ARTIFICIAL INTELLIGENCE: A STUDY OF THE ACCEPTANCE FACTORS OF EMPLOYEES AND MANAGERS

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Abstract - Building on the stream of studies on artificial intelligence at the organizational context, and to support decisional situations faced by businesses regarding this game-changing technology, we seek to conceptually contribute to the emerging literature on using artificial intelligence for organization by an explanatory study of managers' and employee's attitudes and intentions regarding the use of artificial intelligence for the value creation and fulfilling service expectation.

Keywords - Artificial Intelligence, Acceptance Factors

I. INTRODUCTION

The 4.0 industry technologies will deeply transform businesses and both managers and employees need to be prepared, just like what happened with older technologies (electricity, trains and automobiles), even if some economists argue that recent technologies haven't had the impact that the older ones had. Businesses are more likely to adopt new technologies involving Artificial Intelligence since greater deployment of these cost-saving mechanisms could boost economic growth by improving efficiency in the workplace (Jun Li et al; 2019). The introduction of artificial intelligence into the workplace can inadvertently cause psychological damage to employees and their emotional feelings related to a sense of belonging and dedication to the job (Jun Li et al; 2019). In our study, we are much more interested in the employees and managers; we aim to provide a clear understanding of the dynamics that prevail in the intentions of businesses to use artificial intelligence and to contribute to the body of knowledge we elaborate the impact of artificial intelligence on businesses especially – their marketing and human resources, and provide an overview of the empirical findings by developing a framework that integrates and identifies factors that can explain managers and employees responses toward artificial intelligence. We will take into consideration marketing 4.0 that leverages artificial intelligence to improve marketing productivity while leveraging human to human connectivity to strengthen customer engagement (Philip Kotler et al; 2017)

In a world where artificial intelligence and robotics are integrated in people's lives, businesses need to demonstrate human attributes that can attract customers and build human to human connections so that customers will not become more anxious as they search for their identities asking what does it mean to be human in a digital world (Philip Kotler et al; 2017). To do this we will be interested to the digital anthropology by focusing more precisely on the nexus between digital technology and humanity: how humans behave in the context of technologies, which will allow exploring factors that can influence the acceptance or the avoidance of artificial intelligence. To drill down we will be interested in intelligent virtual agents and their roles in the humanization of the business site and the improvement of service by using the web-self service (Catherine viot et al, 2012). We will try in a context where companies' technological advances moves to the next level based on the increasing use of artificial intelligence and where some employees are ready and open to adopt the latest technologies and many others are in contrast reluctant to accept these evolution (Ulrich Lichtenthaler, 2018), to identify factors that explain the paradox of positive and negative among the same employees so that we can reconcile divergent results in extant studies concerning the perception of the risks and opportunities of artificial intelligence (Hirch, 2017 ; winick, 2018), which will allow us to help companies to understand how the employees attitudes are crucial to benefit from the artificial intelligence.

II. THEORETICAL BACKGROUND

2.1 Use of artificial intelligence in marketing : Machine learning and text mining can be applied in sectors like marketing, banking and finance, art, tourism and retail (Pitt et al, 2020), by training machines to collect data according to requirement and handle big data to interpret the environment and act accordingly. AI can help marketers in visioning strategic firm's orientation (Huang and Rust, 2017), for marketers the adoption of artificial intelligence in several marketing process is opening different opportunities (Fogella, 2018). For example AI improves the selling process and boosts the sales (Syma and Sharma, 2018), enables the segmentation different users of social media (Culotta, Kumar and culter, 2015).

2.2 Use of artificial intelligence in innovation management: Artificial intelligence reshapes businesses and innovation management; it may

actually compel management to rethink an organization's whole innovation (Naomi Haefner et al, 2020). Even innovation managers are gradually faced with volatile and challenging environments, competitive markets, challenging technologies (Jones et al.,2016 ; O'Cass and Wetzels, 2018).

2.3 Potential artificial intelligence areas: By bringing together the barriers that must be overcome by artificial intelligence, several areas may be confirmed, in what follows we present an overview of the current competencies of artificial intelligence in supporting employees and managers in different areas by according examples in each context in the Fig1.

Literature Topics	Examples	Authors
Strategy and innovation	Organizational decision-making	Guangming et al, (2021), (Ransbothan et al, (2020), and (Aaldering and song, (2020).
	Human resource strategic planning	Qiong Jia et al, (2018), Turban and Frenzel, (1992), and HRPA, (2017)
Job insecurity	Mass of unemployment due to STARA	Lynch 2015 , Bort, 2014 , Thibodeau, 2014 and Frey and Osborne 2013
	Employee retention and performance	Catherine Prentice et al, 2019 , D'Amato and Herzfeldt, 2008 and Saari &Judge, 2004)
Relationship management	**Customer relationship management**	**Deb and Jain, 2018**

Table 1: Inscription dans les collèges locaux, 2005

Eventually, there are many areas where artificial intelligence can be used whether in the interest of managers or employees.

III. ARTIFICIAL INTELLIGENCE AND BUSINESSES IMPROVEMENT SERVICE

In this section we will focus on the factors that can influence the performance of businesses whether it is on the part of employees or managers so that we can be able to develop our own board.

3-1. Job insecurity, job engagement and businesses improvement in the age of artificial intelligence

According to self determination theory (Deci and Ryan., 1985); self determination is a human functioning quality that merges intrinsic/extrinsic motivations based on one's capacity of choices. The motivations raise either higher or lower levels of behavioral outcomes including satisfaction and engagement, which conduct to organizational effectiveness (Ryan and Deci., 2000). The latest studies have carried the fact that these motivational processes can be influenced by job insecurity, work behavior, job performance, job engagement and so on (Urbanaviciute et al., 2018 , Shin et al., 2019).

Sufficient studies have recognized job engagement as an essential concept for organizations since it is not only a predictor of employees turnover yet a negative consequence of job insecurity (Bonhak koo et al., 2020). In this regard preceding studies tested direct/indirect roles of job engagement in various situations (Lee, 2015 ; Stander and Rothmanm, 2010 ; Schaufeli and Bakke, , 2004 ; May et al., 2004). For example Schaufeli and Bakker, (2004), stressed that job engagement is a key mediator in the relationship between job resources and turnover intention.

Newly businesses are adopting service robots and artificial intelligence to provide a new experience to clients, and all this changes generate employee's insecurity resulting in their turnover intention (Li et al., 2019), that's why chen and wu (2017) suggested that managers must provide their employees with a comfortable environment to work in a proper manner to decrease employees turnover intention. Likewise, Lu and Gursoy (2016) suggested that employers should develop a personalized structure for employees in order to boost their job satisfaction and mitigate their turnover intention.

3-2. Organizational support and firm performance:

Artificial intelligence technologies are one of the resources which are necessary but not sufficient and alone will not be unlikely to deliver competitive gains by their own right (Patrick and Manjul, 2021), leading firms in terms of the adoption of artificial intelligence highlight that organizations require and need a blend of organizational, physical and human resources to deliver a value (davenport et al, 2018; Ransbotham et al, 2018; Chui et al 2018). Artificial intelligence is considered as one of the moderns technologies that generates stress in the work environment and a highly negative job related outcomes (Brougham and Haar., 2017). Organizations must coping with the constantly evolving effects of technology.

A large body of evidence, indicates a considerable reduction in employees psychological tension when they perceived a high level of organizational supports (Arogundade et al, 2015), therefore organizational support can help attenuate and anticipate the negative

outcomes of artificial intelligence application in organizations (Duke et al., 2009), which will have an impact on efficiency, the development of better services and products while establishing greater operational stability.

Authors	Major conclusions	Factors (that managers and employees must concentrate on)	Employees/Managers
Brougham and Haar., 2017	Employee's perception of technological advancements (STARA) in regards to their own jobs and how they are preparing for the changes.	Personal wellbeing	Employees
Duke et al., 2009	How POS has become one of the good strategies to help employees reduce stress level and control the work-life balance.	Perceived organizational support	Managers
Dwivedi et al., 2017	Attitude's central role in acceptance and use of IT innovations, specifically on behavioral intention and usage behavior which can be beneficial for managers so that they can shape the attitudes of individuals for influencing behaviors and intentions.	Attitude	Managers Employees
Gim et al., 2015	Employees prone to quit their jobs when they experience stress under CPC and higher expectations from managers which does not come true	Competitive psychological climate	
Jun et al., 2019	In consideration of the potential of the potential employment dilemma, the objective of the study was to investigate the relationship between employee's turnover intention and AI and Robotics awareness.	Artificial intelligence and robotics awareness.	Managers
Kim et al., 2010	It is primordial to identify as early as possible the antecedents of turnover intention for lodging organizations to be able to raise employee's commitment and enthusiasm to fully leverage a competitive advantage.	Turnover intention	Managers
Schorak et al., 2016	Under a competitive work environment, robotics and artificial intelligence usage will cause employee's to tussle one another for recognition.		
Guangming Coa et al., 2021	Explaining, predicting and testing manager's attitudes towards using Artificial intelligence on using artificial intelligence for organizational decision making with a balanced consideration of both the dark and beneficial part of the use of artificial intelligence		

Table 2: Managers and employees explanatory factors toward artificial intelligence use

This special issue presents significant contributions on factors that can assist managers and employees to get acquainted with artificial intelligence solutions.

IV. CONCLUSION

This study has been motivated by the rush of interest in the artificial intelligence phenomenon by both academics and practitioners, especially over the 10 past years. We took insight from recently published works on using artificial intelligence on using artificial intelligence in the organizational context. The main objective of our adoption a theoretical perspective in this study was to understand the factors that an organization really need to work on effectively to be able to understand what can influence managers' and employees' intentions to use artificial intelligence to improve the theoretical understanding. While a number of conceptual studies have highlighted AI's potential benefits (e.g. Agrawal et al., 2017a; Duan et al., 2019; Dwivedi et al., 2021) and others emphasized the "dark side" of AI (e.g. Shrestha et al., 2019; Weld and Bansal, 2019), there seems to still be a need for an understanding an individual's attitude and behavioral intention by considering both the potential benefits and negative effects associated with using AI based decision-making systems, this is what led us to this study to choose the factors on which organizations must work for the proper functioning of the organizational units(managers and employees). As with any research, our study is not without limitations, although we outline the main factors organizations could consider when designing their developed strategies focused on artificial intelligence, the factors cannot be considered as the only factors that can be found.

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