Global Business and Management Research: An International Journal
Vol. 14, No. 3s (2022)

Cloud ERP and Value Creation: A Case Study of EngCo

Zubir Azhar
School of Management, Universiti Sains Malaysia, 11800 USM, Penang, Malaysia
Email: zubirazhar@usm.my

Kenny Wei Jie Quah*
School of Management, Universiti Sains Malaysia, 11800 USM, Penang, Malaysia
Email: kenny_quah@student.usm.my

Jing Yi Goh
School of Management, Universiti Sains Malaysia, 11800 USM, Penang, Malaysia
Email: gngyigoh@gmail.com

* *Corresponding Author*

Abstract

Purpose: Many business organisations across the globe have adopted enterprise resource planning (ERP) to manage their massive and important data for various decision-making purposes. ERP plays an important role in handling complex workloads through its integrative features that can help organisations to create value. More recently, a growing number of organisations have shifted from traditional ERP to cloud ERP for better access and flexibility. In this study, we focus on how the implementation of cloud ERP in an engineering company (disguised as EngCo) has created value to its business operations.

Design/methodology/approach: We examined the role of cloud ERP in creating sustainable business value using a qualitative research approach. We adopted an interpretive case study convention to explore how EngCo made use of cloud ERP system to achieve its value creation goals. Our data collection methods revolved around reviewing EngCo's documents, as well as interviewing key people who were involved in EngCo's cloud ERP project.

Findings: Our findings suggest that the flexibility and accessibility offered by cloud ERP have enabled EngCo to create business value through its major feature of managing data and information remotely. With the cloud ERP system, key users in EngCo found it useful to change and to configure the system remotely which are tailored according to their specific decision-making needs that concerned improving business performance in a more sustainable way.

Research limitations/implications: Given that the value creation encompasses a large area of research, this study has limited its focus to the flexibility and accessibility of cloud ERP in creating value to the business organisation.

Practical implications: Findings from this paper provide the implementing organisation with an insight into understanding the potential value created upon implementing cloud ERP.

Originality/value: The value created by cloud ERP especially in engineering SME is rarely examined. By exploring cloud ERP's flexibility and accessibility features, this paper advances

our understanding of how the implementation of cloud ERP has created value for business organisations.

Keywords: Cloud ERP, Value creation, Accountants, Case study, Malaysia

Introduction

Enterprise resource planning (ERP) is a software and business application, which is designed to deliver, manage, and integrate organisational activities and functions, such as finance, human resource, distribution, and manufacturing management, into a single system. It is frequently utilized by business organisations to increase the efficiency and effectiveness of their operations in handling those activities and functions. Examples of ERP systems used by companies include Oracle ERP, SAP solution, and BizAutomation. Most commonly, these ERP systems are widely used in all-sized business organisations for managing, organizing, and improving their business processes. Although they are mainly designed for big firms to manage their complex and massive business transactions, their extensive applications have captured the attention of an increasing number of small and medium enterprises (SMEs) in managing and developing their business operations (AL-Shboul, 2019). Overall, ERP is used by various industries such as retail, pharmaceutical, hospitality, and construction to streamline their workflow or enhance their business processes.

According to AL-Shboul (2019), ERP systems create values to business by replacing specific tasks previously performed manually with automated systems that feature certain workflows. For example, the use of ERP system has substituted the paper works and manual sending of emails with automated workflow tools which are embedded in such systems. ERP systems include software components or 'modules' which focus on specific business processes such as finance, supply chain, and human resources (Bahssas, AlBar & Hoque, 2015) most (if not all) of which are integrated and linked to accounting functions. Interestingly, the finance module is used to automate basic accounting processes, which include invoicing, forecasting, and reporting. With this finance module, business organisations no longer use stand-alone accounting software. Instead, they resort to ERP systems as they integrate and manage all the financial and accounting transactions from multiple business units or product lines (Abuhashish & Tahat, 2020; Fatehi & Choi, 2019).

More recently, the cloud ERP, which is the latest development in the ERP range, has revolutionised the capability of ERP systems in that it is being featured as being able to add value to business organisations not only that it can continue its legacy as an automated workflow and integrated system, but also it is available online in the cloud platform for flexibility and accessibility. In short, cloud ERP has provided numerous features that are available across the ERP system. It brings a lot of benefits to the business which improve the performance of the business and generate actionable insights.

Currently, cloud ERP is trending and this accrues to its popularity in running on the cloud platform which allowed the business to access the system through internet more flexibly and with better access. They have adopted cloud ERP to take advantage of a simpler deployment. There are many advantages that cloud ERP can bring to the business organisations. Even though some previous studies have reported about the cloud ERP benefits, there is still less research on how cloud ERP creates value to business organisations, operations specifically in a SME business that immerses itself in the engineering business. In this study, we will focus on how cloud ERP systems add (or create) value in terms of enriching flexibility and accessibility to an engineering company (which is disguised as EngCo). In EngCo, the cloud

ERP was introduced to integrate their business functions since they encounter problems with information being delayed from one business function to another.

The main aim of this study is to analyse how cloud ERP creates value in business. Nevertheless, the objectives of this study are threefold:

1. To explore the flexibility and accessibility of cloud ERP systems in managing business activities and functions of EngCo.
2. To analyse how cloud ERP creates value in EngCo.
3. To examine the changes brought by cloud ERP to accounting practices and accountants in EngCo.

Literature Review

The Concept of ERP

ERP is a system that is deemed essential in today's business environment, and the number of SMEs that are replacing their legacy systems with ERP systems is growing at an exponential rate (Buleje, 2014). In the past, only big firms and corporations have the financial capabilities to implement the ERP system. However, with the current development, SMEs are seen to have implemented such systems to reap the benefits that they offer. According to Hassan and Mouakket (2018), SMEs can implement ERP through various ERP packages (ready-made or over-the-shelves) with the promise of becoming more competitive, efficient, and customer-friendly. Some of the popular ERP packages are SAP Business One, Sage 300, and Microsoft Dynamics NAV. These ERP packages are cheaper and more affordable to SMEs compared to custom-made ERP. SMEs can choose ERP packages according to their budget and requirements to achieve their business objectives.

According to Goumas, Charamis and Tabouratzi (2018), ERP can integrate all individual systems and their associated functions into a single system. The integration concerns combining the data and information from different process points to store them in a single comprehensive data repository (Kashyap, 2019). This suggests that ERP can fulfil different business needs and improve organisational coordination and efficiency. Overall, ERP allows an organisation to combine business data (from operations and logistics, procurement, sales and marketing, human resource management, and financial management) for various decision-making purposes (Goumas et al., 2018). According to Rajan and Baral (2015), ERP enables communication and improved coordination through improving information flow among sub-units, as well as standardization and integration of data and information. The centralization of administrative processes such as account payable and payroll is made possible through the integration of data and information. ERP integrates the core business processes and gets rid of information transfers in disparate systems across different departments and locations. Due to its integrated and combined features, ERP has been regarded as an organisational tool that improves the performance and effectiveness of business (AL-Shboul, 2019). For instance, ERP has improved business performance through inventory and workforce reductions, and improvement in productivity and order management. In the nutshell, ERP can improve coordination across various functional departments and thus, increase efficiencies of doing business (Sivam, Dieguez, Ferreira & Silva, 2019). Similarly, a more efficient working environment could be created by reducing the amount of communication and time spent between operational partners and finance personnel regarding queries on related data and information because the ERP has

the facility to generate those queries. The time saved can be allocated to other value-added activities (Ammar, 2017). ERP can also boosts business efficiency by enhancing the management's ability to collect timely and reliable data and information across the entire organisational setting. Such data and information would allow the management to access updated cost and operational data and information to make various operational and financial decisions (Goumas et al., 2018).

Generally, ERP is known as a worldwide system that helps business organisations to obtain data and information encompassing local and worldwide transactions. It is claimed to be the 'enterprise-wide system' that helps business organisation to manage the business by having a single integrated information system (Ammar, 2017). Moreover, ERP system connects a variety of business processes and allows the flow of data between them. More importantly, it reduces data replication and provides data consistency with a single source of truth (Bahssas et al., 2015; Fatehi & Choi, 2019). It also serves as a platform to interact and collaborate with third parties for business (Bahssas et al., 2015).

Implications of ERP Systems on Day-to-day Accounting and the Role of Accountants

According to Hassan and Mouakket (2018), ERP systems differ from legacy systems in terms of scale, complexity, organisational impact, cost, and subsequent business impact. Therefore, the implementation of ERP systems will have a significant impact to an entire organisation together with day-to-day accounting processes and the role that its accountants play.

ERP systems are built around separate functional areas that ultimately integrate through certain facilities to produce meaningful data and information. One of the implications of ERP systems' integration facilities is that they change an organisation from a functional orientation to a process orientation. It can be seen from the change in the management and financial reporting structure, the way report is generated and the requirement for communication across the different department. Besides, management accountants and the management accounting system are impacted by the ERP system. Whilst the direct effects can be observed through the report content, timing, and scheduling, the indirect effects can be observed through the changes in management practices and business processes (Ammar, 2017).

ERP systems support the core organisational and day-to-day activities by reducing the time spent by accountants collecting business data. Data collection without the help of ERP systems are time-consuming for accountants because they have to manually enter all the data such as account receivable and account payable to the systems. However, with ERP systems, the input of data will be automated through the use of the centralized database. All data and information are now easily obtained from the centralized database and forward-looking reports are usually produced to improve the analysis of existing business activities and/or new options. The forward-looking reports can further assists accountants to analyse the business performance by reviewing accounting information monthly by comparing revenues, expenses, profits, and overall performance (Ammar, 2017).

The centralized database also supports the core organisation's activities by sharing more timely information. Real-time access to data and information enables business organisations to streamline their management structures (Ammar, 2017). This is because with the real-time access to data and information, instant updates can be provided to facilitate quicker and more informed decision-making (Goumas et al., 2018). Clearly, ERP systems promote standardization of practices which allowed accountants to produce consistent and quality services, and thus contribute towards making informed decisions within their respective business organisations. However, it exerts more pressure on accountants because the output is

immediately visible organisation-wide. Thus, accountants are exposed to higher pressure due to the standardization of procedures and the high rigidity of ERP systems, which suggest that they are powerful leverage for accountants to improve their accountability and legitimize their new role as business experts or advisors (El-Sayed & Youssef, 2015). Since the popularity of ERP systems is affecting the core role of accountants especially in large companies (Ammar, 2017), accountants are no longer focus on a task like data gathering, but more on data interpretation and consultation (El-Sayed & Youssef, 2015).

Heinzelmann (2018) asserted that the implementation of ERP does not change the core responsibilities of accountants. It is just that ERP systems have made it quicker and more efficient for accountants to exercise their core responsibilities following the readily available data and information (Heinzelmann, 2018). Such extended facility has resulted in accountants to focus more on higher-level activities such as variance analysis, cost-savings, and productivity improvement (Ammar, 2017) rather than merely reporting the data and information for diverse interpretations amongst business managers and top management.

Clearly, accountants are allowed to expand their role with the implementation of ERP. ERP system allows them to carry out many duties that were part of accountants' daily routines. The number-crunching tasks were eliminated, and accountants have more time in strategic decision-making, business management, and information technology (IT) (El-Sayed & Youssef, 2015). As indicated by Ammar (2017), accountants have more time to analyse the data and information rather than getting the bottom final figure. With further analysis, they are more focused on understanding the business operation. In short, the ERP switches accountants' focus from preparing information to interpret and use the information generated from the system for decision-making (Ammar, 2017).

So far, the literature has particularly focused on how ERP systems add (or create) value to organisations, and how it changes the accounting practices and accountants' roles. It highlights ERP's integrating capabilities in improving the efficiencies and effectiveness of business organisations so that value could be created accordingly. Yet, there are more to these value-added (or value creation) activities that an ERP system can contribute to business organisations, especially the latest cloud ERP. Given the flexible nature of cloud ERP, which is discussed below, this paper attempts to explore how this nature further add (or create) value to EngCo.

Cloud ERP: Addressing the Current Business Challenges

Cloud ERP is an ERP system that is based on cloud computing technology. It provides similar functionality as traditional ERP but adds on some unique features. As suggested by Pareek (2014), there are three (3) types of cloud-based systems available in the market: Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS). There are also two (2) access types of cloud that organisations can engage in private and public systems. Private systems are only accessible internally (with no access to customers). Meanwhile, public systems are open and accessible by anyone, and customers can directly access the systems. Users can access cloud ERP via a browser over an internet connection and are able to access relevant data and information through ERP systems.

The cloud-based feature of cloud ERP has provided a high degree of flexibility to the business. The flexibility in the context of this paper refers to the properties of cloud ERP in which it can be modified according to the needs of the customer. In relation to that, the literature noted four different flexibilities, which are economic flexibility, performance flexibility, process flexibility, and market flexibility (AlBar & Hoque, 2019; Nowak & Kurbel, 2016). In terms of economic flexibility, cloud-based services can provide flexible pricing options depending on

the choices of storage and bandwidth. For process flexibility, cloud ERP allows scale up or down on resources being processed. The performance flexibility in cloud ERP is that it is available anytime and anywhere. In terms of market flexibility, cloud ERP focus on the core competence and ability to implement a solution to help businesses to perform better than the competitors (Chang, Wong, Eze & Lee, 2019).

Cloud ERP also offers the capability to log in and access the ERP system remotely. It allows the business to access the data anytime and anywhere on a remote server off-site when the internet connection is available (Peng & Gala, 2014). Cloud ERP enhances the flexibility of the business to connect to the system remotely (Weng, 2014). Cloud ERP enables the business to access all the data and information at any time in any location using the internet (Zhong & Rohde, 2014). With the cloud ERP, a business can overcome the restriction to access the system and allows businesses to access the data and information anywhere. Cloud ERP can be accessed anywhere not only from PCs but also from handheld mobile devices such as smartphones and tablets. Managers can check and update data after the transactions occur regardless of location (Peng & Gala, 2014). Cloud ERP is designed to allow the system to available online from various locations and devices. The potential of cloud ERP can allow the business to provide more ubiquitous services (Zhong & Rohde, 2014).

Methods

This study is carried out by conducting a qualitative research approach. The purpose of having a qualitative research method is to obtain an in-depth understanding of this topic cloud ERP system and the role of cloud ERP system to expand the value-added (or rather to create value) in business. In this study, there are two methods used to collect data: semi-structured interviews and internal documentary reviews (involving the cloud ERP manual and internal circulars) at an engineering company (disguised as EngCo). This allows the use of data triangulation which can help to validate the result if the result from both methods leads to the same conclusion. The case study on the engineering company will provide a deeper understanding of how cloud ERP adds (or creates) value to the company in the practice. Four interviewees were chosen, (a) General Manager of the Contract Management Department; (b) Accountant of the Contract Management Department; (c) General Manager of the Finance Department; and (d) Accountant at the Finance Department to conduct interviews regarding their view toward the new cloud ERP system that they are currently using. The sample questions used in conducting these semi-structured interviews are compiled in the appendix of this paper. The case study on EngCo is aimed to give an insight into how cloud ERP adds (or creates) value in practice.

Findings

The Case Study on EngCo

This case study deals with the implementation of the cloud ERP system in EngCo. This engineering company is a Bumiputera telecommunication engineering work company. EngCo focuses on the installation of fibre optic cable and copper optic to its clients. The operation of installation of fibre optic cabling and copper cable includes review, installation, splicing, and terminating cables and complete cable testing and documentation. EngCo also has more than 20 years of experience in handling works involving civil engineering and electrical engineering. EngCo is responsible for overseeing all civil work involved with telecommunications work such

as route drainage, installation of cable holes, and construction work on cabinet plinths. Besides, EngCo has some experience in handling projects with government-owned body namely Telekom Malaysia Berhad (TM), Tenaga Nasional Berhad (TNB), and Public Works Department (JKR).

Prior to 2018, EngCo used to perform information processing for business-related information by using the UBS accounting system. Generally, UBS accounting system is designed for SMEs to record the processes of the business transactions and provide reports such as trial balances and income statements. There are some cons of using the UBS accounting system which are the difficulty in importing data and the software is hard to download and update. The main issue EngCo found in the previous accounting system is the delay in the information processing. The delay in the information processing leads to the increase of uncollectable debts. The delay in the information processing also leads to another issue which is the delay in filing the audited financial report to the companies commission of Malaysia. To solve the issue, EngCo decided to implement the SmartLab ERPIII system, a cloud ERP, which provides a better solution for EngCo.

SmartLab is an ERP vendor that provides EngCo cloud system services to perform information processing. Cloud ERP adopted by EngCo is a crucial element which brings flexibility to the business. SmartLab also offers EngCo three (3) different module deployments to streamline their business flow. Module deployments are the software component that focuses on a specific business process.

Module deployments help the business to come up with cross-departmental integration of data through embedded business processes Ammar (2017). The integration of data will make the data available to all personnel and modify to meet an organisation's specific requirements. There are three (3) module deployments implemented by EngCo as shown in Figure 1 which are the Revenue and Supply Module (which is also known as the Contract Project Management System, or CPMS), the Finance Module, and the Posting Module.

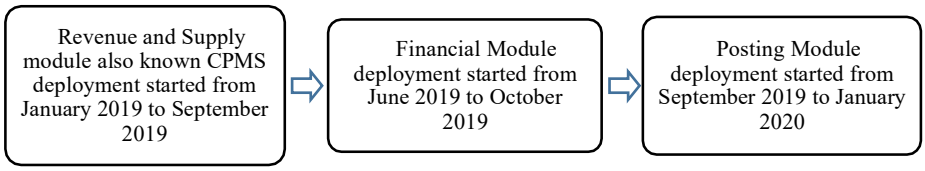

Figure 1. Implementation Timeline

The implementation of these module deployments has helped EngCo to add (or create) value to its business through the interfaces that integrate the data between different departments. Posting Module (as shown in Figures 4 and 5) is used to integrate the CPMS (as shown in Figure 2) and the Financial Module (as shown in Figure 3). CPMS is used to track the progression of the contractors engaged with the company while the Finance Module is used to generate reports such as financial reports or other reports relating to the company's business. The Posting Module provides the integration between two (2) different modules and integrates the data and information into a single common database. The concept of a single source of truth (SSOT) held by cloud ERP system ensures that everyone in the organisation makes business decisions based on the same data and ensures that the data are always consistent. Before the new ERP system was implemented in EngCo, accountants were required to manually record the data from the accounts receivable and payable into the Finance Module. After the implementation of Posting Module, the data is posted from the CPMS to the financial module by configuring the Posting Module. Posting Module matches the accounts to the correct chart of accounts related

to them. The current ERP system has added value to EngCo by ensuring the data are consistent, accurate and reliable and created more sustainable business value through various interfaces and integrations.

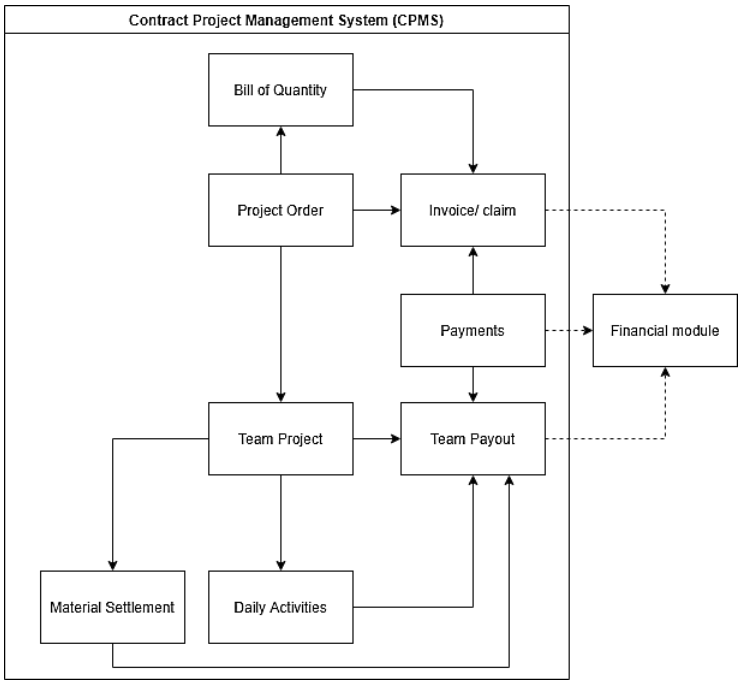

Figure 2. Contract Project Management System (CPMS)

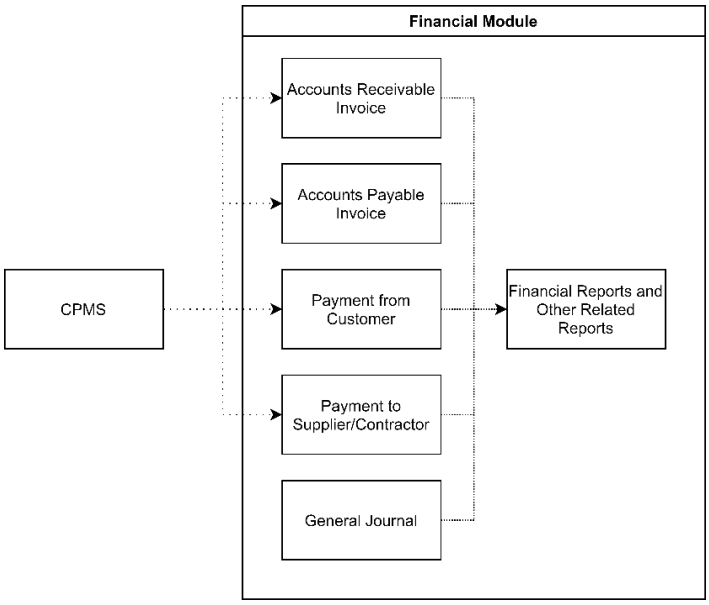

Figure 3. Financial Module

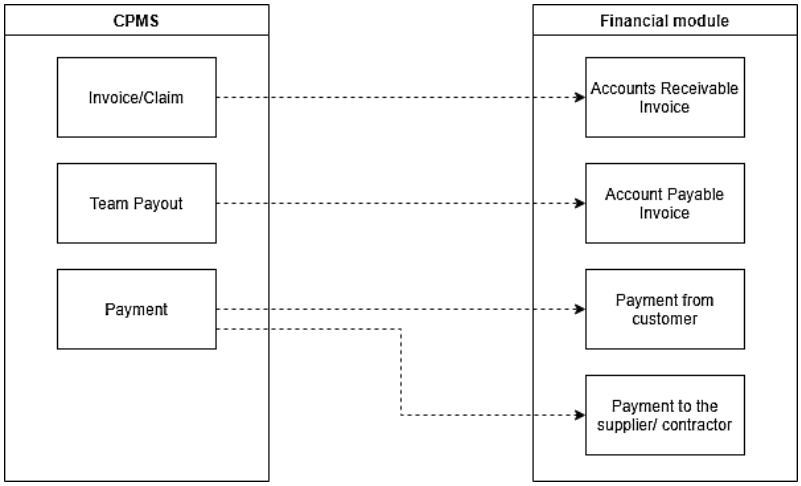

Figure 4. Before Implementing the Posting Module

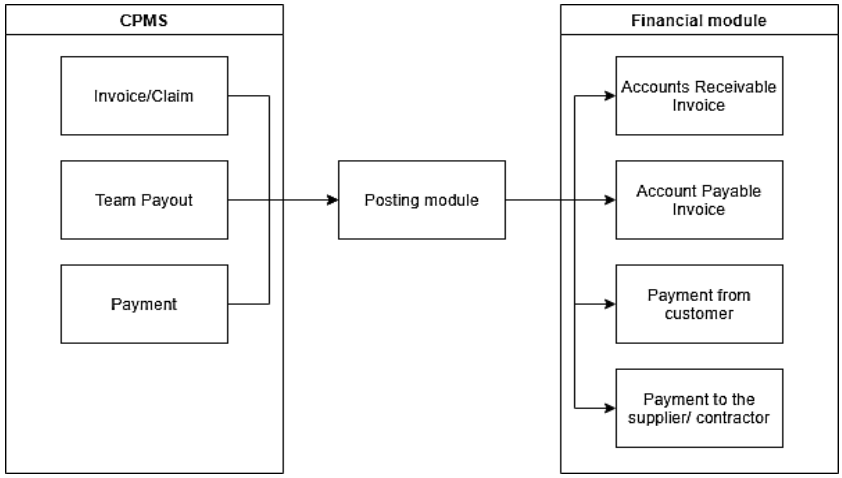

Figure 5. After Implementing the Posting Module

Cloud system has provided flexibility to the business via its cloud facility. The cloud system allows EngCo to access data and information remotely. All data and information are accessible at any time in any location by the use of internet. The accountants in EngCo can access to the data and information in the system in real-time anywhere. The easier access to data and information also brings convenience to the accountants for them to get the information.

> *'It's very flexible, now I can simply access the system anytime and anywhere […] if I go to the site and notice the data is not right, I can inform the General Manager and he will grant me access to change the data. Last time we had to wait until we came back to the office and waited for the general manager to grant access to amend the data. That was taking much of our time.' (Accountant of the Contract Management Department)*

> *'I would say that this is better for us [accountants in the Finance Department] when it comes to reviewing the data entry […] sometimes the actual document is placed in another location. The previous system couldn't*

allow us to access from the other location. So, we were required to print the data to cross-check with the document and this is very troublesome. But now, the system can be accessed anywhere and it enables us to review documents that are placed in another location anytime we like.' (Accountant at the Finance Department)

'For me, it improves how I react to different cases. The need to grant access can now be given anywhere or adjusting the price in the system. Previously the General Manager has to be present in the office to allow such task to be performed.' (General Manager of the Contract Management Department)

Besides, the flexibility of cloud ERP system has expanded the value-added through the acquiring of timely, accurate, and reliable data and information. Data and information have been regarded as important for various decision-making activities in EngCo. The consistent, accurate and reliable data and information are crucial to enhance decision-making processes. With the real-time access to data and information, users can get instant updates which can facilitate quicker and more coordinated efforts to achieve the desired performance.

'Now the system is connected on a real-time basis, I can check the financial performance anytime and this is good because I'm better informed with such data and information […] I got to request for debt collection if debtors haven't paid. Actually, we are suffering from uncollectible debts due to the previous system [UBS] which was not able to provide the real-time information to us and of course many other issues. Due to these, the General Manager at our department couldn't decide in time].' (Accountant at the Finance Department)

In addition to the above, the efficiency of accountants has also improved through the implementation of cloud ERP. The automation of data processing appears to signify a more active role of accountants. For example, before the implementation of the cloud ERP, accountants in EngCo had to enter data from accounts receivable and accounts payable, and general journals into the financial module of the system. After implementing the cloud ERP, the data from the CPMS is integrated with financial module system. The data is posted automatically from the CPMS into the financial module except for some general data. The automation of data has reduced accountants' task involving entering manual data into the system. Certainly, this has improved accountants' efficiency because they can utilise the time saved to focus on data analysis and interpretation. The occurrence of data asymmetry and data duplication is also reduced with the automation of data processing. With the reduction of the possible occurrence of the error, accountants' efficiency and productivity shall improve.

'So far, I can obtain the data straight away from the site since some of the data is dependable on the project the company is engaged with. Of course,

we have to cross-check the data obtained from the site later with the person in charge but it's better in the sense that the data are already entered as compared to the previous system which was not the case.' (Accountant of the Contract Management Department)

Based on the above, it is clear that the accessibility has also improved ever since the new implementation of cloud ERP in EngCo. This is not only felt by accountants of EngCo, but also managers in the different departments. For example, managers dealing with human resources and finance functions have better accessibility to cloud ERP as compared to the previous UBS system in terms of payroll and ageing reports respectively. For example, when the previous system was still in use, they had to be in the office to rectify mistakes made by accountants due to the segregation of duties. However, upon implementing cloud ERP, such data entry mistakes made by the accountants can be rectified by managers themselves by accessing the cloud system online. Moreover, some of those managers can control the accountants' accessibility on the system easier to prevent them from accessing the wrong function and mess up other areas of the system.

'Well, enabling flexibility and accessibility is the first thing that comes to my mind. For a General Manager like me to rectify any mistake entered by the accountants previously was not easy because I had to be present in the office to do so […] as you know the segregation of duties here is that any mistake entered into the system would have to be deleted by the General Manager only. So, it's difficult and I don't really like it.' (General Manager of the Contract Management Department)

'For me, the user interface is easier for me to restrict the accessibility of the accountants. The configuration on the amount of accessibility by our accountants can be easily changed by a few clicks. Sometimes you don't want them [accountants] to access other areas of the system because they can mess up [i.e., mistakenly entered data into the wrong place] the system.' (General Manager of the Finance Department)

Value-added (or creation) and the role of cloud ERP system in EngCo

To reap the benefits offered by this era of technological advancement, the implementation of cloud ERP in EngCo has turned into the most widespread IT solution used by this engineering company to add (or create) value in many aspects.

First of all, the implementation of cloud ERP in EngCo has provided the business with flexibility to access data and information remotely. In other words, the implementation of cloud ERP enables the accountants and managers in EngCo to access the data anytime and anywhere on a remote server off-site. This fact led to data and information sharing in real-time anywhere in Malaysia even if the project fieldwork is not located near to their office. The barrier of geographical location can be easily eliminated. Overall, the flexibility of this cloud ERP has

speed up the information processing and enable the real-time information in EngCo by allowing the user to access the system anywhere and anytime. Thus, the information processing in EngCo is more fluid and this system had reduced the accountants and managers idle time in managing and accessing the data and information which led to a more productive working environment.

Next, the implementation of cloud ERP not only enables real-time access to the information but also helps the business to make a more accurate decision. In EngCo, the data and information have been regarded as "trade commodity" to ensure that they are able to collect debts from their receivables and generate financial reports in time for the audit. Thus, they implemented the cloud ERP system to obtain those data and information in time. Such data and information allows EngCo to reduce their operational costs especially those related to debt collection and penalty on the late submission of their audited financial reports. This has important consequences in its overall performance in terms of cost savings and strategic profit maximisation.

Besides, value is also created through efficiency. One of the great strengths of cloud ERP is it provides the automation of manual tasks. Although it is not new, cloud ERP also able to replace the manual handling of tasks with an automated workflow system, similar to traditional ERP. EngCo's workflow process seems to have been eased due to the automated workflow tool which has substituted the manual and paperwork. The efficiency is created when the manual handling of tasks is replaced with an automated system provided by cloud ERP system. This automation had reduced the overall operational cost in EngCo especially those related to manual data entries (leading to an increase in their financial performance), thereby, value was created.

In the nutshell, the value created from the implementation of cloud ERP increases the standardization of information and streamlines business processes. The implementation of this system in EngCo standardizes all the business processes. Information can be shared easily compared to their previous system. With the implementation of cloud ERP, cross-departmental business processes are easier to manage and handle and the communication between cross-department will be simplified. In a word, ERP system adds value to the EngCo by offering standardization of process to the business which helps to ease the management of data and information and the communication between cross-department. As a result of this standardization, the quality of the information in EngCo improved which contributes to better decision making and improved their financial performance.

Discussion and Conclusion

The purpose of this study is to provide insights into the latest development in ERP systems (cloud ERP) which is currently under-researched. This study is carried out using a qualitative research approach in view that this topic has previously been widely researched and covered in the literature using quantitative approaches. Since cloud ERPs are evolving to fulfil the complex business demands, there is a need to conduct an in-depth study to explore the implementation of cloud ERP in real practice. A case study on an engineering company which is EngCo was carried out to address these concerns. The purpose of the case study is to identify how cloud ERP can add (or create) value to the business specifically in an engineering company. The case study on EngCo has given us some useful insights into how cloud ERP adds value to the company in the real market through the flexibility and accessibility that it offers to EngCo's business with its core feature and module deployment.

Practical and Social implications

Through the case study conducted, we can see that cloud ERP does bring a lot of benefits to business organisations in terms of flexibility and accessibility. Cloud ERP provided flexibility to the organisation and allows it to access data and information remotely over the cloud. The flexibility provided by cloud ERP systems also improve the accessibility of user toward the systems. The cloud ERP has added (or created) value to the organisation by improving the accessing of the data and information to the accountant which helps to improve accountant's efficiency. Lastly, the automation of data processing also helps to improve the efficiency of accountants which added value to the organisation. In short, cloud ERP helps to add (or create) value to the organisation in terms of the flexibility and accessibility which has resulted in improved organisational performance and has enabled EngCo to sustain in its business since its first inception.

Limitations and Suggestions for Future Research

The study from this paper focuses on cloud ERP and value creation by observing the flexibility and accessibility of the cloud ERP in enabling the case company to speed up information processing. However, value creation resulting from implementing cloud ERP is not only limited to the flexibility and accessibility features in processing the information but also other possible aspects such as improving coordination and communication between business functions. Thus, future research can extend this area of research in exploring the value created by cloud ERP by examining the improvement in the organisation's coordination and communication between business functions.

Acknowledgement

The authors would like to express their gratitude to the School of Management, Universiti Sains Malaysia for financial support given to complete this study.

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Appendix

Sample questions used during the semi-structured interviews

No	Question(s)
1	What is the difference between the current ERP system and the previous information system based on your user experience?
2	How does the current system adds (or creates) value to the flexibility of their usage in information processing as compared to previous UBS?
3	What do you think about the new ERP adoption on overall business process performance?