

Improving Industries through Technology within a 'New Normal' world

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Abstract

Global industries thriving before the pandemic have incurred great losses, due to the impact on global economies from the coronavirus (covid-19) pandemic. Many industries are facing questions pertaining to uncertainty, customer and employee engagement, revenue and expectations in the 'new normal' world. This study aims to identify how technology can improve customer engagement within industries in the 'new normal' world. A systematic literature review is carried out via a well-planned literature search. Results have identified: The dominant technologies used to improve customer engagement within industry, challenges, and effects on employees. New and evolving technological advancements, like robotic solutions, artificial intelligence, virtual reality and wearable technologies in industries require appropriate utilisation to enhance customer engagement and improve customer experiences within the 'new normal'.

Keywords: Technology, Industry, Covid-19, Customer engagement

Introduction

The rapid change resulting from the coronavirus (covid-19) pandemic has affected global societies socially, economically, and politically (Somani, 2020). Global industries thriving before the pandemic have incurred great losses, due to the impact on global economies. The deadly virus obligated the World Health Organization (WHO) to announce a Public Health Emergency for public safety on the January 30th 2020 (WHO, 2020). Hence global governing bodies decided to implement safety measures in the interest of protecting public health. Lockdown was announced, self-isolation and social distancing measures were implemented (Somani, Lockdown Impacts, 2021). Governing bodies also applied mandatory use of personal protective equipment like masks and gloves, good hand hygiene and good respiratory etiquette. This resulted from lessons learnt during historical events like the 1918 flu pandemic. Although these measures have helped to limit the spread of the communicable virus, many businesses have suffered and ceased operating in conventional methods involving face-to-face interaction, which has affected communication methodologies (Somani, EFFECT OF THE COVID-19 PANDEMIC ON COMMUNICATION, 2020). In turn this has had a significant impact on businesses internationally (McGuire, Germain, & Reynolds, 2021). There has been a period of major adjustment for global societies as they dealt with disruptions in daily routines. Businesses have ceased operating from designated locations and transitioned to virtual platforms, reluctantly allowing staff to work from home, as industries devised novel strategies to provide services to their customers. This has impinged on many individuals facing periods of physical isolation for long durations away from colleagues, friends, and family with an opportunity to re-evaluate their routines and how they live (Cotton, et al., 2020).

The word 'normal' can be defined as "conforming to a type, standard, or regular pattern: characterized by that which is considered usual, typical, or routine" (Dictionary, 1999). However, the connotations attached to the word 'normal' is continually changing resulting from evolving government guidelines and the revelation of new information during the covid-19 pandemic, thus, constantly altering societal behaviors and perspectives. Industries have been aiming to identify and implement new approaches to stabilize and increase revenue. A vital component of this is to increase customer engagement, which can be defined as "voluntary interactions and resource contributions to a firm's representations that go beyond what is fundamental to transactions" (Jaakkola & Alexander, 2014). Customer engagement behaviour is shaped through the person's personality and context (Alexander, Jaakkola, & Hollebeek, 2018). Many industries are facing questions pertaining to uncertainty, customer and employee engagement, how to increase revenue and expectations in the 'new normal' world.

Objectives

This study aims to identify how technology can improve customer engagement within industries in the 'new normal' world.

Methodology

A systematic literature review is carried out in this study via a well-planned literature search. The following electronic databases are searched: Google scholar, Lexis Nexis, Gateway, Blackwell Synergy. Existing published and grey literature sources are extracted from, analysed, evaluated, and interpreted using the following key words; 'Industry', 'Customer', 'Engagement', 'Covid-19', 'Technology' 'Economy'. Through this search multiple literary works are identified thus, the following exclusion criteria is created:

- Literature relating to technological use in industry and customer engagement only before the covid-19, without customer engagement are omitted
- Papers in languages other than English are excluded
- Papers providing insufficient information within their approach are not used
- Papers reflecting on customer only before the pandemic are ignored

A total of twenty-one literature sources have been identified. Upon further analysis two literature sources are duplicated and omitted. After reading the abstracts and introductions one paper is disregarded, leaving eighteen literary sources for further investigation. Upon completion of full literature analysis, one has a lack of implementation details hence excluded from the study. Therefore, in this study a total of seventeen literary sources meets the overall criteria and are used.

Results and Discussion

The covid-19 pandemic has created havoc within industries, as many businesses have experienced closures, and employee redundancies. The government lockdown restrictions caused a rapid transition of industries and non-essential businesses to develop online methods of engaging customers. Results have identified the dominant technology used to improve customer engagement within industry, the challenges of technology within industry, and how employees within industries.

Technology within industry

The covid-19 pandemic has impinged upon business strategies changing the methods through which customer engagement occurs. The internal operations and supply chain interactions have been accelerated by three to four years, while there has been a sever year acceleration in digital products (Company, 2020). To meet new demands, temporary solutions have become longitudinal. Most industries have accepted change resulting from the pandemic and created pathways for enhancing technological solutions, allowing modification of processes facilitating the enhancement of customer engagement. There are three components of engagement involved within the customer engagement process including: cognitive, behavioural, and emotional. Prior to the pandemic, this occurred via a face-to-face medium, however during the pandemic the use of technology has become the primary mode of communication. As the nature of engagement is changing many industries are striving to become more knowledgeable, tech savvy and responsible. Most industries recognise technology as a vital component in the progression of business and a source of strategic importance. Advanced technologies have been utilised as a means of experimentation, speed, and innovation. Particularly as approximately 80% of interaction with customers in through a digital medium, which is three times more than prior to the pandemic (Company, 2020). Cloud migration and remote working are the two most cost-effective methods of customer engagement.

There has been an increase in data security investments for protection against fraud and artificial intelligence. They have aided industries to obtain a better position to help the changing needs of their customers than pre-pandemic. Technology is currently being used to hire employees, updating infrastructures, and rolling out new products, all of which were conducted via face-to-face interactions pre-pandemic. This needs modern data platforms that relate to customers ensuring personalisation leading to effective engagement. It can be achieved through interactive video conferencing platforms, through which verbal and non-verbal communication can occur aiming to replicate communication pre-pandemic. This is a powerful tool, as eye contact has been proven to create stronger relationships. Blockchain and digital ledger technology is also being utilised, digital applications can be downloaded, and models of artificial intelligence implemented. During the period of economic recovery post-pandemic, the internet will provide a platform for further customer engagement ensuring customer safety and through which consumers can address concerns. It has been proven that the overall customer experience is enhanced through offering multi-channel or omni-channel experiences where personal interaction takes place (Bolton, et al., 2018). However, multi-channel service provides customers with bespoke experience where they are provided attention to feel valued, opposed to multi-channel support.

Another way technology is used within industry is real-time messages, where employees provide answers to questions almost instantly, providing professional personal interaction. Alternatively, when employees are unavailable 'bots' can be used to engage customers allowing an improved method of self-service engaging customers. This method is cost effective for industries, allowing repeatable communicators, creating a platform to build better customer engagement, and improving workforce effectiveness. To understand customers, data management analytics enables industries to analyse customer data and understand preferences. Through this marketing can be targeted to promote consumer interests. The improvement of efficiency through marketing automation will also minimise future costs.

Challenges

Many changes within industries include the requirement to be cost-effective and meet customer needs through effective engagement. Duration of the pandemic has a direct effect on the way in which temporary changes are consolidated into a permanent 'new normal' way of using technology in industry. The duration of the pandemic has created a culture of remote working that is likely to continue in a 'new normal' world. Thus, it is important that secure internet connections are maintained within homes, allowing work to progress online. Simultaneously the need for appropriate hardware and software is imperative for industrial success. As self-service is becoming part of the 'new normal' world particularly due to the shift onto virtual platforms, critical thinking is a skill being utilised more, which some customers may find difficult. Therefore, it is important for industries to make instructions accessible on the internet and popular search engines to provide knowledge-based learning. Customer experiences entailing negative and positive aspects can be communicated in masses through technology, this can impact industries substantially with direct consequences (Javornik, Filieri, & Gumann, 2020). There are constantly efforts made to improve customer experiences within industries, particularly as customer expectations are higher than previous years (Dwivedi, et al., 2021). There is a requirement for industries to use technology to personalise communications whilst protecting personal information.

Employees

New initiatives have been implemented within businesses as more employees are conditioned to work from home. Office spaces are left vacant thus saving costs, which constitute to further industrial investments in advanced digitalisation. Prior to the pandemic, many industries were reluctant to embrace change related to technology, as employees would be available to engage in tasks leading to completion during working hours. However, the pandemic and social distancing regulations have promoted the use of machinery and artificial intelligence to carry out tasks initially attributed to humans. Employees have been required to develop new skills to carry on working in their respective fields. If engaging in dialogue with customers, they require training to provide personalised interaction.

The number of social media users have increased from 2.95 billion people in 2019 to an estimated 3.43 billion people in 2023(Statistica, 2021). As a result, many industries have utilised social media platforms to engage customers and empowering them to leave recommendations and personal experiences for others reflect upon. This has enabled industries to attain marketing objectives with minimised financial obligations (Ajina, 2019). For example, there are approximately over fifty million registered businesses on Facebook, while Twitter is used for over 88% of businesses for marketing (Lister, 2021), and creating public service and promoting political awareness (Grover, Kar, Dwivedi, & Janssen, 2019). This can have positive and negative connotations; however, the use of technology has created an avenue for employment positions. Through technology many industrial processes have been simplified where transactions and search processes have become more efficient and employees have been able to continue working from remote locations using technology.

Conclusion

During the covid-19 pandemic most industries have placed an emphasis on technology to navigate customer experiences and engage customers. They have also accelerated initiatives to support agility of the overall business and the process of automation. There have been many challenges that have been faced to sustain industries during the pandemic including technological literacy, re-skilling employees, internet connectivity, hardware and software availability for employees and customers, whilst trying to overcome physical and mental health arising from the pandemic. With new and evolving technological advancements, like robotic solutions, artificial intelligence, virtual reality and wearable technologies, industries need to learn how they can be incorporated to enhance customer engagement and improve customer experiences even further than current advancements. This will maximise value creation opportunities, facilitating better customer engagement within the 'new normal'.

It is likely that there will be a combination of on-line and off-line interaction with customers as the world seeks to re-learn what the 'new normal' is, hence appropriate action must be taken to allow efficient customer engagement from any technological devise. This can be carried out through an appropriate omnichannel approach taking into consideration contexts, cultures, and cognitive abilities. A greater interdisciplinary awareness needs to be created to harness technological advancements through which customer engagement can flourish and aid towards societal progressing. By working together, positive change can be achieved in industry through the appropriate utilisation of technological advancements in the 'new normal' world.

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