

Review Article

Optimization of Technology Mastery as Part of Increasing Employee Performance in the E-Commerce Industry

Ahmad Azmy¹ , and Fidyananta Malanov

Faculty of Economic & Business, Paramadina University, Jakarta, Indonesia

Abstract

Mastery of technology is needed in the E-Commerce industry. Productivity and performance will be benchmarks in business development. The digital-based E-Commerce industry requires employees who have the competence to use new technologies. The conceptual framework explains that the E-Commerce industry must always improve the technological competence of employees. New technologies are geared towards digitizing businesses and transactions efficiently. Employees must respond quickly to rapidly changing technology changes. The process of solving business problems that are fast, responsive to change, and innovative ideas depend on mastery of technology. Business competition that has high complexity requires accurate data and information. The research process takes a literature study approach to see the implications of mastering technology on employee performance. This approach is carried out comprehensively and strategic recommendations are the results of technology to be part of employee performance. All data requirements depend on the use of technology carried out by employees. Some literature states that mastery of technology plays a role in the quality of employee performance. This study shows the direction of technology mastery on employee performance. Technology optimization will increase the probability of success in achieving business targets.

Keywords: Mastery of Technology, E-Commerce Industry, Employee Performance.

¹ Corresponding author's Email: ahmad.azmy@paramadina.ac.id

Introduction

E-commerce is no longer a foreign word we hear in today's era where everyone must know the word and already has a shadow or can even define clearly and clearly about e-commerce. *Electronic commerce* or e-commerce is all buying and selling activities carried out through electronic media with internet intermediaries. (Rahayu & Day, 2017; Tamilarasi & Elamathi, 2020). Approximately about the last 10 years the mention of *E-commerce* has been heard or familiar to our ears, then in line with the data *published* by BPS where it is said that as many as 45.30 *e-commerce* businesses in Indonesia began utilizing the internet in the span of 2017 to 2018, businesses that began utilizing the internet in 2010-2016 as many as 28.06 percent, while new ones starting in 2019 as much as 25.11 percent and who began utilizing the internet before 2010 only as much as 1.53 percent. Then on the data books *website* mentioned also almost all e-commerce products experienced an increase in transaction value in 2019, except electronic goods. The product decreased by 3%, from Rp 334,183 in 2018 to Rp 323,220 a year later. The highest changes were experienced by airfare, hotel and travel products. The product increased by 98%, from Rp 364,918 to Rp 721,843 in 2019. Then Katadata Insight Center in collaboration with Kredivo conducted research on the behavior of e-commerce consumers in Indonesia. The research reached more than 10 million transaction samples in a number of marketplaces (Blibli, Bukalapak, JD.ID, Lazada, Shopee, and Tokopedia).

On jet commerce's official website, jet commerce said that there was an increase in transactions in the fourth quarter of 2020, Jet Commerce noted that its overall sales increased by 36% from the previous quarter, compared directly to the number of transactions that increased by 53% from the third quarter, reaching more than 750 thousand transactions that occurred in various marketplaces in the last three months. In addition, Jet Commerce Indonesia CEO Webber Chen said that the increase in the number of transactions that occurred during 2020 is proof that e-commerce is now increasingly popular with the public because it provides convenience in adapting to circumstances that are full of these limitations.

From this *e-commerce* growth data there are several platforms that have begun to be known and loved by the people of Indonesia. Because everything can be easily used through the touch of a finger on the gadget they have. Ecommerce is also mentioned as the purchase and sale of goods and services over the internet (Eroglu, 2014). There may be some who think that e-commerce only deals with sellers and buyers only. But keep in mind that there are several types of e-commerce, namely:

1. *Business to business* (B2B) where B2B is a company that sells products or services to other companies. In this e-commerce model, buyers usually order goods in bulk. An example is a company that buys office supplies from a manufacturer, an example of a growing platform, namely Electronic City and Ralali.
2. *Business to consumer* (B2C) type of e-commerce is a company that sells products or services to consumers. In general, customers in B2C e-commerce only splatter. Examples of this company are Shopee, Tokopedia, Lazada, Blibli.
3. *Consumer to consumer* (C2C) activities include buying and selling secondhand

goods to others who need them through the internet and the platforms that provide such activities. Or it can also be said that C2C is an online transaction between two individuals. Examples of platforms that provide this C2C are OIX and Carrousel.

4. *Consumer to business (C2B)* is an activity in which a person sells a product or service to a company. For example, selling graphic design to companies in need. Examples of platforms are: iStock.
5. The e-commerce model is similar to B2B, but the culprits are businesses and government agencies. An example of B2A is a website creation service for an online administration system. Examples of platforms are Qlue and Accela.
6. *Consumer to Public Administration (C2A)* This e-commerce model runs like C2B. However, transactions are conducted by individuals and government agencies. E-commerce with C2A models is rarely found in Indonesia.

From some types of *e-commerce* and platforms above we can actually imagine what the process behind the work of a platform can grow from year to year. But few people also understand how it works behind some examples of the above platforms. They do not have an idea of the working system in it, such as what employees develop in it to how the employee's performance to be able to support the development of the company. Some examples of platforms mentioned above are platforms that we have often heard, of course, behind the success and familiarity of the platform there are employees who work hard behind it. Many employees are developed in terms of *hard skills* and *soft skills* in order to continue to be able to update and follow developments in the company including in the use of technology that is increasingly sophisticated and of course for companies engaged in this field must be able to bring employees to be able to develop with technological developments.

Internet technology has transformed supply chains by increasing collaboration and efficiency, and adding value to products as well as companies. The e-commerce industry needs rapid adaptation to technological change. This becomes the company's motivation to conduct experiments by means of business innovation through mastery of technology. (Khoo et al., 2018). E-commerce innovation has the potential to increase the number of transactions in the community with the decision to buy goods by consumers more quickly. In this study, the authors will measure the readiness of MSMEs in adopting e-commerce for their business continuity and will assess how much influence the government has in the technology adoption process.

The first form of e-commerce is classifieds or classifieds. This form of business is the simplest form of e-commerce business that exists. That's because this form of business has a characteristic where e-commerce service providers are not directly involved in the buying and selling process that occurs. In this form of business, the e-commerce company only becomes a medium that brings together sellers and buyers in one place. The characteristics of the form of business classifieds or classified ad listings are that the e-commerce service provider web provider is in no way involved or facilitates directly the online buying and selling transactions that take place. The second characteristic is in

utilizing e-commerce services, anyone who wants to sell their goods is free to do so anytime and anywhere online. Another feature of this form is that e-commerce parties benefit from premium advertising installed on the website.

Employee performance is how an individual is able to use his technique and time in order to achieve the target goals set by the company efficiently and effectively. Aside from employee performance, of course, the e-commerce sector can continue to grow because of other support in it, namely about the use of technology and how the company is able to develop all its employees to be able to follow all forms of technology companies in order to continue to support the implementation of these activities. This research will conceptually explain the implications of mastery of technology on employee performance. Mastery of technology becomes very urgent in the e-commerce industry. This is a challenge for future business development. The productivity and contribution of employees working in the e-commerce industry depends heavily on mastery of technology.

Literature Review

Employee Performance

Performance is all the results of all the achievements of all forms of actions and policies in a series of work efforts at a certain period of time to achieve a goal. (Mathis et al., 2015). Some other notions indicate that performance is the result of work that can be achieved by a person or group of people in an organization, in accordance with their respective authorities and responsibilities, in order to achieve the goals of the organization in question legally, not unlawfully, and in accordance with morals and ethics. (Benedicto & Caelian, 2020; Hutagalung et al., 2020). Performance can be summed up as a work performance and work that has been achieved by a person in carrying out tasks that are burdened on him. The context of the e-commerce industry is directed that employees must understand in mastery of technology. This will have an effect on the implications of achieving performance in meeting the company's expectations.

Organizational productivity will be able to be improved through efficiency and task effectiveness. Perfection of employee performance makes high-performance output and high productivity in all employees of the organization (Atambo & Momanyi, 2016; Kalogiannidis, 2020). The effectiveness of communication allows employees to be more productive than other coworkers. Work efficiency can be done through optimization of technology. Employee performance can be achieved through work commitments to meet deadlines, achievement of quality of work, responsibility, efficiency & operational effectiveness, and a positive attitude towards work. (Ngozi Nzewi, 2016). Employees should be able to deliver good customer service and lower the absenteeism rate. All of these processes can help in increasing job satisfaction, increasing productivity, and changing talent management periodically.

The application of performance aims to find the perspective of employees who carefully intact through training and development. (Inuwa, 2016). Performance can be improved through employee involvement in the work process. Measures of employee performance can be seen from roles, job safety, and creativity. (Alagaraja & Shuck,

2015). These three can be analyzed through organizational citizenship behavior. All employee behavior can lead to productivity and business activities within the organization. Such behavior can reduce the level of absence, delay, attitude inefficiency, and substance of work that is not required by employees.

Performance indicators can be measured through work performance, responsibility, cooperation, and discipline (Abbas et al., 2020). Work performance is the result of work achieved by an employee in carrying out the tasks given to him, which is influenced by the skills, experience and earnestness concerned in doing the work. Responsibility is the attitude of an employee's ability to complete the job as well as well and on time, and dare to assume the risk of the decisions that have been taken. Cooperation is an important element to achieve an employee's ability to cooperate with others in completing tasks so as to achieve optimal usability and results. Discipline is the ability of an employee in obeying and following a rule in doing a job to get good work results. These four indicators are used as predictors of overall employee performance (Hui et al., 2019).

Mastery of Technology

Mastery of technology is very important in this day where in all types of organizations or companies in Indonesia of course have used the latest technology and of course all employees must be able to apply the technology. This is also directly proportional to existing theories about the mastery of technology. (Parry & Battista, 2019). Information technology is the study or equipment of electronics, especially computers, to store, analyze and distribute any information, including words, numbers, and images. (Pankowska, 2019). Technological advances have profound implications on almost every aspect of human life and the advancement of society. This leads to a better quality of life and a higher level of human intelligence. Accelerating technological progress is in the interests of all societies. (Jiang et al., 2018).

Technological advances have long been a driver of organizational change, including the development of human resources (Li, 2016). This process will be a characteristic that will move from one generation to another. The company will strive to improve its competitive position with the application of more advanced and efficient technologies. (I. K. Wang et al., 2017). The process of mastering technology requires the support of top management, parent institutions, owners of capital and interests, connectivity, maintenance and maintenance, human resources, other infrastructure such as electricity, space / building, furniture, interior design, computer networks, and so on and office users such as needs, comfort, user education, user conditions, and others. Things that an employee needs to know in utilizing technology, namely:

1. Understand the intent, scope, and elements of administrative automation
2. Understand and can appreciate the benefits of system analysis and design, implementation, evaluation, and maintenance.
3. Understand the software evaluation process in line with the proposal before determining a system.
4. Understand and can appreciate the importance of training for employees and their

involvement in the entire work process.

From some of the above understandings about the mastery of technology can be understood in an increasingly advanced era of course the mastery of technology must be thought for the company not only in terms of technology that must be more advanced but the assets of qualified employees from some of the above factors must also be able to be provided or designed in such a way that it can be in accordance with the output that all employees are able to master technology in the organization or company which of course h current can improve the performance of existing employees in the company.

Research Methodology

This research uses a literature study approach. Books, journals, research reports, and secondary data to support research results. The research process starts from the urgency of using technology that can improve employee performance. Technology has become a hot issue in the use of business optimization. The company as the main business entity must build awareness of the urgency that is built to all employees. Technology is the main component to achieve business targets.

The literature study method is a process of using theories, concepts, and results that are needed according to the research problem (Sekaran & Bougie, 2016). The analysis is presented in a narrative manner and compares with journals as the main source. The urgency of this topic is built on how the E-Commerce industry really needs employees who master the latest technology. Service and work processes are the main habits that employees must do professionally.

Results and Discussion

The study will use a literary concept to uncover the implications of mastery of technology on employee performance. Below is the image model that becomes the following concept:

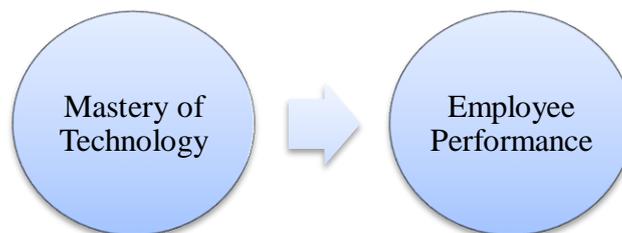


Figure 1. Conceptual Framework

Based on the description of the theory and frame of mind above, to improve the performance of an employee, it takes several supporting indicators, namely Work Performance, where work performance is the result of work achieved by an employee in completing the task given to him. The employee will do so with full skill, experience that has previously been in the hands of the employee and earnestness in completing the work. In addition, the improvement in performance can also be seen from the responsibility factor. In this factor we are able to see the ability of an employee in completing the work

as well and on time as possible, and dare to accept the risk of the decision he has taken. Not only the 2 indicators that can be used as a benchmark to be able to see the performance of an employee, then the cooperation factor also affects the improvement of employees where cooperation will show how an employee is able to cooperate with others in completing tasks so as to achieve results and have optimal common goals. In addition, the three factors above will be more perfect if added with the factor discipline. Where in this factor we can see an employee in obeying and following a rule in doing a job target and optimal work results.

To improve employee performance, of course, not only to the 4 indicators above that can be used as a benchmark. However, mastery of technology is also very important in the role of improving the performance of one employee in a company. Basically, the e-commerce sector is based on high technology where all its activities must be supported by the technology that continues to move in it. Changes in technology over time certainly affect the work performance of a company. In this case, all employees who are in the company must be able to run it. Then from the company side of course the company must be able to convince and must also be able to support all its employees in order to master all forms of technological changes in it. In addition, the company must also think about how to *develop* all its employees in order to be able to master every form of technological change that exists in it so that the employee continues to be able to improve his performance in all fields including in the mastery of good technology.

Mastery of technology can improve employee productivity comprehensively (Majid & Aleissae, 2020; Shahdadi et al., 2017). Technology can make the work process simpler and faster. The rapid development of technology is able to increase the speed of production in terms of manufacturing. Robotic applications and technology are the current trend so that the work process becomes more practical (Shishehgar et al., 2018; X. V. Wang & Wang, 2021). Employees as the front line must be prepared for the optimization of technology to the company's performance. Business organizations will become more responsive to rapid business changes. Therefore, technology plays an important role in improving the performance of both companies and employees.

Along with the development of business dynamics and information technology, stakeholders from both the government and the private sector have begun to see information technology not only as a tool that responds to business policies and strategies that are a source of organizational competitive advantage. Therefore, the alignment of business and information technology should be placed proportionally depending on the needs of the organization. organizations that still rely on electronic business processes (e-business) instead use information technology as the main system that designs, analyzes, develops and runs their business models. Dramatic changes in the use of information technology, businesses make it a strategic information system that can encourage the creation of competitive advantage in every use.

Information technology is a type of technology in the form of technical equipment and functions to process and convey information (Dillon & Morris, 1996). Information technology includes a series of equipment that functions as a tool to process data or information, tools, manipulation tools and information management tools according to organizational needs. Technology in this era of globalization is experiencing very fast

development, it is characterized by increasingly sophisticated technological equipment and a wider range. With advances in information technology, activities carried out by humans can be completed effectively and efficiently and get maximum results.

Employee performance is a work performance or work (output) both in quality and quantity achieved by an employee in carrying out his work in accordance with the responsibilities assigned to him. (Dessler, 2017). Individual performance aims as a tool that aligns individual work expectations with organizational goals. Conformity between efforts to achieve individual goals with organizational goals will be able to realize good performance. The use of technology in a business organization must be supported by the readiness of employees. The socialization process by preparing how the use of technology will have an impact on employee performance. Sophisticated technological equipment will facilitate the achievement of performance and work results according to business targets. Operations and services become easier and optimal. Employees are able to achieve maximum performance and customer satisfaction with the quality of products produced by the company through technology optimization.

Several studies show that the application of technology affects employee performance (Nuskiya, 2018; Yuvaraj & Nadheya, 2018). Companies as business organizations must respond to rapid technological changes. This will change the order of business processes according to market needs. Business processes can be faster, more efficient, and less expensive so that they become a long-term investment. Optimizing productivity for the better through mastering technology. Process attendance, performance measurement, production, manufacturing, and detection of product quality can be made easy through technology. The use of technology is becoming more urgency that must be carried out by companies as business entities.

Implications of Technology on Employee Performance

Technology that is developing very rapidly is able to change the process of human life. Technological developments in the business world and the market must be able to run in balance with consumer demands. The human resource perspective sees technology as a big investment that must be paid for with performance and productivity (Choi & Choe, 2016; Novotná et al., 2021). The E-Commerce industry serves millions of consumers and delivers high-speed service. Therefore, mastery of technology must be one of the main components in employee competence. Some of the technology acceleration strategies that can be carried out by the company are as follows:

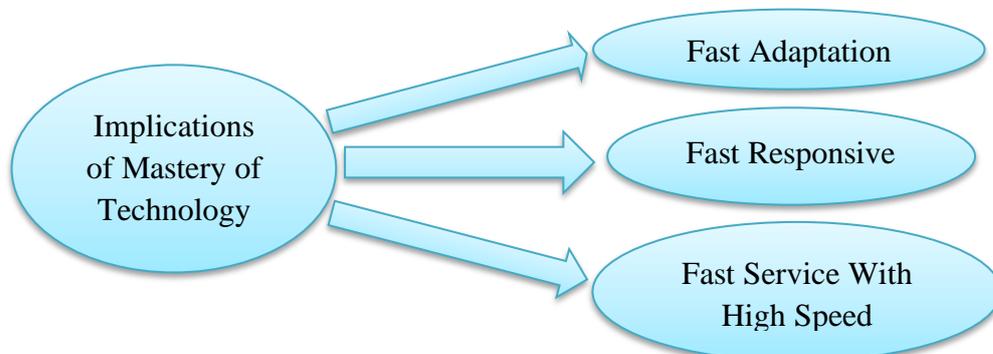


Figure 2. Implications of Mastery of Technology

Mastery of technology must make business processes more effective. The results of several studies show that changes in the E-Commerce industry are becoming more practical and flexible (Buraczyńska & Majerek, 2021). The picture above shows that mastering technology will be a challenge for companies. The implication is how performance achievement must be anticipated with fast adaptation, fast responsiveness, and fast service at high speed. Employees must have the speed of adaptation to changes in business processes. Technology will make the work process more practical. Employees must be given direction, training, and coordination to operate the technology optimally. The implications of this adaptation provide faster and more effective business operations.

Employees must be highly responsive to technology mastery. Responsiveness means that employees must learn quickly in mastering technology. The E-Commerce industry relies heavily on technology as a business operation. Employees have high flexibility in mastering technology. Very fast business changes must be responded to by business organizations and human resource preparation. Service must be provided at high speed. Consumers as business objects must be served properly. Mastery of technology must provide solutions to problems faced by consumers. Employees must provide excellent service to consumers. Consumer expectations must be met as the company's obligation for the quality of its products. Technology is a solution provided by the company to provide services with high speed and quality.

The existence of a business exists because it becomes a community need. The E-Commerce industry is one of the alternatives to meet consumer needs. Mastery of technology provides a new alternative in achieving business targets. All can be achieved in the form of employee performance as executor of mastery of technology. The existence of technology must provide new solutions and nuances for the effectiveness of business processes. Achievement of employee performance will be the focus of the company through technological updates. Employee training and development programs should be provided in accordance with technological updates. Employees can master technology in a professional and transparent manner. Technology as an investment can help the quality of business to be more effective and efficient. Therefore, mastery of technology must be prepared to improve the high quality performance carried out by employees.

Conclusion, Limitation, and Advanced Research

Based on the above description it can be concluded that to improve employee performance in a company including in the e-commerce business sector, an employee must be able to master good technology and also mature in order to achieve the goals of a company. The conceptual framework used as a research topic shows a linkage in performance improvement. Employees as the vanguard must be given increased competence related to the use of new technologies. E-Commerce industry that requires mastery of technology according to the needs of the company's business. This model shows a hard effort to be a leading sector in the e-commerce business. Human resource preparation is becoming a major perspective in today's business era. Companies should not rule out technology where the digital era has become a trend of business simplification. Business processes are becoming faster and more efficient.

This research provides recommendations to make technology a top priority for

businesses. This priority can be used as a change in the face of business uncertainty. Employee development and competency renewal must always be carried out according to business demands. Human resources as a long-term asset to prepare for new business opportunities. Every business opportunity through the use of technology. Technology readiness has become a new jargon that must be carried by all business organizations. Technology does not replace human labor and roles, but as a work partner in achieving high performance by the company.

The conclusion obtained from this simple conceptual is that mastery of technology is very much needed by employee performance. The E-Commerce industry really requires technology as the main prerequisite in dealing with business uncertainty. Employees must be given competency renewal in accordance with the new technology. Companies must allocate a special budget for investment in technology and human resources. Therefore, technology is directly proportional to the achievement of maximum performance.

Author Contributions

The role of the author has been divided into tasks. The first author designed the study accompanied by the formulation of a conceptual model. The second author developed a research model with comparisons with journals to see the conceptual implications of employee performance.

Acknowledgement

This research is supported by Paramadina University as a form of scientific development of human resource management. The ease of data collection and direct direction from the Dean of the Faculty of Economics and Business motivated the team to complete research comprehensively. Financial and non-financial support was obtained with enthusiasm and cooperation between the entire team so that this research could be completed on time.

References

- Abbas, A., Saud, M., Usman, I., & Ekowati, D. (2020). Servant leadership and religiosity: An indicator of employee performance in the education sector. *International Journal of Innovation, Creativity and Change*, 13(4).
- Alagaraja, M., & Shuck, B. (2015). Exploring Organizational Alignment-Employee Engagement Linkages and Impact on Individual Performance: A Conceptual Model. *Human Resource Development Review*, 14(1).
<https://doi.org/10.1177/1534484314549455>
- Atambo, W. N., & Momanyi, D. K. (2016). Effects of Internal Communication on Employee Performance: A Case Study of Kenya Power and Lighting Company, South Nyanza Region, Kenya. *Imperial Journal of Interdisciplinary Research (IJIR)*, 2(5).
- Benedicto, H. R., & Caelian, M. V. (2020). Work Ethics and Job Performance of Government Employees in a Component City. *Philippine Social Science Journal*,

3(2), 151–152. <https://doi.org/10.52006/main.v3i2.226>

Buraczyńska, B., & Majerek, D. (2021). E-Commerce Flexibility Measurement Model Based on Empirical Research of Polish Enterprises. *EUROPEAN RESEARCH STUDIES JOURNAL*, XXIV(Special Issue 2). <https://doi.org/10.35808/ersj/2195>

Choi, P. M. S., & Choe, H. (2016). Information technology investments and aggregate productivity. *Journal of Applied Business Research*, 32(4). <https://doi.org/10.19030/jabr.v32i4.9716>

Dessler, G. (2017). Human Resource Management fifteenth edition. *Pearson Education, Inc.*

Dillon, A., & Morris, M. G. (1996). User Acceptance of Information Technology: Theories and Models. *Annual Review of Information Science and Technology*, 31.

Eroglu, E. (2014). The Changing Shopping Culture: Internet Consumer Behavior. *Review of Business Information Systems (RBIS)*, 18(1). <https://doi.org/10.19030/rbis.v18i1.8541>

Hui, F. K. P., Aye, L., & Duffield, C. F. (2019). Engaging employees with good sustainability: Key performance indicators for dry ports. In *Sustainability (Switzerland)* (Vol. 11, Issue 10). <https://doi.org/10.3390/su11102967>

Hutagalung, R. K., Purba, E. N., Silalahi, J. T., & Putri, A. (2020). The Effect of Competence, Work Ethic, Work Discipline, and Work Motivation on Performance of Government Employee in Mentawai Islands District Health Office. *International Journal of Innovative Science and Research Technology*, 5(8), 387–396. <https://doi.org/10.38124/ijisrt20aug327>

Inuwa, M. (2016). Job Satisfaction and Employee Performance: An Empirical Approach. *The Millennium University Journal*, 1(1), 90–103.

Jiang, H., Zhao, S., Yuan, Y., Zhang, L., Duan, L., & Zhang, W. (2018). The coupling relationship between standard development and technology advancement: A game theoretical perspective. *Technological Forecasting and Social Change*, 135. <https://doi.org/10.1016/j.techfore.2017.11.018>

Kalogiannidis, S. (2020). Impact of Effective Business Communication on Employee Performance. *European Journal of Business and Management Research*, 5(6). <https://doi.org/10.24018/ejbmr.2020.5.6.631>

Khoo, V., Ahmi, A., & Saad, R. A. J. (2018). E-commerce adoption research: A review of literature. *Journal of Social Sciences Research*, 2018(Special Issue 6). <https://doi.org/10.32861/jssr.spi6.90.99>

Li, J. (2016). Technology advancement and the future of HRD research. In *Human Resource Development International* (Vol. 19, Issue 3). <https://doi.org/10.1080/13678868.2016.1181846>

- Majid, I. A., & Aleissae, M. A. N. (2020). Impact of technology on employees productivity through employee engagement within oil and gas industrial sector in UAE. *International Journal of Advanced Science and Technology*, 29(9 Special Issue).
- Mathis, R. L., Jackson, J. H., & Valentine, S. R. (2015). Human Resource Management: Essential Perspectives. In *Human Resource Management* (7th ed.). Cengage Learning, Boston.
- Ngozi Nzewi, H. (2016). Talent management and employee performance in selected commercial banks in Asaba, Delta State, Nigeria. *European Journal of Business and Social Sciences*, 8(1), 01–01. <https://doi.org/10.21859/eulawrev-08015>
- Novotná, M., Volek, T., Rost, M., & Vrchota, J. (2021). Impact of technology investment on firm's production efficiency factor in manufacturing. *Journal of Business Economics and Management*, 22(1). <https://doi.org/10.3846/jbem.2020.13635>
- Nuskiya, A. F. (2018). The Effect of Information Technology on Employees' Performance in the Banking Industry in Sri Lanka. Empirical Study Based on the Banks in Ampara District. *European Journal of Business and Management*, 10(16).
- Pankowska, M. (2019). Information technology outsourcing chain: Literature review and implications for development of distributed coordination. *Sustainability (Switzerland)*, 11(5). <https://doi.org/10.3390/su11051460>
- Parry, E., & Battista, V. (2019). The impact of emerging technologies on work: a review of the evidence and implications for the human resource function. *Emerald Open Research*, 1. <https://doi.org/10.12688/emeraldopenres.12907.1>
- Rahayu, R., & Day, J. (2017). E-commerce adoption by SMEs in developing countries: evidence from Indonesia. *Eurasian Business Review*, 7(1). <https://doi.org/10.1007/s40821-016-0044-6>
- Sekaran, U., & Bougie, R. (2016). Research Methods for Business : a Skill-Building Approach. In *Nucleic Acids Research*.
- Shahdadi, H., Yazdanpenah, A., & Ghavam, A. (2017). Investigate the Relationship between Information Technology and Employees' Productivity with Mediating Role of Knowledge Management : Case Study : Imam Reza Hospital of Sirjan. *World Family Medicine Journal/Middle East Journal of Family Medicine*, 15(6). <https://doi.org/10.5742/mewfm.2017.92984>
- Shishehgar, M., Kerr, D., & Blake, J. (2018). A systematic review of research into how robotic technology can help older people. In *Smart Health* (Vols. 7–8). <https://doi.org/10.1016/j.smhl.2018.03.002>
- Tamilarasi, R., & Elamathi, N. (2020). E-Commerce- Business- Technology- Society.

International Journal of Engineering Technologies and Management Research,
4(10). <https://doi.org/10.29121/ijetmr.v4.i10.2017.103>

Wang, I. K., Qian, L., & Lehrer, M. (2017). From technology race to technology marathon: A behavioral explanation of technology advancement. *European Management Journal*, 35(2). <https://doi.org/10.1016/j.emj.2017.01.006>

Wang, X. V., & Wang, L. (2021). A literature survey of the robotic technologies during the COVID-19 pandemic. *Journal of Manufacturing Systems*, 60. <https://doi.org/10.1016/j.jmsy.2021.02.005>

Yuvaraj, S., & Nadheya, R. (2018). A study on the role of technology on employee behaviour and their performance. *International Journal of Mechanical Engineering and Technology*, 9(7).

COPYRIGHTS

©2021 The author(s). This is an open access article distributed under the terms of the Creative Commons Attribution (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, as long as the original authors and source are cited. No permission is required from the authors or the publishers.



HOW TO CITE THIS ARTICLE

Azmy, A., Malanov, F. (2021). Optimization of Technology Mastery as Part of Increasing Employee Performance in the E-Commerce Industry. *International Journal of Management, Accounting and Economics*, 8(10), 782-794.

DOI: 10.5281/zenodo.5977629

URL: https://www.ijmae.com/article_141989.html

