force Automation usage and performance.

CV Bangka Putra Persada was founded in 2012, and belongs to the Mayora group (one of the biggest national Fast-Moving Consumer Goods (FMCG) in Indonesia). It operates as a snack food distributor company. The snack foods it commonly distributes are *beng-beng*, *kiss candy*, and *sari gandum*.

The use of technology also has an impact on work productivity and business administration at CV. Bangka Putra Persada, one of the impacts provided by the use of Sales Force Assessment (SFA) applications. The SFA application used by salesmen and helpers is useful for entering orders requested by resellers and delivering goods according to requests from store resellers. Based on this background, researchers will explore the impact of using these applications at CV. Bangka Putra Persada and examine how the Transformative Influence of Information Technology, particularly SFA Application on its Business Productivity and Performance.

This research aims to examine the impact of the implementation of information technology, namely in the form of matrix and SFA applications at CV Bangka Putra Persada which has influenced the productivity and performance of business administration. Technological advances have both negative and positive impacts on business to increase profits for the company. This case study is important because it can provide concrete insight into the role of matrix and SFA applications in improving business administration processes at the operational level. In the context of this research, we will explore various aspects starting from data processing and how frequent advances in technology can contribute to increasing productivity and business administration performance.

Despite the growing significance of information technology (IT) in the business landscape, a noticeable research gap exists in understanding its nuanced impact on business productivity and performance within the context of the VUCA (Volatility, Uncertainty, Complexity, and Ambiguity) era. While previous studies have explored IT implementation, there is a scarcity of research specifically investigating the transformative influence of IT on operational processes in the face of VUCA challenges, particularly discussing Matrix and SFA applications in the Indonesian setting. The current literature lacks a comprehensive examination of the mediating mechanisms and concrete implications of IT strategies, particularly in real-world settings such as the case study at

CV. Bangka Putra Persada. This research seeks to bridge this gap by providing in-depth insights into the transformative potential of IT in navigating the complexities of the VUCA landscape.

In the ever-evolving landscape of business, the research titled "Navigating the VUCA Landscape: Examining the Transformative Influence of Information Technology on Business Productivity and Performance" addresses the critical role of information technology (IT) in contemporary organizational dynamics. As businesses grapple with volatility, uncertainty, complexity, and ambiguity (VUCA), the study aims to unravel how the implementation of IT strategies impacts productivity and performance. The investigation delves into the concrete implications of technological advancements, emphasizing their transformative influence on operational processes. By focusing on a case study at CV. Bangka Putra Persada, the research contributes valuable insights into the nuanced relationship between IT adoption and the enhancement of business administration efficiency.

METHOD

This study uses a descriptive research approach. This research aims to obtain an overview of the Effect of Information Technology Implementation on Productivity and Business Administration Performance at CV. Bangka Putra Persada. Research methodology involving descriptive research aims to portray and elucidate phenomena occurring in the current or past context. This approach strives to present a genuine depiction of a given condition without necessitating the formulation of hypotheses. The absence of hypotheses is attributed to the fact that descriptive research primarily focuses on providing empirical answers to problems through the collection of real-world data in the field. Consequently, descriptive research does not seek to establish theoretical or conceptual connections between variables. This perspective is supported by Solimun, Armanu, and Fernandes (2018: 6).

This research uses a survey as the primary data collection method, then enforced by interview results with four staffs in the company. The author conducted research from October to November. The research population is employees of CV. Bangka Putra Persada which is located in Bangka Belitung Island. population according to Malhotra (1996) in Widayat (2004: 93) is a whole group consisting of people, events, or items that researchers are interested in studying. A sample is a subgroup of a selected population of researchers in research (Widayat, 2004: 93). The population in this study were all employees of CV. Bangka Putra Persada. 68 employees in Bangka Putra Persada have different job descriptions. The sample taken was 68 respondents who had different job descriptions, gender, and age. The differences in character that exist in each element of the population are not discussed in depth in this study and are merely used for demographic statistics only. Below are the steps in conducting the research:

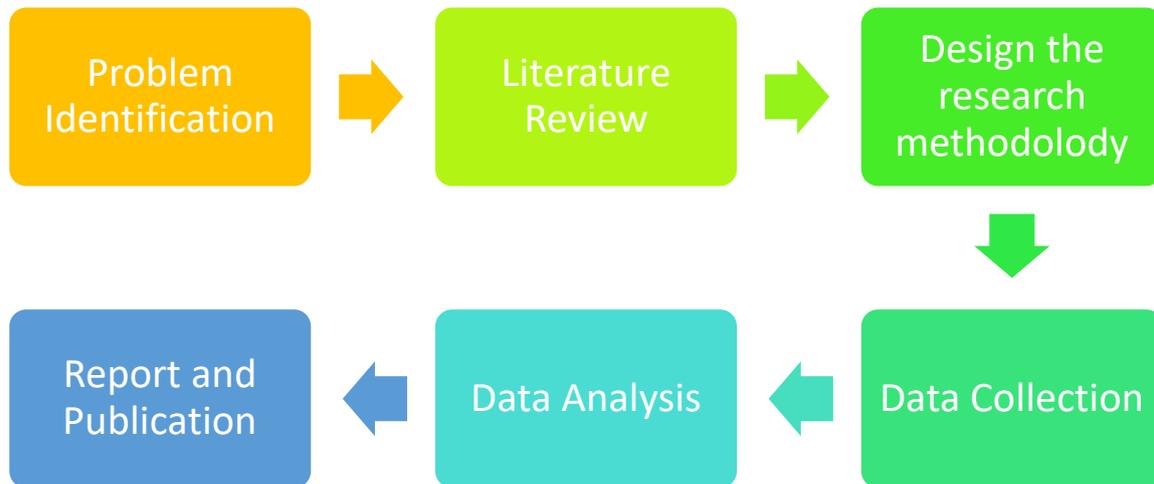


Figure 1. Research Steps

Data was obtained by field surveys through survey and interview methods to find out respondents' opinions regarding the impact of information technology particularly SFA and matrix towards their business productivity and performance. The author uses primary data to obtain data regarding the correct description of the research object. The author distributes a list of questions (Questionnaire) and conducts interviews with parties related to the problem under study.

Interviews are a collection technique by asking informants directly, where the information obtained can be used as a source of data that is not obtained by other sources. Interviews were done face-to-face and randomly selected based on the population. A survey is a data collection instrument in which respondents provide answers by filling in questions given by the researcher.

Several questions act as a basis for the interview including how the matrix application affects productivity, how long the respondents use the Matrix application, and what impacts they gained after using the matrix application.

This study uses the Likert scale in the questionnaire, as follows:

Strongly Agree (SS) = 5

Agree (S) = 4

Neutral Agree (N) = 3

Disagree (TS) = 2

Strongly Disagree (STS) = 1

RESULTS AND DISCUSSION

Results

To collect the data needed to carry out analysis and discussion, the author distributed questionnaires and conducted interviews about the influence of the implementation of information technology on the productivity and performance of business administration in the CV case study. Bangka Putra persada as many as 68 people. The general description of respondents and interviews contains the field of work, age, and gender obtained, details of respondents can be seen in the following table:

Table 1. Characteristics of Respondents

Job Category	Total	%
Administration	16	47
Sales	15	44
Operational	3	9
TOTAL	34	100

Gender	Number of Employees	%
Men	16	47
Women	18	53
Total	34	100

Age	Number of Employees	%
17-25 years old	22	65
26-45 years old	12	35
>45 years old	-	-
Total	34	100

Term of Service	Number of Employees	%
< 1 year	4	12
1-5 years	13	38
>5 years	17	50
Total	34	100

Based on Table 1, most respondents are from administration (37,1%), followed by helper (35,5%) and Sales (27,4 %). It also shows that based on gender, most respondents are men (64,5%), followed by women (35,5%). Based on age distribution, most of the respondents are in productive age, 75,8 % are within the range of 18-25 years old, 19,4% between 26-32, and 4,8 % are between 33-40 years old. Based on term of service, most of the respondents have worked more than 3 years and only small percentage who are new employees (terms of service less than one year).



Figure 2. Perception of Respondent regarding the effect of SFA on efficiency of work

Figure 2 shows the perception of Respondents regarding the effect of Sales Force Automation (SFA) on work efficiency. 73 % of the respondents extremely agree that using SFA in their work helps to complete the work faster, 24 % agree that using SFA in their work helps to complete the work faster, and 3 % extremely disagree that using SFA in their work helps to complete the work faster.

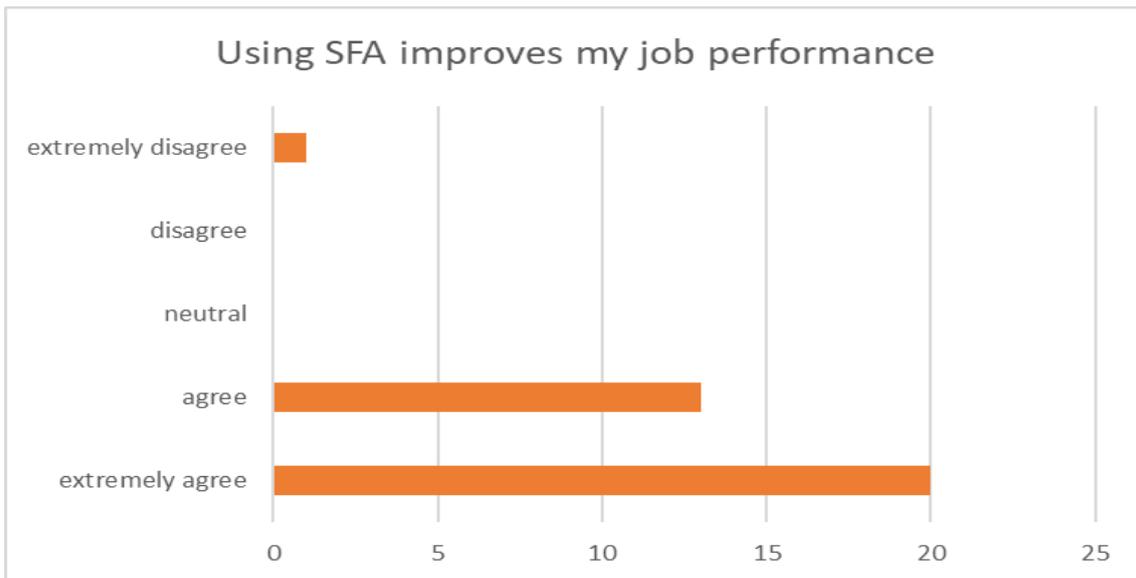


Figure 3. The perception of Respondents regarding the effect of Sales Force Automation (SFA) on job performance

Figure 3 shows the perception of Respondents regarding the effect of Sales Force Automation (SFA) on work efficiency. 20 of 34 respondents extremely agree that using SFA improves their job performance, 13 of 34 % of respondents agree that using SFA in their work helps to complete the work faster, and 1 of 34 respondents extremely disagree that using SFA in their work improves their job performance.

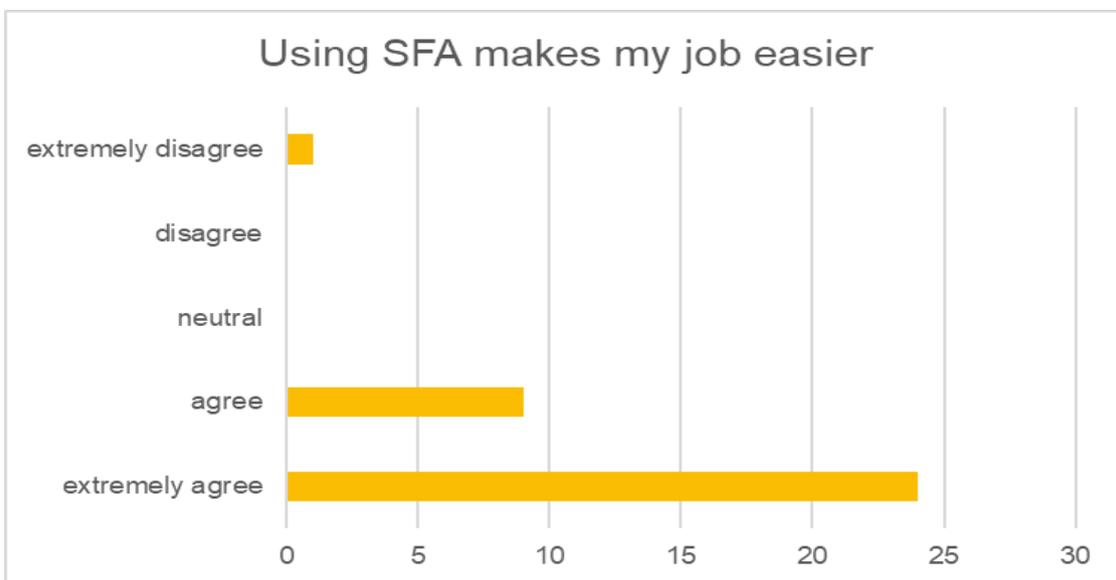


Figure 4. The perception of Respondents regarding the effect of Sales Force Automation (SFA) on easiness in performing the job

Figure 4 shows the perception of Respondents regarding the effect of Sales Force Automation (SFA) in making the job easier. 24 of 34 respondents extremely agree that

using SFA makes their job easier, 9 of 34 respondents agree that using SFA in their work helps to complete the work faster, and 1 of 34 respondents extremely disagree that using SFA in their work makes their job easier.

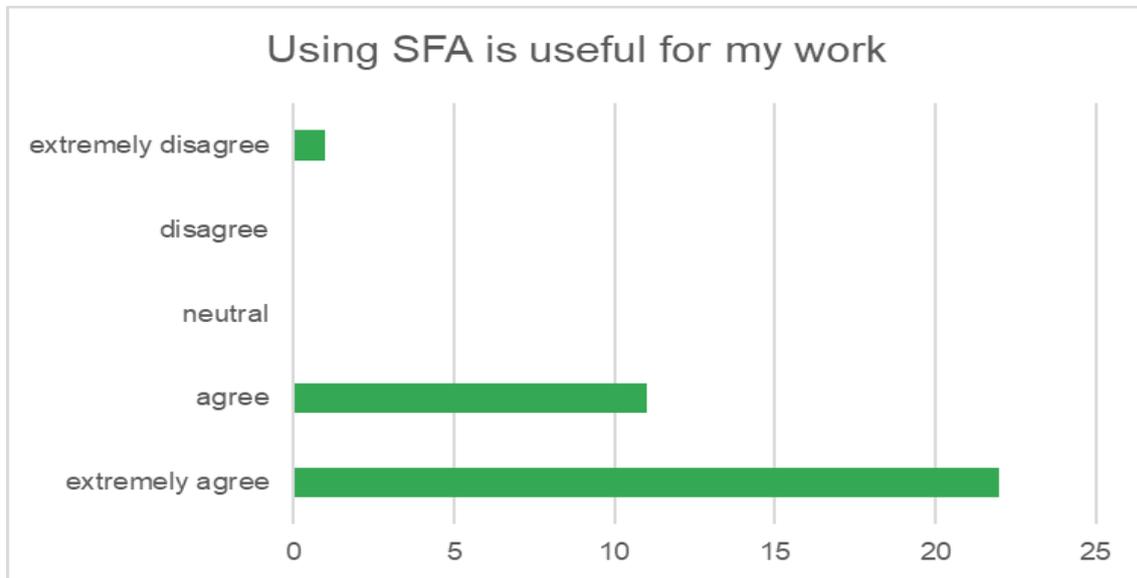


Figure 5. The perception of Respondents regarding the usefulness of Sales Force Automation (SFA)

Figure 5 shows the perception of Respondents regarding the usefulness of Sales Force Automation (SFA). 22 of 34 respondents extremely agree that using SFA is useful for their work, 11 of 34 agree that using SFA is useful for their work, and 1 of 34 respondents extremely disagree that using SFA in their work makes their job easier.

The results from the survey show that the effect of Sales Force Automation (SFA) has contributed positively towards job efficiency and job performance, making the job easier and, in general, useful for their work. Most of the employees from divisions of administration, sales, and operations agree that their job performance is increased after using Sales Force Automation (SFA) application.

Besides the benefits gained from using Sales Force Automation, the respondents also describe some difficulties in using sales force automation (SFA). Some of them include several errors that sometimes occur, and when they occur, it makes the SFA more complicated. It also sometimes takes time to operate when an error occurs. Moreover, after conducting the surveys, the authors interview 4 staff in the administration and sales divisions (each division: 2 people). The interview results confirm the survey results and enrich the findings of this research. The interviewees were asked about SFA's benefits, and they explained that everything becomes easier with this application. Now, there is no need to bother creating notes to give to the store, and sales routes, even the distant ones, can be efficiently managed by this application. Admins also do not have to wait long

enough to receive orders from their sales team. They just download the required documents via the application.

Discussions

The role of information technology combined with business components such as procedures, human resources, organizational structure, management, and other components to form a better information system is one of the keys to strategic business success (Indrajit, 2016). Considering technological advances, employees must undergo training aimed at being able to learn and use technology optimally (Pramanda et al., 2016). The role of management and technology is to provide business leaders with the data and information they need to facilitate decision-making when carrying out subsequent tasks. (Kamaruddin, 2017).

By utilizing information technology, companies must consider the following aspects that can minimize security and data protection risks. Apart from that, the costs incurred when implementing information technology must also be considered. (Anggraeni and Maulani, 2023). Employees develop technical systems that control individual behavior when they have to operate information systems so that the company achieves the desired goals (Sarbani, et al., 2013).

Technological advances are useful for realizing plans to achieve a desired goal and paying attention to targets and strategies to gain a profit. In 2019, when the Covid pandemic occurred, many people had difficulty shopping. This also has an impact on business actors such as CV Bangka Putra Persada which experienced a 40% decline in income. Besides the sales decline, It still needs to incur operational costs which burden the company. Some of them were the cost of administrative assistance to control the work that is being carried out, such as calculating stock which still uses stock cards, calculating sales using Excel, and recording sales using manual notes, this has caused the company to experience a decline in turnover compared to the previous year.

These technological advances have made CV Bangka Putra Persada utilize this technology to make it easier for employees or workers to do all kinds of work. From 2020 until now, CV Bangka Putra Persada has used matrix and SFA applications to print notes, manage stock calculations, and make it easier for salespeople to carry out the data input process and then manage it well by business administration. This improvement in business processes led by technology has increased the company's income.

Technological advances have had a big impact on CV Bangka Putra Persada due to innovation. This growth in buying interest among the public has increased the processing of sales that will be made. Where sales processing can only be done in 3 hours and delivery of goods to customers only takes 1 x 24 hours. This makes it easier for resellers to resell to the public.

Sales Force Automation (SFA) technology has had quite a big impact on business administration and companies where the technology can help companies get an increase in revenue of around 50% from before to help administration reduce errors made by humans and bring significant changes in operational processes and data administration.

The impact of implementing information technology on productivity and management performance refers to the positive and negative impacts that arise when improving data management. The effect of this implementation is to ensure flexibility in production and enable delivery to customers more quickly and economically. (Basry and Sari, 2018). In addition, technology can be applied to simplify daily operations, minimize errors, and increase the accessibility of information needed for decision-making

The impact of implementing information technology on productivity and business administration performance refers to the positive and negative impacts that arise when companies use technology to improve operational efficiency, communication, and data management. Information technology aims to simplify things that are quite complex in various sectors. (Fauzi, et al (2023). Implementation of information technology in business such as the case study at CV Bangka Putra Persada has several positive and negative impacts on productivity and administrative performance. The positive impact that occurs at CV. Bangka Putra Persada is the increased productivity where the use of technology can help CV Bangka Putra Persada speed up business processes from the data obtained and can help speed up productivity. Besides, the use of technology has also helped in reducing automatic system errors in administration with information technology which often develops over time can help reduce human errors such as errors in input which can affect many aspects (such as wasting time and inaccurate input). Additionally, technology advances in CV. Bangka Putra Persada also brings full dependence, where CV Bangka Putra Persada is completely dependent on the information technology system, which also happens if at any time there is interference or device failure in the central system. CV Bangka Putra Persada's system also experienced disruptions and failures, thereby slightly slowing down business administration productivity.

CONCLUSION

Use of matrix and SFA application technology in CV. Bangka Putra Persada plays an important role in increasing productivity and business performance, apart from improving efficiency, communication, and data management and can reduce the need for manual labor and makes it possible to simplify administration to be faster in processing data. However, this technological progress has a positive impact and negative one.

Based on the findings of the research, the authors suggest several recommendations. CV. Bangka Putra Persada should carry out training for workers, apart from theoretical improvements, it is also important to involve workers in computer training that focuses on technology that can help workers not be left behind and analyze the inhibiting factors, apart from the positive impacts that can be taken, it is also necessary to know what factors will inhibit existing technology within a company (such as cyber, damage, etc.). Additionally, future research is expected to find out new techniques in cyber security to protect company data from increasingly sophisticated hacker and malware attacks.

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