A STUDY ON THE EMPLOYEES' PERCEPTION TOWARDS DIGITAL DISRUPTION: OPPORTUNITIES AND CHALLENGES

Anupa Baliga B. S. [1]
Ms. Varsha Rani [2]

Abstract:

The advent of technology has created a new competitive arena for the organisations in this rapidly changing global economy. Organisations must bring in new technology and manage the challenges that go along with implementing the change. Digitalisation is transforming business models, processes and strategies. Disruptive technology is an innovation that significantly alters the way that businesses, industries or consumers operate. Changes of this nature can provide significant benefits to an organisation but can also present many challenges that need to be managed to yield a positive outcome. Identifying various challenges of the workforce due to technical disruptions is an essential area of concern. The study attempts to understand the perception of employees towards digital disruption. It also attempts to identify the issues and challenges faced by the employees and to suggest the measures to mitigate the challenges. The study is based on empirical evidence and also on secondary data like e-journals. The samples have been collected through convenience sampling method. Digitalisation transforms the way people work every day, and it is imperative that employees help advance this change. Organisations can increase their ability to successfully implement these changes by transforming its existing resources, processes and values to take full advantage and reduce the challenges.

Key words: Technological disruption, employees' perception, challenges

Introduction

Organisations need to adapt to an ever changing environment to remain competitive in this global economy. The business world is moving towards a phase in which they are required to change their systems in order to embrace the era of digitalization. Technology explosion has brought about a paradigm change in the organisation and human resource must keep up with the speed. It requires businesses to focus on the effective use of, and investment in, technology and finding new and more ways of working and organizing.

Concept

Disruptive technology is defined as a technology that considerably changes the way businesses operate. Digital disruption consists of breaking down long established business models. It is therefore important that employees understand the opportunities and challenges posed by digital disruption and allow the organisation to come up with processes and systems that suit their organisational and customer needs and achieve organizational goals.

In the past, disruption at work was driven by the supplier or the service provider, for example when banks began to provide ATMs, phone banking service and enabled cashless transactions through the introduction of credit cards and debit cards.

Today, it would seem that the real threat and opportunity in technology's disruption lies in the evolution of customer and employee behaviour, values and expectations. The continuous advances of information and communication technology have enabled the scope of human activity to expand continuously in the electronic space and to create a variety of changes in the ways that economic activity is conducted. The four distinctive stages of information and communication technology within this era:

[1] **Assistant Professor, Department of P G Studies in Commerce, Besant Women's College**

[2] **Assistant Professor, Shree Devi College**

Enterprise computing: This first stage was based on mainframe computers where the focus was on improving the efficiency of the physical world by analyzing its characteristics in the electronic space and then modifying the physical space.

End-user computing: The second stage was based on personal computers where the focus was on supporting productivity improvements of individuals, particularly business professionals.

Strategic computing: The third stage was basedon communication technology. Companies combined the internet and enterprise applications system such as enterprise resource planning, customer relationship management, supply chain management, material requirement planning, human resource management and enterprise-form automation systems to support business processes and inter-organizational activities.

Ubiquitous computing: This concept refers to an environment in which computational technology permeates almost everything, thereby enabling people to access and control their environment at any time and from anywhere. In Latin, ubiquitous means being everywhere. This new stage focuses on linking the physical world directly with the electronic space, thereby creating a ubiquitous space that allows a level of complexity, speed and quality not possible before.

Opportunities of digitalization:

Companies throughout the world make use of digital technology in order to enhance the service level delivered to their customers and the efficiency and effectiveness of their business. By applying digital systems and technologies, organizations can tend to attain high maturity and distinguish themselves from ordinary entities and their competitors. The arrival of the digital erain organizations has brought a multiple benefits that includes cost minimization, enhanced customer experience and service, multiple customer behavioural data bases and competitors trends. These opportunities will benefit the organizations based on the preparedness or the extent to which digitalization has been adopted by them.

Effects of disruptive technology:

Although companies today have trouble capitalizing on the potential efficiencies, cost savings, and new opportunities created by ubiquitous computing, its various uses and its portfolio of underlying technologies are expanding. Here computing devices refer not only to the abundant supply of personal computers, but also to embedded (enabled by microminiaturization) and networked (empowered by increased speed and bandwidth of communication networks) devices. These include industrial sensors and processors, speech recognition and eye-tracking devices, mobile devices, radio-frequency-identification and near-frequency-communication tags and labels, global positioning systems (GPS)- enabled devices, smart televisions, car navigation systems, drones, wearable sensors, robots and 3D virtual reality and others. The development of easy-to-use interfaces and their connection to communication networks have, in turn, brought about new ways of linking people, computers and objects.

Merging the physical and electronic spaces also has implications for privacy and security.Employees can integrate their use of Facebook, Twitter, Google and other social media into their daily routines and companies can integrate social media into their intranets, so that they can share internal information and knowledge with employees, and even with suppliers and customers if desired.

Review of Literature:

Karimi and Walter (2015) found that the establishment of autonomous business units, along with the staged allocation of resources to innovative projects, is essential to create new processes in responding to digital disruption.

Fisher and Lynch (2015) recommend that companies look at cross functional teams to spearhead digital initiatives and tackle the complexity of change. These teams should ideally comprise of a diverse mix of technical and business stakeholders, who could be described as enthusiastic and possess characteristics such as “start-up” ingenuity.

Bradley et al (2015) stated that the dawn of the digital era is best described as a digital vortex where digital disruptions occur at the highest velocity rate coupled with immense shocks that businesses will be subjected to. It was also argued that the digital chaos and shocks brought about because of digital change makes it very complex and unpredictable for businesses to correctly and timeously predict the possible impact of digital change to their business functions.

Strydom et al. (2016) identified the digital change in the business environment as a technological factor which occur in the macro-environment. The macro-environment

is much broader in scope and exist outside the business itself making it difficult for businesses to take charge of such changes. In fact, businesses have no control of changes in the macro-environment and the best they can do is to interpret the changes and realign the business processes in order to adapt. The technological environment (digitalization) is considered one of the most volatile variables in the business environment.

Bolden &O'Regan, (2016) in their article suggested that process changes and organizational shifts are, in most, cases what enable companies to harvest the opportunities of disruption.

Wayne F Casclo and Ramiro Montealegre (March 2016) in their article summarized and interpreted the progress, direction and purpose of the current research on the effects of technology on work and organisations.

Plummer et al., (2017) in their findings summarized that companies should establish digital disruption as a critical part of the innovation initiative and develop a culture where creating disruptive innovation plans is achieved in addition to the reactive management of disruption.

Mark Provost, Kevin Allan Johnston and Maureen Tanner (October 2018) in their study indicate that IT managers perceive digital disruption as both technological disruption and sense making mechanism for changes in work practices. The participants broadly shared a common perception of the opportunities and challenges, being new ways of working through the effective use of technology, the potential for new forms of competition and a growing challenge in attracting and retaining skilled IT professionals.

BertineMulomboMujinga and Nita Sukdeo (2018) in their research study established that there were several barriers such as an improper digital strategic plan, stakeholder engagement and lack of communication, which tend to inhibit the digitalization process. Additional concerns that inhibited the digitalization process was the flow of information among all stakeholders concerned, regarding digital strategy such as employees, suppliers, customers and the management.

Purpose of the study:

Technology development always comes with both positive and negative impact on business. Employees are the real assets of an organisation without whom technology cannot be applied.It is imperative to identify various challenges faced by the employees and this study attempts to understand the perception of employees towards digital disruption.

Objectives of the study:

- To understand the perception of employees towards digital disruption.
- To identify the issues and challenges related to technology, faced by the employees.
- To suggest the measures to mitigate the challenges.

Research Design:

For this research study the Primary Data is collected through an online survey using a structured questionnaire. The data is collected from a sample of 51respondents of Mangaluru city for understanding the perception of employees towards digital disruption. Convenience sampling method is being adopted by the researchers. The data collected from the respondents are coded, tabulated and analyzed into logical statements. Descriptive statistical tool - Percentage is being used to arrive at findings and conclusion. Secondary data is collected from the available literature, journals and web search wherever fits.

Limitations of the study:

There might be a number of technology related issues and challenges faced by the employees, but this study is confined only to a limited number of issues. The sample size is confined to only 51which have been selected based onconvenience method. The findings of the study cannot be generalised as the respondents may not be large enough to represent the entire city.

Data analysis and Interpretation:

Table 1 showing the work experience and perception of respondents to learn new technologies:

Experience\ Perception	Excited	Hopeful	Worried	Frustrated	Total
below 5 years	26	2	-	2	30
5 to below 10 years	5	-	-	-	5
10 to 15 years	2	2	-	-	4
15 years and above	8	4	-	-	12
Total	41	8	-	2	51

From the above table it can be seen that 30 respondents are having less than 5 years of work experience. 26 respondents are quite excited when it comes to learning new technologies.

Table 2 showing the number of hours the respondents use the technology at work

No. of hours technology is used in a day	No. of respondents
Less than 2 hours	2
2 – 5 hours	8
5 – 8 hours	20
8 – 11 hours	16
more than 11	5
Total	**51**

From the above table, we can observe that out of the total respondents 20 of them use technology at work for a minimum of 5 to 8 hours in a day and 16 respondents use the technology for 8 to 11 hours.

Table 3 showing the technology tool used by the respondents in doing their job

Technology Tool used	No. of respondents	Percentage
Email	23	26
Internet	44	51
Cell or Smart phone	11	13
Social networking sites	7	8
Others like MS-Excel, Access Word & VBA	2	2
Total	51	100

From the above table we can analysethat 51% of the respondents use internet as a technology tool in doing their job

Table 4 showing the opportunities and challenges due to technology

Factors	Increased	Decreased	No change
Speed	46	-	5
Workload	14	27	10
Responsibilities	31	7	13
Due to technology creative	25	9	17
Level of stress due to technology	8	19	24
Technology impact on job opportunities	30	15	6

The above table shows that the speed with which we can accomplish the work has increased. And as the technology expands respondents workload decreases, but the responsibilities due to technological advances in the job has increased. Due to technological advancement creativity level among the respondents has increased. The above table seems to show no change in the level of stress due to technology. Technological impact creates increased level of job opportunities.

Table 5 showing the reason for increase in stress level due to technology

Reasons for increased stress level	No. of respondents	Percentage
Too little training	26	51
Too complicated	6	12
Rate of change is too fast	16	31
Others	3	6
Total	51	100

The above table indicates that one of the reason for increase in stress level while using technology is too little training is given. Few respondents feel moderate level of stress.

Table 6 showing impact of technology on health

Impact	No. of respondents	Percentage
Negative	25	49
Positive	7	14
Not significant	13	25
No opinion	6	12
Total	51	100

From the above table we can observe that 49% of the respondents have negative impact of technology on their health.

Table 7 showing the interference of technology with personal time

Interference	No. of respondents	Percentage
Always	10	20
Often	15	29
Sometimes	23	45
Never	3	6
Total	51	100

From the above table we can analyse that only at times technology does interfere in personal time.

Table 8 showing the perception of respondents regarding the current relationship between employees and technology

Perception	No. of respondents	Percentage
People are the masters and technology is a tool we are using wisely	26	51
Technology is becoming master and people are becoming its subjects	19	37
No opinion	6	12
Total	51	100

From the above table 26 respondents are of the opinion that people are the masters and technology is a tool which should be used wisely.

Findings:

- 50.98% of the respondents with less than 5 years of experience are excited to learn new technologies.
- Out of 51 respondents, 20 of them use the technology for 5 to 8 hours in a day to perform their work.
- Most of the respondents use internet in performing their task at work.
- Majority of the respondents are of the opinion that with the use of advanced technology the speed with which work can be accomplished and the responsibilities have increased, the workload has decreased and the level of stress remain unchanged. As per the study, creativity level and job opportunities have increased due to advancement in technology which may be considered as the opportunities of digitalization.
- Majority of the respondents consider increase in stress level may arise due to inadequate training. Respondents are also with the opinion that advancement in technology is yet to be accepted by all and it has multiple challenges.
- 49% of the respondents are of the opinion that technology has negative impact on health and technology at times does interfere in personal time.
- 51% of the respondents are of the perception that people are the masters and technology is a tool we are using wisely.

Suggestions

- Organisations need to develop the employee capacity towards the use of advanced technology by providing them adequate job training, professional development programmes, enhancing appraisal system, providing skill specific compensation and so on.
- Change in the work pattern and advice from work-environment experts who can suggest preventive measures by analyzing the condition, can help in reducing the negative impact of technology on health.
- To successfully integrate the technology change into the daily routine, organisations can have a well-defined implementation plan, an effective training plan and have open communication between employees and management.
- If technology is to enable people at work, it should foster self-motivation and well-being, enhance productivity and promote job satisfaction, organizational commitment among workers.
- Organisations should intensify investment in re-skilling their employees in order to strengthen their capabilities. Also, it is important for the employees to understand and implement various solutions themselves which can help them remain employable.

Conclusion

It is not going to be the survival of the fittest anymore, but rather the survival of the one that adapts well to change – both external that is from customers and internal that is from employees.It is apparent that almost all the respondents of this study have a positive attitude towards promoting the adoption of technology at workplace. Businesses need to foster a culture within the organisation to embrace change rather than react to change or be threatened by technology.

References

- Mark Prevost, Kevin Allan Johnston, Maureen C. Tanner (September 2018), 'Awareness and Preparedness of IT managers to digital disruption: A South African Exploratory Case Study', The African Journal of Information Systems,Volume 10, Issue 4, Article 2, ISSN 1936-0282, pp 280-291.
- Wayne F Cascio, Ramiro Montealegre (March 2016), ' How technology is changing work and organisation', Annual Review of Organisation Psychology and Organizational Behaviour,
- Rob Delaney, Robert D'Agostino (2015), 'The Challenges of Integrating New Technology into an Organization', Mathematics and Computer Science Captones, pp3-37.
- BertineMulomboMujinga and Nita Sukdeo (2018), 'Corporate digital preparedness: A case study for a South African Private organisation', Proceedings of the International Confernece on Industrial Engineering and Operations Management Paris, France, pp 489-495.
- www.google.com