Cloud Enterprise Resource Planning

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Cloud enterprise resource planning (ERP) is one of the most sought-after information technology (IT) solutions for improving business performance due to its affordability, scalability, and pay-per-use subscription model. The impact of cloud ERP implementation on business performance, on the other hand, remains inconclusive. Additionally, an important factor that transverses all organizational processes, including IT implementation, is top management support (TMS).

cloud ERP implementation financial performance top management support mediate moderate SMEs

1. Introduction

Cloud enterprise resource planning (ERP) is a critical component of a lengthy list of services offered in the cloud that also includes internet data storage for individuals, business services (for example, modules accessible via the cloud), virtual machines for the cloud, and other services built on the cloud computing (CC) structure [1][2]. A cloud-based ERP solution allows a company to centralize all of its core business functions in order to increase productivity and preserve a competitive advantage. Cloud ERP is critical for information interchange, product development, and knowledge management between businesses and their clients [3][4]. Significant cost savings are one of the primary benefits, particularly for small and medium-sized organizations (SMEs), because cloud vendors assume responsibility for hardware and infrastructure, as well as application maintenance, management, integration, and development [5][6][7]. Additionally, the cloud solution eliminates the need for SMEs to maintain an IT team, and it eliminates the need for upfront costs because it is based on a pay-as-you-go model [8].

Due to the fact that the majority of cloud ERP clients are small firms, SMEs adopt cloud ERP primarily for its adaptability, ease of control, and, most importantly, its low license, maintenance, and overall investment costs [9]. Despite the benefits of cloud ERP, its limitations include security, privacy, a lack of trust, a lack of industry-specific standards, and data loss [10][11]. Nonetheless, ERP has been widely deployed by organizations of various sizes in a variety of sectors and nations in order to achieve competitive advantages and thus improved performance [12]. Without successfully integrating a cloud ERP system, the anticipated benefits of increased efficiency and competitive advantage will not materialize [13][14]. However, research indicates that using cloud ERP to harness its benefits might be a double-edged sword for firms. For instance, some studies have demonstrated that cloud ERP can have a significant impact on firm performance [15][16][17][18], whereas others have concluded that cloud ERP has

a relatively insignificant impact on firm performance [8][19][20]. However, many of these studies focused exclusively on the direct relationship between cloud ERP implementation and performance, and Gupta et al. [8] suggested that the relationship between CC services and performance is not simply linear. The aforementioned contradictory findings underscore the importance of considering other reasons for the impact of cloud ERP implementation on firm performance. On the other hand, top management support (TMS) is widely recognized as the most critical success factor in all organizational processes and activities [21]. From the perspective of cloud ERP, the literature demonstrates that TMS is a significant predictor of cloud ERP implementation [22][23][24].

Additionally, TMS is critical, not only during the implementation phase, but also during the post-implementation (business value realization) phase, when top management is involved in defining IT initiatives, formulating goals, selecting budgets, and allocating human, material, and technical resources [25]. However, there are few studies examining the role of TMS in the post-implementation period of cloud ERP [26][27], and their findings are inconclusive. TMS was proven to be insignificant as a direct predictor of firm performance by Ooi et al. [26]. One could criticize this entry for excluding the CC implementation effect from its model. That is, it considered TMS as a direct predictor of cloud ERP implementation success, a notion dubbed deterministic by Dong [28]. On the other hand, Shee et al. [27] explored and discovered the moderating influence of TMS on the link between cloud-enabled supply chain integration and supply chain performance.

2. Theoretical Background

According to Barney [29], organizations can gain an advantage over their competitors by utilizing their resources and capabilities in novel ways [8]. According to Grant [30], there is a distinction between resources and capabilities. Grant defines resources as accessible and manageable factors. Capabilities refer to an organization's capacity to utilize business processes and resources to accomplish its goals. While an individual resource may be ineffective on its own, when combined with other resources to accomplish a certain objective, it becomes a capability [31]. These resources and capabilities are applied to a particular situation and are influenced by a range of contingent factors [32]. The resource-based view (RBV) hypothesis delves into the concept of valuable, rare, imperfectly imitable, and non-substitutable (VRIN) resources [29]. However, in the long run, the imitation of products may result in any company losing market share owing to competition, hence diminishing its profitability [32]. Due to RBV's "insensitivity to context," it can be challenging to identify resources or skills that belong under the VRIN framework, as Ling-yee [33] noted. The final attainable output of these capabilities, according to the contingency theory, is further influenced by unpredictable factors that are both internal and external to businesses [34]. Finally, contingent RBV enables a firm to have a better understanding of the context in which its resources and capabilities are utilized, which has an effect on its performance [35].

3. Top Management Support, Cloud ERP Implementation, and Firm Performance

The extent to which the top management of a business provides direction, expertise, and resources during and following the acquisition of ERP systems is referred to as “top management support.” [36]. Commitment from top management is critical to ensure that an organization’s objective is realized to the point of increasing company performance. Top management support is a critical factor in overcoming barriers and boosting an organization’s technological capacity to efficiently utilize new technological services or products [37]. Cloud ERP is one of the new technologies that businesses have recently embraced, and TMS is vital to its successful implementation. Cloud ERP is intended to resolve communication issues between functional area information systems (IS), to unify all of an organization’s units and departments, and to automate all of the organization’s procedures and operations [38][39]. Cloud ERP systems are more cost-effective, take up less time, consume less energy, and operate through the internet. Payment for cloud ERP software services is made via subscriptions that must be remunerated on a monthly basis, for example, for each user [40]. Therefore, it is the best alternative for SMEs who have limited resources. As a result, an increasing number of SMEs are implementing cloud ERP systems to increase their competitiveness, efficiency, and customer base [41].

The literature on cloud ERP systems has identified top management support as a significant success factor. For example, some studies have examined and confirmed the importance of TMS in deploying cloud ERP [5][24][41][42][43]. However, these studies were focused only on the adoption/implementation stage. On the other hand, other studies have devoted attention to the value and benefits of cloud ERP in the post-implementation stage. These studies have primarily sought to uncover the impact of cloud ERP on firm performance. Since, a company’s primary goal is to outperform its rivals in terms of better performance [44], firms use competitive IT, such as cloud ERP, in achieving this goal. However, the findings of these studies are overly inconsistent. For example, some studies have shown that cloud ERP can have a significant impact on firm performance [15][16][17][18], while others have found that cloud ERP has an insignificant effect on firm performance [8][19][20]. Nonetheless, a number of these research examined the direct relationship between cloud ERP implementation and performance, and Gupta et al. [8] argued that the relationship between CC services and performance is not linear.

Meanwhile, top management support (TMS) is widely recognized as the single most important determinant in the success of all organizational processes and activities [21]. Based on this perspective, it has been proposed that TMS should be incorporated throughout the ERP implementation process [45]. Al-Mashari [46] submitted that TMS should not end at the initiation and facilitation stages, but should extend throughout the ERP implementation process. Indeed, TMS is critical for the software’s overall performance during the post-implementation stages as well [47]. In clear terms, the explicit and active TMS toward the use of a new IS is crucial for CC assimilation, and the purpose during the post-implementation stage is to integrate the practical aspects of CC services into business processes so as to gain the anticipated business benefits of CC [48]. Nonetheless, a handful of studies were found that investigated the role of TMS in the post-implementation phase of cloud ERP [26][27]. Ooi et al. [26] found that TMS is insignificant as a direct predictor of business performance. This entry is faulted for failing to include the cloud implementation effect in its model. Additionally, Shee et al. [27] examined TMS’s role as a moderator in cloud-enabled supply chain integration and supply chain performance, and a positive moderating role was confirmed. Due to the study’s supply chain bias, it is difficult to extrapolate their findings to cloud ERP implementation that spans both internal and external collaborations, as well as overall company performance, as this entry examines.

Therefore, since the literature has shown the importance of TMS at the initial adoption/implementation stage, and the TMS role in the post-implementation phase remains unclear, this entry proposes to examine TMS in the post-implementation stage to contribute to resolving the inconclusive findings at this stage. In this instance, the novel simultaneous mediating and moderating roles of TMS are examined on the cloud ERP implementation and financial performance relationship. This is consistent with [49][50] regarding the importance of examining the mediating and moderating effects in order to properly understand the relationship between IT innovation and financial performance.

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