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ORGANISATIONAL RESPONSIVENESS: A TASK-TECHNOLOGY FIT THEORY PERSPECTIVE

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ABSTRACT

This paper discussed the concept of organisational responsiveness from the lens and perspective of the task-technology fit theory. This paper is designed as a theoretical paper, delving into the literature on the barriers and significance of technology in advancing responsiveness, ensuring the survival, competitiveness, and effectiveness of the organisation. Concerns hinged on the linkage between tasks and technology, particularly those which reflect the synchrony between organisational characteristics and technology systems were also discussed. From the review, related barriers such as (a) the incompatibility of technology with existing organisational characteristics and infrastructure, (b) the high cost of technology maintenance, and (c) the timeliness of technology in terms of the pace of change, were identified. Following the review, it is the position of this paper that the adoption and application of technology systems should be premised on conditions and frameworks that are structured to ensure their viability and effective integration, thus ensuring the success of the responsiveness of the organisation.

Keywords: Organisational responsiveness, task-technology fit theory, organisational change, technology acceptance model.

INTRODUCTION

Innovation in the 21st century is premised on information technology, and the application of such in advancing change and competitiveness (Azar & Cjabuschi, 2017). To survive and thrive, organisations must be able to drive their processes and services, using requisite information technology systems and apply such in ways that align with the unique peculiarities of their environment. Unfortunately, this has not been easy for most organisations (Soparnot, 2011). Studies (Nguyen, Beeton & Halog, 2015; Baum & Wally, 2003) affirm the challenges arising from the adoption of inappropriate technology models technology systems which turn out to be unsuitable for the organisation. These are often such that concern the implementation of outdated or overly complex technology systems that are disruptive and challenging to manage, especially where competent manpower is also scarce. These factors can be unsettling for the organisation and pose a barrier to its pursuit of its economic goals and interests.

Related studies (Adeleke & Dauda, 2011; Abatti, 1994; Cimoli & Giovanni, 2019), scarcely offer a glimpse into the significance of technology suitability in advancing preferred organisational outcomes, particularly responsiveness to change. Dilek, Robert and David (2009) identified the imperatives of the substantiality of technology infrastructure for organisational performance. They argue in line with the necessities of training and development in building robust systems, noting that manpower and technology systems need to be fully integrated to effectively drive the operational goals of the organisation. Similarly, Soparnot (2011) affirmed the imperatives of synergy in skill levels of the adoption of new technology. According to Soparnot (2011), such contributes to the seamless flow of information, its management and security. Most studies (Homburg, Grozdanovic & Klarmann, 2007; Barrales-Molina, Martinez-Lopez & Gazouez-Abad, 2014), in addressing organisational responsiveness, have treaded the dynamic capabilities theoretical path; focusing more on the pace of change and emergent capabilities than on the suitability of technology to tasks and functions, thus occasioning a knowledge gap in research.

While studies on organisational responsiveness and the dynamicity of skills, capacities and technology required to achieve such are imperative, knowledge on the extent of efficiency and effectiveness reflected in such responsive actions or behaviour is also crucial. This paper evaluated organisational responsiveness from the task-technology fit theory, expounding on extant studies and observations addressing the implications of poor task-technology compatibility in organisational change behaviour, and also espousing practices of technology model contextualisation for successful organisational responsiveness. The objectives of this paper are therefore to:

i. Expatiate on the theory of task-technology fit in line with the goal of organisational responsiveness
ii. Identify dominant challenges or barriers to organisational responsiveness bordering on poor task-technology fit
iii. Discuss the significance of task-technology fit to organisational responsiveness success

LITERATURE REVIEW

The Task-Technology Fit Theory

Goodhue and Thompson (1995) proposed the Task-Technology Fit Theory (TTF). According to Goodhue and Thompson (1995), the task-technology fit theory identifies the effectiveness of technology adoption and applications as premised on their matching the characteristics and specific features of the organisation, particularly its competency and infrastructure. Goodhue and Thompson (1995) identified these characteristics as important in the success of organisational operations. This interaction between technology and organisational features, especially tasks or functions for which such technologies are applied, is further elaborated by Wixom and Todd (2005), who asserted the significance of task and technology alignment for efficiency and effectiveness. Wixom and Todd (2005) opined that this condition determines and ultimately dictates the suitability and usefulness of technology systems to the organisation.

Bere (2018) identified the mismatch between technology systems and tasks as problematic. The author affirmed that while such systems may be effective and even recommended based on their success in other contexts, the replication of such results within other organisations or contexts may differ substantially and, often, not in the preferred way. According to Bere (2018), organisations must recognise the uniqueness of their features and the implications of such for technology adoption and use. This concern plays out clearly in the organisational change and response goals of the organisation as well. Most often, the mistake of following in the path of more successful organisations, especially in the line of technology adoption, can be costly and, more so, lead to significant losses for an organisation, despite its success for others. The task-technology fit theory, thus clarifies the need for functional choices when it comes to technology adoption, and the application of technology systems that not only support organisational objectives but assure of operational efficiency as well (Dauda & Akingbade, 2011).

From the perspective of organisational responsiveness goals, the adoption of technology systems should therefore be such that is knowledge-driven, flexible and also sustainable in the long run (Wixom & Todd, 2005). That is to say, related technology systems for consideration during organisational change response must be such that support learning and information management, readily adapted to the emerging needs of the organisation, and also cost-effective. Responsiveness, according to Abdullah, Sabah and Shawqi (2017), emphasises the organisation's capacity to keep pace and direction with the changes in its environment. Most technology systems are highly disruptive and require longer periods of integration or adaptation. Such disruptions stall progress and functionality and could also cost the organisation its place in a fast-changing or highly competitive market, especially when training or skills transfer requires time (Wixom & Todd, 2005). The task-technology theory furthers understanding of the criteria that shape the success of technology adoption and effectiveness. With the growing reliance of organisations today on technology, the task-technology fit theory poses a fundamental base for assessing technology adoption success, especially from the lens of results such as operational efficiency, effectiveness and

competitiveness (Boudreau & Robey, 2005). Dauda and Akingbade (2011) noted that in line with the concerns of technology adoption and use, organisations should install or enact modulation parameters that are focused on assessing the viability of technology systems, and ensuring the suitability of such for the organisation. This agrees with Abetti (1994) position that the streamlining of technology related actions is necessary for controlling and monitoring the organisations technology behaviour and in managing related excesses for the wellbeing and success of the organisation.

Concept of Organisational Responsiveness

Organisational responsiveness involves the related efforts of any enterprise or company to maintain pace with the speed of change within their environment. Such change could be reflected in the emerging nature of politics and governance, the dynamics of demand and supply in their markets or the turbulence from competition as well (Homburg et al, 2007). Responsiveness assures the organisation's survival through the restructuring and reconfiguration of systems and behaviour, to allow for improved adjustments to the demands and pressure from the environment. Studies (Luo, 2012; Homburg et al, 2007; Abdullah et al, 2017) suggest that responsiveness, need not always be reactive or consequential to the occurrence or evidence of change, but it could also be proactive and as a result of the organisations understanding or capacity to anticipate the changes or behaviour of its market or environment.

Responsiveness addresses key concerns of the organisation's sustained capacity for value and relevance within its markets. According to Luo (2012), it is a key requirement for the competitiveness and effectiveness of organisations as it details the extent to which requisite infrastructure in terms of competent manpower and technology is in place and duly applied to drive the interest of the organisation. Organisational responsiveness, as Abdullah et al (2017) argued, is a repositioning of the organisation given new or emerging facts or events within its market or environment. This, as Ambrosini and Bowman (2009) affirmed, draws not only on the internal but also on the external, such as strategic networks and partners, vendors, or supply operations as well. It is a holistic process that is best understood from a systems perspective, and the awareness of the significance of both internal and external constituents to the success of the organisation.

Technology-based Barriers to Organisational Responsiveness

Scholars (Venkatesh et al., 2007; Fartash et al., 2012) assert that despite its advantages, technology can pose significant barriers to the organisation's success. Understanding the implications of unsuitable or unsustainable technology systems can not only save the organisation money, but can prevent regressive outcomes for the organisation. Tidd et al. (2005) noted that technology today underlies almost any significant and outstanding innovation, but at the same time, it is one of the major factors behind the collapse of most organisations. If inadequate, it creates gaps in the operations of the system that can lead to poor competition and underperformance. Gleaning from literature (Boudreau & Robey, 2005; Fartash et al., 2012), one could argue that there are three major ways in, technology can pose a barrier to organisational responsiveness. These are (a) incompatibility with existing organisational characteristics and infrastructure, (b) its high cost of maintenance, and (c) its timeliness in terms of the pace of change. These barriers echo earlier observations with regard to the concerns of task-technology fit theory.

First, the compatibility with existing organisational characteristics describes the extent to which technology systems align with the organisation's capacity to manage them, have the required facilities, conditions or hardware for supporting such, or even the required competencies for engaging such (Baum & Wally, 2003). This is crucial and ensures the actual use of the technology. Second, the cost of maintenance can also pose a deterrent to organisational responsiveness as technology systems can become burdensome to the organisation, leading to high expenditure and increased cost for the organisation, thus stifling its progress in other key or important aspects (Kuo & Lee, 2011). Third, the timeliness of the technology is also crucial for its effectiveness. Outdated

systems are a drawback and, given their misalignment with trending practices and systems, ultimately pose as setbacks for the organisation, incurring more costs due to the inconsistencies and functional gaps they occasion for the organisation (Kuo & Lee, 2011; Azar & Ciabuschi, 2017).

Task-Technology Fit and Organisational Responsiveness

Organisations are defined by their functions. Individual tasks and responsibilities contribute to the overall stance and behaviour of the organisation. Through the integration of suitable technology systems, such tasks or functions are seamlessly carried out more efficiently and effectively (Cimoli & Giovanni, 2019). According to Bere (2018), the synchrony between tasks and technology saves time and integrates much more compared to the manual approach. This is because such integrations harness the speed and operational capacities of technology, alongside the decision-making and experience of the worker or individual, ensuring a man-machine preferred collaborative outcome for the organisation. Task-technology models Bere (2018) emphasize training as one approach toward engaging manpower in technology process, however, this positions technology in the fore-front, and as charting the course of the organisation; a perspective which some scholars (Dauda & Akingbade, 2011; Boudreau & Robey, 2005) have argued, leaves technology unbridled and with a tendency of misuse, abuse or misapplication.

Unbridled technology can also lead to organisational loss, misdirection and resource wastage. Through strict regulatory mechanisms and monitoring, organisations can consistently check and determine the pace, adoption and application of the type of technology suited to their own specific needs. The concerns of technology control are more aptly addressed in the technology acceptance model propounded by Davis et al (1989). The model specifies concerns of the external factors, including perceptions of usefulness and ease of use, attitude toward using and behavioural intention to use, Davis et al (1989) in their model, identified the environmental dynamics of the organisation as stimulating change, however, such decisions or the choice of the technology forms, are yet subject to or modulated by the individual or organisations perceptions and intentions for such technology. Davis et al. (1989) technology acceptance model is illustrated in Figure 1.

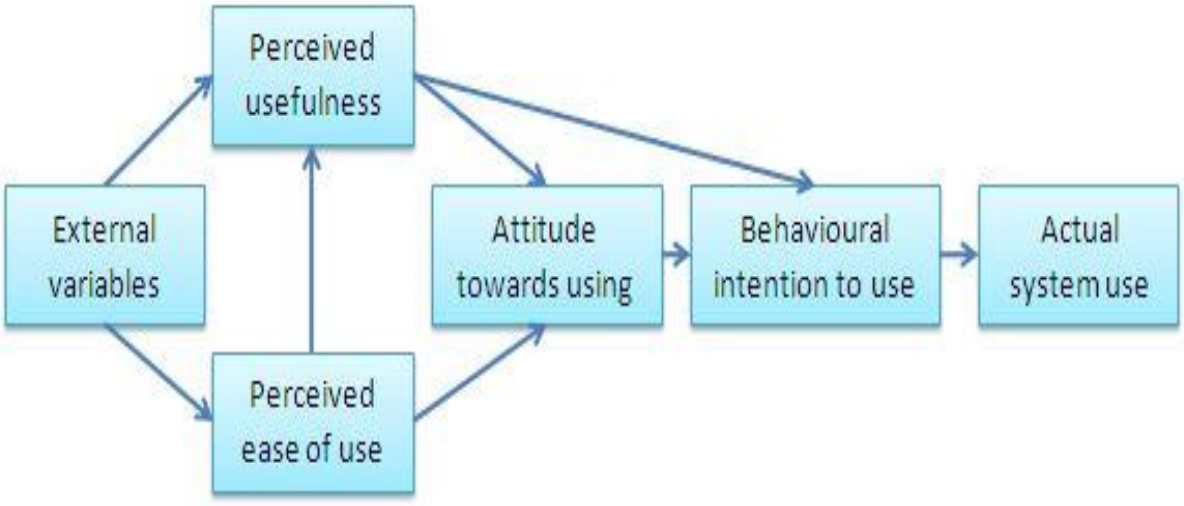

Figure 1: Technology acceptance model
Source: Davis et al (1989).

The technology acceptance model, by its core principles, echoes the task-technology perspective of this research. It's position on the significance of technology forms, usability and intent, as well as the adapting of technology systems for organisational specificity, reflect key concerns of the task-technology fit theory, especially in line with issue of functional synchrony. Such considerations are born out of the need for technology usefulness (Venkatesh et al., 2007). Such systems must align with the particular needs of the organisation are their adoption, justified based on their perceived usability. Thus, depending on the organisations task or functional needs which could extend to a

variety of concerns, such as collaboration with other partners, supplies and delivery, communication, information management, etc., the task-technology fit, conditions the success of the organisation and in this regard, substantially influences and predicts its capacity for responsiveness (Venkatesh et al., 2007).

CONCLUSION

Responsiveness at the organisational level is a dynamic process, and it entails much more than incorporating change mechanisms and structures geared toward aligning with the shifting conditions and factors of the environment. It requires a detailed focus on the matching or fit between technology systems and the characteristics of the organisation. This paper drew substantially on the task-technology fit theory in advancing an in-depth assessment of the imperatives of technology suitability and usefulness to organisational responsiveness. Its position, on the link between task-technology fit and effective as well as efficient response outcomes, is hinged on the noted significance of technology and functional compatibility, given the peculiarities of organisational context, goals and infrastructure; thus, affirming to the criticality of conditions and frameworks that are designed to delineate suitable technology systems and streamline behaviour and options in the adoption and integration of technology for successful responsiveness outcomes for the organisation.

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