

Digital Employee Experience (DEX): A Preliminary Study

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ABSTRACT

In this article, we will present some preliminary findings on the digital employee experience (DEX), which is influenced by an organization's digital transformation strategies. DEX evolved from employee experience (EX), but it has been modified to work in the digital world. Industrial Revolution 4.0 (IR 4.0) and digital transformation boost the organization awareness about positive DEX. This article also explored the success factors of DEX and its implication to organizations. Our discussion will be based on the Human Resource (HR) approach. We outline how organisations believe that their employees are the most valuable resource because they are considered internal customers and end-users who directly use technology and digital platforms that contribute to the organization's profitability. Review of literature from previous academic research articles and practitioners' opinion papers conducted as a methodology of this research. The factors studied will guide the organization on how to create great DEX.

Keywords: *Employees Experience, Digital Transformation, Digital Employees Experience*

1.0 Introduction

The industrial revolution is a term used to describe the progress and development and manufacturing industries of the world. It can also be defined as the transformation of manufacturing and manufacturing processes from technology to more modern and sophisticated technology. Among the transformations that have taken place include the use of machines to replace manpower in the manufacturing and production industries. To date, the world has undergone several industrial revolutions and is now facing the Fourth Industrial Revolution (IR 4.0). IR 4.0 involves automation technology and presents new challenges for all sectors, which require changes to be implemented in tandem with digital transformation to remain competitive. The discovery of new technologies such as automation, Internet of Things (IoT), analytics and big data, simulation, systems integration, the use of robotics and the cloud in IR 4.0 will accelerate the progress of the modern world landscape (Zafir et al., 2018). It has a strong impact on the nature of the job. The widespread use of digital technology in everyday life, especially in work, influences the interaction method with the environment. The nature of work has changed because of changes in how information and knowledge are accessed via various Internet mediums. Digital skills are becoming increasingly necessary for survival in a digital world (Moller et al., 2012). It results in increased efficiency and decreases the time required to complete tasks and resolve issues in the digital world, as well as making life easier for employees and providing opportunities for personal and professional development. Additionally, as a result of the covid 19 pandemics, the way work is done is changing, shifting more toward digitalization. The Covid-19 pandemic triggered a nationwide lockdown and normalised social withdrawal. This situation has unavoidably increased the use of digital technologies, impacted new ways of working and living and prompted organisations to adopt work-from-home policies (R. De' et al., 2020).

Digital transformation continues to occur in lockstep with evolving technological advancements, and it requires a key that reminds managers that organisations operate because of their people (Westerman, 2016). Kane et al. (2019) suggested that organisations must equip their employees with digital skills in order to maximise the return on their technology investments. Additionally, Westerman (2016) emphasised the importance of striking a balance between managing digital matters and employees in order to avoid jeopardising the relationship with employees. Digital transformation is critical to the way businesses operate. Organizations should rethink and upgrade their digital employee experience (DEX) to achieve effective digital transformation and increase productivity.

1.1 Objective

This paper aims to conceptualize the concept of (DEX), identify its components and present a conceptual framework for this concept. This paper purpose is to study the evolution of DEX and its components, and implications as the ability of organizations to survive in situations where digital technologies exist and are used, and it is in line with IR 4.0

2.0 Methodology

Review of literature on DEX conducted in academic resources and practitioners' articles. This study will guide organizations to improve DEX in workplaces and rethink their relationship with their employees to survive in the current competitive business environment.

2.1 Digital Transformation

The development of digitalization continues to occur, and the effects of pandemics are increasingly occurring. All organizations practice digitization since work from home (WFH) has been implemented. Digital transformation is a change that occurs in an organization that involves the structure, processes, functions, and business models which are the result of the implementation of digital technologies (such as the Internet of Things, artificial intelligence, machine learning, augmented reality, computing in memory) (Matt et al., 2015; Sahu et al., 2018). This is in line with the definition described by Hess et al. (2016), which carried the meaning of the transformation that took place involved with the changes of digital technologies use that create an organizational business model, process, product or organizational structure. It becomes the most ongoing management challenge for powerful companies in the past and future.

Technology turbulence and IR 4.0 targets also play crucial factors in digital transformation. Digital transformation is an ongoing procedure for applying new digital technologies in the routine affairs of an organization (Warner & Weager, 2019). It assists the way organization's operation easier and faster as effectively as according to organization goals and shows the excellent effect on organizational performance. Therefore, the use of technologies such as social media and big data can affect the organization process. To ensure an organization looking to generate an effective customer experience, it must adapt and improve its employees and increase their productivity and aggregation. It is because employees are the important resource of the organization, and this must be considered to implement

and communicate information about digital transformation (Zinck, 2017).

2.2 Digital Employees Experience

The evolution of the Human Resource (HR) approach has taken place in organizations over time. Morgan (2017) described that HR approaches can be categorized into four phases. The first phase refers to utilities. The stress on utilities and usefulness was a major component of the work. However, high productivity in employees' performance is stressed in the second phase, which is a key factor in the achievement of an organization. While, in the third phase was the engagement in which the organizations were focusing on methods to benefit employees and try to identify the ways and reasons they work, rather than acquiring more profit, and enforcing power over employees. Then this phase moved to the fourth phase, employee experience (EX), also considered a silent revolution among organizations around the world. In this phase, organizations trying to determine ways to create an organization where employees want to appear. This revolution has changed the actions of employers that involve the perception of employees as assets to the perception of them as human beings. Employers also recognize the need to understand employees by identifying how they function best and designing solutions to suit their needs, rather than forcing them to submit and work within certain processes and norms (Nelson & Doman, 2017). In general, the EX is the result of an organization or employment action that treats an employee as a customer or employee involvement (Ludike, 2018).

The EX starts with the situation where a person finds a job vacancy at the organization. The person or a candidate may already be familiar with the product or service of the company, then begin to imagine a job and career with the company. The string of it, that person initiates a process with the company. Beginning with the application process to the employee selection and bidding process, and on to the day-to-day work routine, each employee needs to achieve and expect the experience to meet those needs. This is considered as the employee experience (Raia, 2017).

Technology development and rapid time circulation cause the experience to change online and digitally. Digital experiences expectations have increased more and more as employees compare each interaction with their best online user experiences. By investing an organization's resources in upgrading the digital experience for employees, organizations can generate a great experience and enhance organization performance. Robertson (2018) described that DEX is the amount of digital interaction in the employment atmosphere. DEX also can

be defined as the total number of digital interactions between workers and their organizations that use digital technology in doing work (Thoughtfarmer Group, 2019). Organizations need to be aware that employees are internal customers and need to take the initiative to ensure all tasks are performed digitally to produce a good experience because an organization can only thrive and grow when its users are highly satisfied and productive.

Gheidar & ShamiZanjani (2020), summarized that DEX is the result of a comprehensive and holistic perception of employees in the digital workplace as a result of the amount of direct and indirect interactions employees make with their careers, other organizational members, customers, strategies, systems, cultures, brands, organizational rivals, and it too influenced by individual characteristics. This definition clearly shows that DEX is the result of employees' perceptions that are influenced by their characteristics toward digitally performed work processes related to careers, relationships with members and other organizational systems within the organization. In general, the DEX stress employees' interactions with their digital devices and the digital workplace, while employee experience, however, depends on the interactions of brands with its users or employees (Digital Adoption Team, 2019). Thus, DEX will affect the productivity of individuals and organizations, especially in a digital environment.

2.3 Factors influencing Digital Employee Experience

To ensure creating a successful DEX, several factors have been identified based on academic studies and practitioners' opinions. Gheidar & Shami Zanjani (2020) proposed that there are DEX components, which are individual, organization internal and external factors. Technologies and data capabilities are the important factors to create a more valued experience for customers. Verhoef, et.al (2016) indicated to leverage current firm knowledge and resources, technologies and data are the main sources and factors. Big data such as customer journey data have capabilities to personalize services and offers to the firm. Additionally, the most powerful assets in the digital era now are data itself. Now data is the main factor and very useful. (Ng & Wakenshaw, 2017).

The great DEX depends on successful digital transformation. Digital transformation is influenced by the business strategy implemented by the company (Verhoef et al., 2019). To achieve successful digital transformation, digital resources are needed for firm transformation to adapt to digital change (Eggers & Park, 2018), particularly regarding a flexible organizational structure for digital change. Previous research has explored that digital transformation has taken into account

the organizational structure, which favours a flexible structure. Therefore, a flexible form of organization needs to be implemented for a rapid response to continuous digital change. This approach focuses on responsive ways of working, marking short cycles to test and update market assumptions quickly through trial and error (McGrath, 2010).

Various digital development strategies exist for digital organizations, but the most important development strategies involve the use of digital platforms (Parker et al., 2016). The current research situation highlights the significance of flexible IT (Cha et al., 2015), robust and scalable operational strategies (Sebastian et al., 2017), and new enterprise platforms (El Sawy et al., 2016), as part of a digital infrastructure that responsive.

Organizations targeting to transform digitally not only focus to have digital assets, however, need to acquire or develop capabilities related to digital networking, digital resilience, and platforms too. If all the investment strategies on digital assets, provisioning of great digital platforms, data, and technology capabilities, but there are no skills to use it, this will create negative employees' experience. Employees cannot adapt to it digitally. Thus, it is very much for investing in training programs and initiating learning organizations. Learning organizations will create a continuous learning culture that boosts the upgrading skills, abilities, and knowledge of employees (Tisch et al., 2016). Great DEX is the effect of digital literacy skills that employees have. This skill focuses on the reality that information is not only text but also includes, videos, still images, sounds, interactive websites (Hin, 2005). Employees are not only able to visualize the potential that arises from digital technology. They also can adapt their behaviour and find innovative techniques in their routine practice through the use of technology and learn from technology interaction. Therefore, improving the employees' digital literacy led them to leverage one or more capabilities using their digital technology (Du et al., 2019). These skills indirectly contribute to great employee experience.

To support learning organization culture, the role of the manager is very important. Edmead (2016) clarified that as digital leaders they need to continue to challenge an organization to make certain that transformation becomes a productivity and competitive advantage for the organization. Drucker (2017) suggests that a leader should be skilled in adapting to unforeseen changes that occur by improving the decision-making process to be more creative and credible.

3.4 Implication of great Digital Employee Experience

Employees are highly valued, communicating with the organization well when they have a great experience in the organization. They become more responsive to what they do and more productive (Morgan, 2017). Based on research by Sage people (2018), according to 72 per cent of employees, their productivity will increase when they have a great experience, interesting to say, this percentage involves 92 per cent of the workforce among the younger generation, which is half of the world's workforce in the 21st century.

Great DEX will create happier and more productive employees. Research conducted by De Neve (2019), found when employees feel happy, their productivity will increase by 13 per cent. Workplace to be considered as a place for increased employee happiness while they work. Awareness of this has led most organizations to start seeing that employee satisfaction is crucial especially when it is in a digital transformation initiative. According to the Economist Intelligence Unit (2018), 44 per cent of executives involved in the study considered improving employee efficiency and a major emphasis on productivity in their organization's digital strategy. They believe that happy workers will accomplish organisational goals and drive great results and make all the difference.

IR 4.0 agenda led to organizations slowly changing digitally. Today, generation Z is 18 per cent of the world's population. Generation Z is a group born in the late 90s. They are the ones who will lead the country in the future and are responsible for the construction of IR 4.0. Their interests are more focused on computer technology and internet browsing technology of this group which is in communication. Generation Z also stimulates internet generation, digital generation, media generation and generation.com (Levickaite, 2010). A great DEX has been the main work culture and consideration, and also will create better retention and recruiting especially for Gen Zers.

To ensure that great DEX delivery is an ongoing and demanding process, continuing operations to the next level can help achieve and meet what end-users need while considering the appropriate and sufficient time and resources to make something planned doable. This could involve more information technology (IT) innovation that includes investments in new technology, cloud migrations, integrations, automation, or another trending innovation. All these actions are greater savings for the organization when giving IT department or digitally skilled workers the equipment or devices they need to monitor, monitor, and even predict possible problems that will arise can provide a good return on investment (ROI) in the long

term.

4.0 Conclusion and Suggestion

This research examines how digital transformation affects EX and the future of employment. Based on the recent situation in a business area that focused on technology and digital in line with IR 4.0, the balancing between employee productivity and digitalization is very important. Consideration to EX will change to DEX, one of the results of the implementation of digital transformation in the workplace. Encouraging knowledge sharing and collaboration across departments will increase employee engagement and empowerment. Indeed, in the long run, the impact of digital transformation will result in boosted high revenue, decreased operating management costs and indirectly meet good customer satisfaction (Cascio & Montealegre, 2016). Nonetheless, to ensure digital transformation takes place, organizations need to review the company culture, align the employee with the company goals and improve internal communication.

It should be noted that, although this concept is very important for the future of employment, previous studies related to DEX are still lacking and insufficient. In this study, it has been attempted to explore what is the DEX and its evolution from the first of HR approach, and growth according to the digital transformation era that supports the IR 4.0 agenda until the organization realizes that employees are not merely assets, but employees are internal customers and end-users who contribute to the organization's profitability. Generally, this paper attempts to study the successful DEX factors and the implication to the organization. Great DEX was affected by successful digital transformation strategies that equipped the work way with great digital and technology investment. Great DEX also led to high employees' satisfaction and can also mean good customer satisfaction rates that increase valuations of the stock market (De Neve, 2019). A great DEX is perfect for any company's basic policy (Zhao, 2019) and fits with the current work and business environment.

References

- Cascio, W.F., & Montealegre, R. (2016). How technology is changing work and organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, 3, 349-375.
- De Neve, J. (2019). Happy workers 13% more productive, finds Oxford Saïd research. Retrieved on 29th June 2021 from <https://www.sbs.ox.ac.uk/news/happy-workers-13-more-productive-finds-oxford-said-research>
- De'. R., Pandey, N., & Pal, A. (2020). Impact of digital surge during Covid-19 pandemic: A viewpoint on research and practice. *International Journal of Information Management*. Vol. (55).
- Digital Adoption Team (2019). The digital employee experience: The complete guide. Retrieved on 30th June 2021, from <https://www.digital-adoption.com/digital-employee-experience/>
- Du, W., L.Pan, S., E.Leidner,D., & Yinga, W. (2019). Affordances, experimentation and actualization of FinTech: A blockchain implementation study. *Journal of Strategic Information Systems*, 28, 50-65.
- Drucker, P. (2017). Human prosperity in a changing world. The future economic man. PDC 2017
- Economist Intelligence Unit (2018). Best practices for mastering multicloud strategy. Retrieved on 29th June 2021, from <https://www.dxc.com/us/en/insights/perspectives/paper/Best-practices-for-mastering-multicloud-strategy>
- Edmead, M. (2016). Digital transformation: Why it's important to your organization. Retrieved on 27th June 2021, from <https://www.cio.com/article/3063620/digital-transformation-why-its-important-to-your-organization.html>
- Eggers J. P., & Park, K. F. (2018). Incumbent adaptation to technological change: The past, present, and future of research on heterogeneous incumbent response. *Academy of Management Annals*, 12(1), 357–389.

- H. ElSawy, A. Sultan-Salem, M. Alouini & M. Z. Win (2016). Modeling and analysis of cellular networks using stochastic geometry: a tutorial. *IEEE Communications Surveys & Tutorials*, 19 (1), 167-203.
- Gheidar, and ShamiZanjani (2020). Conceptualizing the digital employee experience. *Strategic HR Review*, 19 (3.), 131-135.
- Hess, T., Matt, C., Benlian, A., & Wiesböck, F. (2016). Options for formulating a digital transformation strategy. *MIS Quarterly Executive*, 15 (2), 123-139.
- Hin, L. (2005). *Handbook of research on literacy in technology at the K-12 level*. Idea Group Publishing. Philadelphia.
- Jan-Emmanuel (2019). Happy workers are 13% more productive. Retrieved on 29th June 2021 from, <https://www.sbs.ox.ac.uk/news/happy-workers-13-more-productive-finds-oxford-said-research>
- Kane, G. (2019). *The technology fallacy: how people are the real key to digital transformation*. MIT Press, Boston, MA.
- Levickaite, R. (2010). Generations X, Y, Z: How social networks form the concept of the world without borders (the case of Lithuania). *LIMES: Cultural Regionalistics*, 3, (2), 170-183.
- Ludike, J. (2018). Digital employee experience engagement paradox: future proofing retention practice. in Coetzee M., Potgieter I., Ferreira N. (Eds) *Psychology of Retention*. Springer, Cham.
- Matt, C., Hess, T., & Benlian, A. (2015). Digital transformation strategies. *Business and Information Systems Engineering*, 57 (5), 339-343.
- McGrath, R.G.(2010). Business models: A discovery driven approach. *Long Range Planning*, 43(2-3), 247-261.
- Moller, L., Robison, D., & Huett,JB. (2012). *Unconstrained learning: Principles for the next generation of distance education*. The Next Generation of Distance Education. Boston, MA: Springer.

- Morgan, J. (2017). *The employee experience advantage: How to win the war for talent by giving*. Wiley Publisher.
- Nelson & Doman (2017). *Employee experience (How to build an EX-centric organization)*. KennedyFitc. Zurich.
- Ng, I.C.L., & Wakenshaw, S.Y.L (2017). The internet-of-things: Review and research directions. *International Journal of Research in Marketing*, 34(1), 3–21.
- Parker, GG., Van Alstyne, MW., & Choudary, SP. (2016). *Platform revolution: How networked markets are transforming the economy and how to make them work for you*. WW Norton & Company.
- Raia, M. (2017). Providing a better digital experience for employees. *Strategic HR Review*, 16 (2), 71-75.
- Robertson, J. (2018). Digital employee experience is where the action will be. Retrieved on 28th June 2021 from <https://www.cmswire.com/digital-workplace/digital-employee-experience-is-where-the-action-will-be/>
- Sage people (2018). *Why your workforce isn't working?* SagePeople, 2-7.
- Sahu, N., Deng, H., & Mollah, A. (2018). Investigating the critical success factors of digital transformation for improving customer experience. CONF-IRM 2018 Proceedings.
- Sebastian, IM., Ross, JW., Beath, C., Mocker, M., Moloney, K.G., & Fonstad, NO. (2017). How big old companies navigate digital transformation. *MIS Quarterly Executive*, 16 (3), 197–213.
- Thoughtfarmer Group. (2019). *What is the digital employee experience?* Retrieved on 29th June 2021 from <https://www.thoughtfarmer.com/blog/what-is-the-digital-employee-experience/>
- Tisch, M., Hertle, C., Abele, E., Metternich, J., & Tenberg, R. (2016). Learning factory design: a competency-oriented approach integrating three design levels. *Int. J. Comput. Integr. Manuf*, 29, 1355-1375.

- Verhoef, P., Kooge, E., & Walk, N. (2016). *Creating value with big data analytics – Making smarter marketing decisions*. Routledge.
- Warner, K.S.R. & W€ager, W. (2019). Building dynamic capabilities for digital transformation: an ongoing process of strategic renewal. *Long Range Planning*, 52, 326-349.
- Westerman,G. (2016). Why digital transformation needs a heart. *MIT Sloan Management Review*, 58 (1), 19-21.
- Zafir, MM., Fazilah, MH., & Mohd Nazmy,AL. (2018). Pengurusan sumber manusia hijau mendepani industri 4.0. *Proceeding of the 5th International Conference on Management and Muamalah 2018 (ICoMM 2018)*
- Zhao, D. (2019). Happy Employees, Satisfied Customers: The Link Between Glassdoor Reviews and Customer Satisfaction. Retrieved on 28th June 2021 from <https://www.glassdoor.com/research/employee-reviews-customer-satisfaction/#>
- Zinck, B.M. (2017). If you're serious about digital transformation, start with employee experience. Retrieve on 28th June 2021 from <https://diginomica.com/if-youre-serious-about-digital-transformation-start-with-employee-experience>