LEVERAGING ON ARTIFICIAL INTELLIGENCE POST THE COVID-19 PANDEMIC IN SELECTED HOTELS IN HARARE METROPOLITAN PROVINCE: PROSPECTS AND CHALLENGES

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Abstract

The Covid-19 induced lockdown has had adverse effects on all businesses including the hotel industry. Consequently, most employees got retrenched, as hotels had to scale down their operations by closing some of their outlets, in order to combat its spread. In view of such a scenario, hotels could leverage on artificial intelligence (AI) in order to minimise human contact. The study adopted a purely qualitative approach using the phenomenological design. Ten managerial employees were purposively selected from three (3) different hotel groups. Due to travelling restrictions, data had to be collected using online interviews. Thematic analysis was used to analyse the data. It was established that under this new normal, AI could be leveraged on to enhance business operations. Some of the benefits to be harnessed from AI included enhanced cognitive support in decision making, reduction in operational costs, automation of repetitive low value addition tasks, and quality people analytics. Although AI threatens some jobs, the study found out that it has the potential to create new jobs requiring new skills. Since AI has the potential to produce more benefits, there is need for employee involvement and transparency in its implementation. It is also recommended that hotel management prepare their employees for the new normal through socialisation and capacity building programs to ensure that all stakeholders would benefit from AI.

Keywords: *Artificial intelligence, hotel industry, Covid- 19.*

Introduction

The Covid-19 pandemic started in December 2019 in Wuhan China. On 20 March 2020, the world health Organisation (WHO) declared it a global pandemic (WHO, 2020). Nations are ceased in their fight against this deadly pandemic and Zimbabwe has not been left out. As part of its measures to control the pandemic, the Zimbabwean government has put in place measures to control the spread of the virus which included several lockdowns since 30 March ,2020. Statutory instruments SI 83 of 2020 and SI 42 of 2021 and other related statutory provisions that prohibited public gatherings were enacted to reinforce the lockdowns. Most businesses except those classified under essential services were closed.

According to the ILO (2020), the Covid -19 pandemic has had devastating effects globally particularly on the hours of work and salaries. The pandemic is expected to lead to more job losses across the world (ILO,2020). An estimate of about 7% of hours of work were lost globally between June and August 2020. This means approximately 200 million full time workers are going to be affected leading to massive unemployment globally (ILO, 2020). In the Arab States the pandemic is expected to wipe out 8.1% of working hours which means about five million full time employees are going to be affected in terms of their employment (ILO, 2020). In Europe, the Covid-19 pandemic is expected to wipe out approximately eight percent of working hours which means about twelve million full time workers are going to have their jobs affected. The effects of this pandemic are far beyond those that were experienced between the 2008-9 global recession (ILO, 2020). According to Pandey, (2020), the hotel industry is among the high-risk sectors that were mostly affected by this pandemic. A global survey that was conducted by ILO, (2020) revealed that more than 80% of employees are suffering the effects of this pandemic either through partial or full closures of the workplace. Globally the pandemic has left employees jobless particularly those in the tourism and hotel industry (Ryder,2020).

According to ILO, (2020), the effects of World War ll were far much better compared to those of the Covid-19 pandemic. The pandemic is the worst global challenge ever experienced this century. The same study has also revealed that more than one billion employees are employed in 'high risk' sectors where wages and hours of work are being reduced and retrenchments are the order of the day (ILO,2020). In Africa the effects of the pandemic are especially catastrophic since many people are self-employed under the informal sector and because most governments are struggling economically, there are limited to no social nets to cushion the affected population (ILO,2020). People in such countries are likely to break the lockdown rules in search for money to earn a living (Makamba,2020).

In Zimbabwe, Covid-19 has equally affected industry with other businesses closing and others scaling down operations (Makamba, 2017). The most affected being the transport and tourism industries since movements across boarders have been restricted. Those involved in passengers transport have laid off 80% of their workforce since they have either stopped or scaled down operations in line with the changing lockdown measures (Makamba, 2020). At the time of writing, almost all hotels in Zimbabwe are closed and this has seen most hotels putting their employees on fifty percent (50%) salary and employees are reporting for duty only and when their services are required (Makamba ,2020). Seventy five percent of these employees are on precarious employment and on the verge of being retrenched given perpetuated lockdowns in Zimbabwe and other countries around the globe (Mupende,2020). The logic being that businesses cannot continue incurring costs especially in the form of salaries and wages when they are not generating anything (Makamba, 2020). According to a research conducted by Ncube (2017), labour is the major cost centre in any business. Given the prevailing economic challenges there is need for organisations to ensure that this cost is controlled particularly post Covid -19 when businesses will be resuscitating themselves. Digitalisation of HR function is the emerging theme where automation is becoming the order of the day (Pandey, 2020). Automation eliminates the need for human participation and effort in most cases and it reduces errors and wastages hence operational effectives (Khaskel,

2019). Businesses are likely to move towards AI where some of the tasks are going to be done by machines and sometimes having employees working together with machines to enhance their effectiveness through enhanced knowledge and speed (Oracle,2018).

AI is an aspect of computer science where machines are designed in such a way that they operate like humans (IBM, 2018). The coming up of AI could eliminate redundant functions, encourage creativity amongst employees and reduce manual work. This has the added advantage of reducing inconsistencies and errors in the execution of business functions. Starfleet (2018) conducted a survey on the adoption of AI in the travel and tourism sector and their findings revealed that one hotel in China has managed to fully adopt-AI and is enjoying the benefits. Russell, (2019) has conducted a survey on AI and how it will transform the tourism industry in terms of managing waste. The findings revealed that AI is very useful in reducing waste disposed by hotel kitchens. Lu (2019), has conducted a research in China on AI and its impact on customer service and the findings indicated that AI will go a long way in enhancing customer satisfaction. However, there is a gap in literature on AI in the context of covid-19 which this study seeks to fill.

The current study is guided by the following objectives:

1. To examine areas within the hotel business where AI can be used
2. To determine how AI will facilitate business operations in hotels post covid-19.
3. To explore the challenges that are likely to be involved in implementing AI in hotels

Statement of the Problem

The temporary suspension of operations has negatively affected their financial status. For a period of three consecutive months in 2020, three hotels in the Harare Metropolitan Province lost revenue of US$2,3million and their profit margin dropped by 16% (Hotel Industry Pulse Report, 2020).This has seen hotels considering staff rationalization and the most affected were those employees on precarious employment (E.Y Survey, 2020). Most contracts were not renewed and this was justified by the suspension of full-scale operations by the hotels (Hotel Industry Pulse report, 2020

Labour cost is the major cost driver in the hotel business therefore there is need to ensure its maximum utilization through investing in technology. In every human resource management process, organisations incur labour costs which erode overall profits and these costs include costs of hiring employees, lawsuits for wrongful terminations, overtime, costs of regular work and even re-hiring costs (Manjunatha,2013). Adopting artificial intelligence could help organisations optimise the performance of their human resource since humans are a resource that make use of other organizational resources (Tanveer, 2010).

Literature review

Since the cost of doing business is increasing, organisations are moving towards being mean and lean as a survival strategy (Manjunatha, 2013). Saving resources and time has become the norm and because of that, organisations are moving towards AI where they are reducing on their headcount as a way to reduce their wage bill (Ncube,2017). According to Pandey and Khaskel (2018), there are so many reasons why the HR function should adopt AI which include data driven decision making, employee engagement and intelligent automation. This has the potential to reduce inconsistencies and errors in the HR function.

Furthermore, digitally-enabled applications and services are essential in the fight against the spread of the virus, in managing uncertainty, and ensuring the continuity of business by governments and private sector organisations amidst social distancing requirements (Africa's Pulse 2021). Zero-touch options for most business operations means that players in a business relationship have to adapt to getting work done through digitally-enabled mechanisms. An HR function such as labour scheduling requires artificial intelligence solution where demand forecasting (forecasting analytics) are done by the machine and the experience of the responsible manager is key for the success of the process (Atalia,2018).A programmed machine can accurately predict the approximate number of people who will visit the hotel on a given day of the week (check-ins) and this will provide management with appropriate labour schedules with the right number of front office workers, waiters and waitresses who will meet the demand for that given time (Makoni,2018). This is important since either overstaffing or understaffing is not good for

business (Makamba, 2012). Having more labour than required at a given time escalates the costs of operations and having fewer employees might cost the business through poor service provision.

Madakwenda (2013) postulates that it is vital to use AIs as a way to increase revenue and reduce costs through creating a balance between demand and the available labour. The advantage of machines is that whenever there is a change in the operating conditions, management quickly receive an alert and accurate labour schedules are produced on time and these assist management to alter recommendations where necessary (Makoni,2018). Artificial intelligence also aids in the recruitment and selection of employees. It leads to the selection of best candidates as it enables the creation of a wider pool of candidates. It also ensures optimum utilisation of labour since it tracks and monitors performance of each employee giving management a picture about how employees are performing against the key performance indicators (Chaudhary, 2016).

Organisations can take advantage of AI in various functions of HRM which are talent acquisition, Human Capital Management, employee engagement and learning and development (Datin,2019). On talent acquisitions', organisation can take advantage of artificial intelligence to source, shortlist and screen for the talent they need in their organisations. This can bring efficiency to the HR function as it saves time and costs at the same time (Watson,2019) Interviews, on boarding and induction processes can also be done using AI (Capelli,2018). As for Human Capital management, artificial intelligence can be used for planning for present and future HR requirements. This can eliminate errors and blunders that can affect attainment of the overall business strategy (Saklan, 2019). HR virtual assistance for self-service can be made possible and instead of having employees congesting the HR office for assistance they can actually assist themselves on issues to do with leave days update for example or any other issues they might need information on (Anon,2019). In employee engagement, AI can go a long way in ensuring employees identify themselves with the organisation. AI can provide employees with live feedback programs which keep employees abreast with developments in the organisation (Watson,2019). Moeover, rewards and recognition programs can be conducted timeously with consistency which helps improve employee engagement (Pfeffer,2019). Training and

development programs can even be conducted online with employees attending such programs in their offices and homes as long as they have connectivity (Cappelli,2018).

The application of AI in hotels has become common in Europe where from the third that has managed to, 72% of them are already getting benefits which include high service quality for customers, effective handling of high volume and repetitive tasks as well as continuous customer care (Devonteam, 2018). The usual roles played by employees will remain in place in some cases but the nature of responsibilities and accountability areas will change. Lin Lu (2020) revealed that 70% of requests by guests were now being taken care of by machines. This makes a strong business case for hotels since it leads to time savings, reduction in costs and enhanced guest relationship. AI could also assist in the following areas:

Enhancing the stay of Guests

AI technologies can be used to assist guest during their stay in hotels (Lu, 2019). Digital platforms can get and give information to guests about what they need to make their stay comfortable (Weidenfield,2019). Through the use of voice commands, music, room temperature, room TV can be controlled by the guest on their own without asking for assistance from employees. The digital room assistance tends to improve with time as it continuously learns more about the needs of the guests enriching its knowledge base (Abu Shawar, 2019).

Meeting customer expectations

We are living in a fast world where customers (especially millennials) expect to receive services at the shortest possible time without delays (Devoteam, 2018). Any delays in service delivery will affect their satisfaction,yet customer satisfaction is key as it leads to repeat purchases (Davis, 2019).Bookings, reservations, room service, check in and check out could be accomplished easily even via mobile up (Routledge,2019). Contactless payments compatible with physical distancing even in the context of Covid-19 are made possible by implementing AI.

Individualised services

AI can be applied in tailor making personalised services for guests which will inturn give businesses competitive advantage over competitors (Bradesko,2012). Machines learn individuals' needs as they transact with them over time and with time, they will end up providing personalised services (Cheng,2017). Businesses will be able to provide their customers with what they really need in a service or product leading to customer satisfaction (Cook, 2012). Satisfied customers usually spread a positive word of mouth to other potential customers and that is good for any business.

However**,** like any other system AIs have their own challenges (Chipunza, 2017). Some of the challenges include the difficulties encountered in determining HR metrics. HR components are not very easy to measure and even determine their contribution to the overall business bottom line. As noted by Buzko (2016), it takes employees who are efficient and effective in their performance for an organisation to be successful but the challenge is how do to determine an 'efficient' or 'effective' employee using AI. Furthermore, since most jobs in organisations are linked to each other, it is very difficult to separate individual performance from group or team performance (Armstrong, 2012). Furthermore, implementing AI may lead to serious ethical issues. Generally, machines are prone to hacking such that an organization's information or even individual information can be accessed by people who are not supposed to access it either within or outside the organisation (Makoni, 2017). Furthermore, it is difficult for employees to accept new systems. They usually do everything possible to discourage management and show them that it does not work (Chipunza, 2017). Such employees' reactions are detrimental to the overall organizational outcomes.

Theoretical framework

The Unified Theory of Acceptance and Use of Technology (UTAUT) model developed by Venkatesh et al in 2003 guided the current study. Fig 1 below shows the UTAUT model.

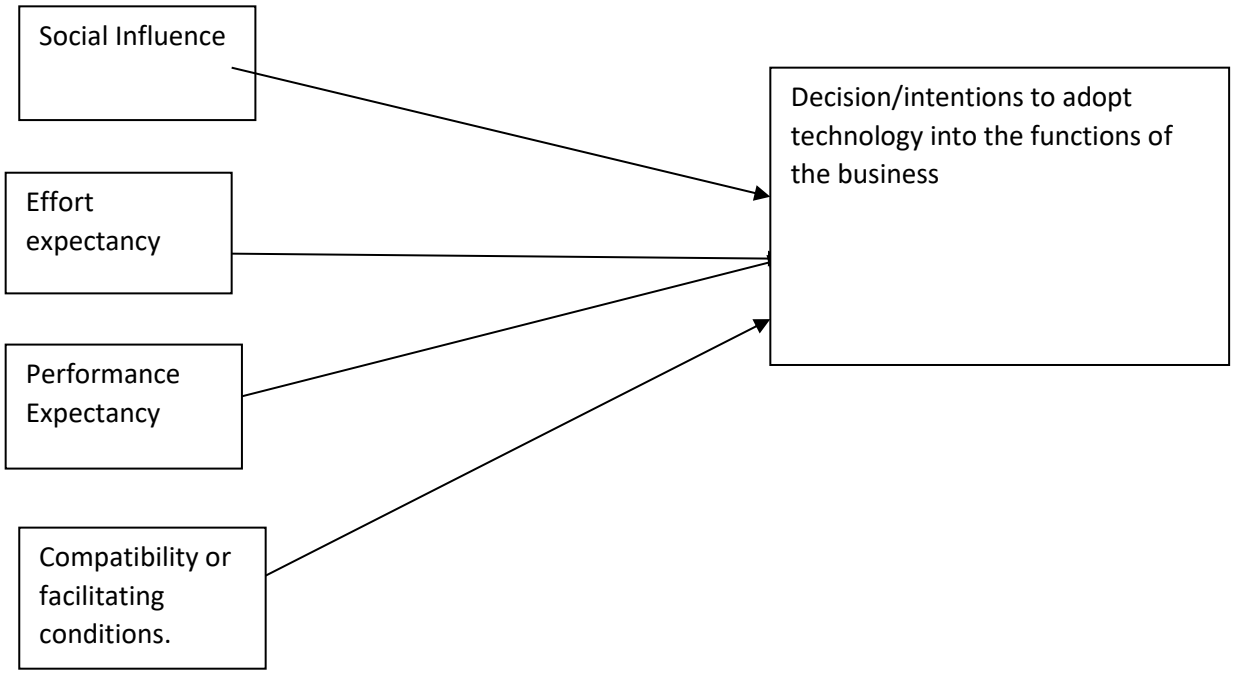

Fig 1, Source: Venkatesh et al (2013)

The model is made up of four key aspects which are social influence, effort expectancy, performance expectancy and facilitating conditions. Venkatesh et.al. (2003) posits that performance expectancy is whereby the user of a system appreciates its usefulness and how it enhances his or her performance including the work quality. Individuals usually trust their beliefs and these beliefs have an effect on their attitude towards a system in place (Davis et al, 1989). Venkatesh et.al, (2003) postulates that effort expectancy is the

extent to which how one finds a certain system user friendly. This can be referred to as perceived ease of use where individuals have a belief that using a certain system will be effort free (Davis et al.1989). People are more willing to use an application they feel is much easier and friendly to use compared to others and whose benefits outweigh its disadvantages. Social influence is the extent to which an individual is influenced by important people in his or her social environment to use a system (Venkatesh et al, 2003). The aforementioned three aspects are the direct determinants of usage intention and behavior, while the fourth aspect is a determinant of user behavior. One one hand, facilitating conditions were conceptualised as the extent to which technical and organizational resources in place support the use of the system (Venkatesh et al, 2003).On the other hand, compatibility is the extent to which technology introduced is in tandem with the values, past experiences and needs of potential users (Rodgers,1995).However , the four key aspects on usage intention and behavior were said to be moderated by such variables as gender, experience, age, and voluntariness of use.

Applied research regarding the UTAUT model has been extensive. The model provides a framework that explains acceptance of information technology and information systems and explains the actual use of such systems and technologies. The UTAUT model contributes to the investigation of technology acceptance and usage (Venkatesh et al., 2003). In view of this, the current study adopted the UTAUT model as the theoretical basis to assess the influences of technology-related factors on the adoption of AI.

Research approach

The study adopted a qualitative research approach which is premised on the notion that human beings develop subjective meanings to their own experiences. According to Burchell (2013) qualitative research method is for exploring and appreciating interpretations individuals or groups attach to social problems. The approach was selected because it streamlines and manages outcomes without destroying complexity and context. The approach helped in yielding rich and thorough narratives of participants' perceptions, feelings and experiences about AI in hotel businesses (Kelly, 2010).

Research design

The study which was purely qualitative adopted a phenomenological design. Phenomenology believes that the relation between objects and perception is not passive, meaning to say that human consciousness actively creates the world as well as perceiving it (Gray, 2014). Thus, phenomenology seeks to appreciate the world from the participant's perspective, and this can only be realized if the scholar 'brackets out' their own preconceptions (Gray, 2014).

Sampling and Sample Size

A sample of 10 managerial employees was randomly drawn from a population of 30 managerial employees from three hotels in the Harare Metropolitan Province. These hotels were selected on the basis that they already have some rooms that use AI (known as Alexa rooms) making them a fertile ground for the study. The other reason was that of easy of data collections since the researchers had opportunity to interact with the managers in other business forums. The current study adopted purposive sampling which requires smaller samples. As postulated by Wilson et al (2008), purposive sampling enables researchers to select samples based on what they consider to be representative or typical cases of a certain phenomenon or group which is capable of providing the data required. The sample was selected to include managerial employees only. Accessibility constraints due to the Covid-19 induced restrictions made it more convenient to limit participation to managerial employees whom the researchers could access via other social media platforms. Online interviews were conducted with participants in order to ensure social and physical distancing.

Research Instruments and Data Collection

Semi-structured online interviews were used to collect data on the utility of AIs in hotels post the Covid-19 pandemic. Online interviews ensured social and physical distancing. As observed by Burchell (2013), interviews are more appropriate where knowledgeable respondents are required, as in the current study. With semi-structured interviews the

researchers had to use a schedule developed around a list of issues central to the research questions. The order of questioning allowed for greater flexibility when compared to structured interviews. Researchers had to be patient with respondents since some of them took considerable time to respond as most of them were working from home where internet connectivity was a challenge.

Data Analysis

Thematic data analysis was used for the current study. The researchers examined the data closely to identify common themes – ideas, topics and patterns of meaning that emerge repeatedly. Opinions, beliefs and views from the online interviews were coded and analysed according to themes that emerged (Yin, 2010).

Ethical Considerations

The researchers required that consent be obtained from participants, and the interview guide's cover page contained a provision for respondents to withdraw at any time. Respondents were informed of the purposes the information would be used for and the authority the researchers had to collect information which was a letter from the Ethics Committee of the Great Zimbabwe University School of Social Sciences, Zimbabwe. Furthermore, respondents were ensured that their responses were to be confidential as data had to be stored in such a way as to preclude any unauthorized access.

Research findings

The major issues and findings emanating from the research are presented below. Managerial employee was referred by pseudonyms M1, M_2 and so on to maintain their anonymity

How AI Can Be Used in Hotels?

Five out of 10 respondents highlighted that artificial intelligence can be useful as it can do much of the front desk duties which include bookings, reservations and responding to guest questions in the shortest possible time. Three out of 10 respondents indicated that AI is useful in ensuring both internal and external stakeholders get the service they need and expect at the right place and at the right time from the time they book, during their stay up until they check out of the hotel. Managerial employee 1 ($M_{1)}$ had this to say,

> "AI intelligence has the potential to enhance service quality for hotels especially if implemented at a full scale. Both employees and customers will benefit from it in different ways. For instance, employees can get their work done effectively and efficiently as AI augments the human effort"

The above response shows how beneficial AI could be to both employees and customers.

Handling of Human Resource Functions

Two of 10 managers indicated that AI can be very useful in managing the human resource function and in controlling costs. M_8 who happened to be an HR manager had this to say,

> "Artificial intelligence can be used in recruitment and selection, performance management, training and development and reward management. It eliminates direct contact between people and promotes physical and social distancing given the dangers posed by Covid-19. It can also enhance performance through robot surveillance.".

> Another HR manager M_9 had this to say, “AI implemented by way of human resource information systems reduces the burden of work on HR practitioners since employees can access their personal information without necessarily visiting the HR office. It makes management of all HR issues handy”.

Handling of repetitive tasks

All the managers agreed that AI could be useful in handling repetitive tasks such as laundry and saving food. M_9 who manages hotel operations had this say, *“AI will go a long way in handling repetitive tasks such as laundry. Machines can be programmed to do the washing and drying even after hours when employees have gone home”.*

AI could therefore assist hotels deliver services efficiently.

Prospects of AI Post Covid-19

Findings revealed that artificial intelligence will indeed facilitate business continuity post covid-19. All the respondents concurred that artificial intelligence could lead to increased productivity, efficiency and effectiveness. M_3 had this to say, “AI can bring to the hotels self-service e portals, self-check in facility, self-dispensing equipment in terms of teas and even other meals which leads to improved service quality”.

AI could therefore act as a marketing tool that can help hotels increase their market share leading to more profitability. They also highlighted that AI assists in benchmarking local hotel services to those of first-class hotels. M_4 had this to say;

> “Having AI in place post –covid-19 will assist managers compare their service quality with other big renowned hotels globally and that will help in terms of areas where we need to improve and how to improve so that we match or surpass the set standards”.

They also indicated that AIs will assist the hotel business to continue seamlessly even after retrenchments or reduction in headcounts since they can ensure efficient service to guests without any human interaction. M_5 had this to say;

"Availability of more Alexa rooms that makes use of voice commands to assist guests during their stay in the hotel will assist in quality service provision even post Covid -19 retrenchments".

Possible Challenges in The Implementation of AI

Findings from the study revealed that so many challenges could be encountered in trying to implement AI. The challenges have been explored here under:

Financial Investment Required

Respondents highlighted that the hotel business was experiencing a lot of financial stress due to Covid-19 induced restrictions in movement. They indicated that implementation of AI requires huge capital investment, which can be sustained by a stable. M_1 had this to say; "AI is very beneficial especially in hotel business post Covid-19 but the challenge is with the financial investment required. This is beyond the reach of many hotels given that business has been low for some time now."

Cost of retraining Employees

Managers also highlighted the prohibitive cost of retraining employees. M_8 said "*AI is something new and we are not well versed in it, there is need to train our employees on how it operates and how we could benefit from it as well".*

All the respondents indicated the challenge involved in eliminating human labour since any form of AI requires human support. The managers indicated that machines need the support of humans and sometimes this even demands new employee's skills sets. M_1 had this to say; "Implementing AI threatens the jobs of employees to some extent but in some instances, it even opens up new opportunities for employees. New posts can be founded".

Employees Resisting Change

Five out of 10 respondents highlighted resistance to change and the negative attitude by employees and their Unions as one of the obvious challenges. M_9 reiterated that, "Change is not something that employee Unions or any human being easily accepts,

therefore in implementing AI resistance is the likely challenge we face as hotel management." Managers indicated that since AI leads to dehumanising work places and deskilling employees, resistance is more than likely

Cost involved in the laying off of employees

Two out of 10 managers indicated the cost involved in laying off some employees as a challenge. Implementation of AI might mean that trimming of the workforce becomes imperative. M_{10} said;

> "Given the catastrophic effects of the Covid-19 pandemic on the hoteling business to date, retrenchments are a last resort because of the cost involved. The hotels are likely to consider other means of laying off employees that do not cost the already ailing business but if the worse comes to the worst we will be left with no choice but to retrench".

Lack of expertise to manage the new set up

Seven respondents out of 10 indicated the likely challenge of lack of expertise to manage the new set up, where human beings work together with machines. They highlighted that they were used to manage employees using their key result areas. Implementing AI might pose some challenges to them. M_8 said; "Measuring employee performance can be difficult since they will be working together with machines. The two will be augmenting each other, therefore, separating the effort of the two can be very difficult".

Prohibitive Cost of Data Bundles and Privacy.

All the managers indicated the challenge of expensive data bundles and privacy concerns. One of the respondents, M_1 said;

> "AI requires large volumes of big data and connectivity which we cannot sustain due to the cost involved". He further highlighted that,

"Privacy of information can be compromised since accounts can be hacked by other employees within the same organisation or by outsiders."

Discussion of findings

This section will discuss the major findings of this study.

How AI Can Be Used in Hotels?

Managers revealed that AI could be very useful in the hotel business. It can assist through handling repetitive tasks of the business which include those handled by the front office desk such as bookings, reservations and responding to guests. This concurs with the findings of the study conducted by E.Y(2019) that revealed that business can use AI to help deliver front desk services efficiently. A related study by Lu (2019) revealed that millennials who have dominated the population that visit hotels value efficiency, self-service and autonomy that can be achieved by way of AI. The same study highlighted that those guests want to be in charge of their room service through mobile applications. Therefore, if hotels manage to implement AIs, they could be able to satisfy their various customers by offering them tailor made services. This concurs with another study by Bradesko, (2012) which highlighted that AI was useful in providing customers with personalised services.

M_8 concurred with his other counterparts when he admitted that AI can be used in recruitment and selection, performance management, training and development and reward management. This can be managed through the human resource information systems. This concurs with a study conducted by Watson, (2019) which revealed that AI was very useful in executing the HR functions. The study highlighted the issue of cutting costs as well as saving on time, thus bringing efficiency and effectiveness in the HR function. This means that all HR functions could be conducted online without necessarily having people to congest offices (Capelli, 2018).

Prospects of AI Post Covid-19

All the respondents concurred that artificial intelligence could lead to increased productivity, efficiency and effectiveness. M_3 reiterated that AI can enable self-service e-portals, self-check in facility, self-dispensing equipment for teas and other meals. This translates to improved service quality. If most hotels could implement AI post the Covid-19 pandemic, productivity is likely to improve. According to Devotea, (2018) implementing AI leads to increased productivity since the two (machines and human beings) can work together each contributing on what they know best. Moreover, since the cost of labour is high (Chipunza, 2018), implementing AI would enhance efficiency by way cutting of costs. Some employees will be replaced by machines, thus reducing head count and the wage bill. This concurs with a study by Madakwenda, (2013) which revealed that implementing AI in a business would increase profits in the long run.

Having machines and humans working together increases employees' knowledge base and enables creativity. This concurs with a study by Devoteam, (2018) which revealed that implementing AI will help employees become more creative and innovative. Madakwenda, (2013) admits that creative employees can redeem organisations from their everyday challenges thereby contributing towards sustainable growth and success.

Possible challenges in the implementation of AI

There are some challenges that are likely to be involved when trying to implement AI post the Covid-19 pandemic. Respondents highlighted that the hotel businesses were in dire financial stress due to Covid-19 induced restrictions in movement. They indicated that robust implementation of AI requires huge capital investment (Bradesko,2019), which is feasible under stable business environments. Purchasing and installing technologies that support AI at present can be a daunting task for hotels**.**

There are other cost related challenges that are likely to be faced in implementing AI. The cost associated with retraining employees and costs of laying off or retrenching employees. According to Aliu, (2019) implementation of AI is often accompanied by laying

off of employees who would need retrenchment packages in turn. However, Makamba, (2017) found out that human labour is necessary even where AI is in place as the two support each other in decision making. Another study by Lu, (2019) in the Chinese hotel industry also revealed that the although the implementation of AI threatens jobs, AI can even create new jobs that may require employees to re skill and up skill.

Seventy percent of the respondents indicated the likely challenge of lack of expertise to manage a set up where human beings work together with machines. As posited by Liu (2019), whenever new technology is introduced, it is important for management to prioritise the training and retraining of employees so as to benefit fully from its introduction. This concurs with a study conducted by E.Y, (2020) on the benefits of AI which revealed that training is essential since it helps employees to understand and embrace the new technology fully for the benefit of the organisation. The same study by E.Y, (2020) revealed that training gives employees a platform to ask question about the new technology and it is the understanding they get from such trainings that eliminates resistance. Liu, (2019) posits that when employees understand the benefits of new technology to their work, organisation and career at large they tend to cooperate. Such cooperation leads to organisational citizenship behaviours that are crucial to the success of organisations. According to the UTAUT model by Venkatesh, (2003) the decision to adopt technology as an individual or organisation is affected by four factors which are effort expectancy, performance expectancy, social influence and compatibility. If the organisation is satisfied with the performance and benefits that technology brings to them, they easily embrace and work with it (Venkatesh, 2003).

The findings of this study also highlighted the likely challenges of the prohibitive cost of data bundles and privacy. Bradesko, (2019) posits that implementation of AI can be a challenge where there is limited data since it requires huge volumes of data. There is also the challenge of privacy which was highlighted by managers. Mullins, (2016) postulates that passwords are very useful in protecting private information but there are instances when these accounts can be hacked by insiders or outsiders who have software that bypasses password. This means hotel management should map a way forward on the issue of data security to close every possible gap (White, 2008)

5.4 Recommendations

From the findings above the study suggest the following recommendations:

1. There is need for employee involvement and transparency in the implementation of AI so that the employees get to understand and embrace it
2. There is need for socialization and capacity building programs to ensure that employees, management and even customers understand the importance of AI in the context of Covid -19. On line workshops and seminars on AI will go a long way in socializing stakeholders in the new normal. This also helps in reducing resistance of AI from all stakeholders
3. Hotel management should provide the necessary support to employees so that they up skill. This would help them to quickly settle and become productive in their new roles that AI can open for them.
4. Data security measures should be seriously considered to avoid leaking of important private individuals or business information.

5.5 Limitations and Suggestions for future Research

An obvious limitation of the study is that it was conducted in three hotels only although it has strength in that the sample that was used was fairly large. Apart from the suggestion of considering more hotels in Zimbabwe, another future research suggestion may be to consider utility of AI intelligence in the context of economic recession. Furthermore, additional research is required to really measure the applicability the UTAUT model in the Zimbabwean hotel industry in light of the implementation of AI.

5.6 Conclusion

It can be concluded that organisations can take advantage of AI post Covid-19 to ensure business continuity.AI can lead to increased productivity, creativity, efficiency and effectiveness in hotel operations. The study also concluded that AI can be used in a number of hotel business areas and enhance operational efficiency in those areas. Despite the likely challenges that are involved in implementing AI, the study concluded

that in the long run AI has cost cutting effect which can ensure business continuity post the Covid-19 pandemic.

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