BUSINESS ON THE GO: TOWARDS A CLOUD-BASED BUSINESS SOLUTION

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Abstract

Cloud-based technology is becoming popular due to its advantages, such as lower cost, efficiency, and availability. However, business applications running on the cloud should be studied to share the benefits that a business can harness from cloud computing. The study focuses on the experiences of online companies with the existing tools for various online business transactions. The paper uses a case study design where seven (n=7) key informants were interviewed in-depth. The responses were transcribed to come up with clusters to represent various themes. The study proved the heavy dependencies of online business on technology. Still, it also revealed the status of today's cloud-based systems used by small companies in NCR and the need to improve the tools available. Furthermore, the study revealed that there are a lot of issues to be addressed on the part of the online tool under cloud technology, and policies on online business have to be strengthened.

Keywords: *online business processes, online tool, online payment, online purchase, online orders, online returns*

Introduction

At times of crisis, like the present COVID-19 pandemic, where physical movements are limited or banned, and one's access to business information is limited to the workplace, everything stops, hurting the business further, thus worsening the economic condition of the country (Fabeil et al., 2020; Hidalgo et al., 2021). People are caught off-guard during the lockdown. Many companies were in panic and crammed, instructing their anxious workers to return to their workplaces to get essential files needed for continuous business operations while working from home (Nicomedes & Avila, 2020). The unprepared actions of the companies added complications to an already complex situation.

Access to information is critical for making decisions and proper actions for a business. The digital divide is closing, and the cost of online

access becomes cheaper with an improved speed and convenience (Ramlugun & Jugurnauth, 2014); a new computing model has emerged called cloud computing. Remote servers become available, reducing the cost of technology implementation and maintenance. This model attracts businesses to venture because of the overwhelming foreseen advantages. It also enticed developers to change the platform from private to an extended reach – a system sitting on the cloud.

Clearly, during these times, the importance of cloud computing emerges. Cloud computing is the delivery of computing services through the internet. These services include the hardware (server) and the software, data storage, databases, and networking. Cloud computing allows users to access files on demand, work on them, and save them in elsewhere data storage (Wang et al., 2010).

Cloud computing is cost-effective, as users do not have to purchase the infrastructure, pay for software, and hire personnel to run the system efficiently. Instead, a user simply has to pay for cloud services. Cloud computing allows people to devote time and resources to making their business productive, and therefore, it is considered another utility that will become part of human life in daily activities, especially in industry (Buyya et al., 2009, as cited in Shishira & Kandasamy, 2021).

However, cloud computing raises issues that need to be addressed, such as data security, privacy and trust, bandwidth and data transfer, and data management and synchronization (Noor et al., 2018). With cloud computing, Software As A Service (SAAS) becomes more attractive to service providers and businesses (Armbrust et al., 2009, as cited in Jonas et al., 2019). Service providers save time and effort in support and maintenance. At the same time, the business enjoys a tool that provides efficiency without worrying about everything else, including unnecessary procedural, administrative, hardware, and software costs (Xue & Xin, 2016).

When doing business online, a tool should be designed to consider all components: the technical aspects and the business processes (Pfisterer et al., 2016). Different business organizations use diverse business approaches. The challenge is how to make a shared model that will serve the majority of the users as they may differ on design and applied business rules online (Qurrata et al., 2020).

Effective cloud-based business solutions should offer process optimization to reduce internal costs, network linkages to reduce coordination costs, and new value propositions (Laudien & Daxböck, 2016). An equally important issue on legitimacy and non-proprietary of the tools used in online businesses, primarily home-based (Daniel et al., 2014).

A business solution where the actual recipients are the users themselves should be designed with high confidence and acceptability

(Grimaldo, Uy, & Manalo, 2020). Several issues like data confidentiality, bottlenecks, storage, and continuity of service should be critically considered (Armbrust et al., 2009 as cited in Jonas et al., 2019). Failure to do such will lead to business solution implementation failure.

This study aims to investigate the status of the current cloud-based systems used by businesses in the National Capital Region vis-à-vis the system's characteristics being above. The study emphasized the informants' actual experiences to make an in-depth study on their experiences in doing business online and draw inferences on how to have efficient and effective online business transactions.

The study results will enlighten the different stakeholders of cloud-based technology and offer insights on improving the current systems. For businesses, the results can be used as a basis for a standard cloud-based system. For the system providers, the results can give them the provide specific areas to improve. For the government, results can be used as a policy implication on how to address encountered issues online.

Methods

Research Design

The study used a qualitative approach with a case study design. An in-depth analysis was done through interviews of key informants to provide insight into their experiences in doing online business transactions. A systematic approach was followed to conduct the study for determining the participants, making research protocol, data gathering, and presentation of findings (Rashid, Rashid, Warraich, Sabir, and Waseem, 2019)

Participant Selection and Study site

Purposive sampling was used which aims to select participants who are performing online transactions (Miles and Huberman, 1994 as mentioned in Campbell et al, 2020). Qualified informants should be of legal age, running a small online business, and using online technology for their operations. Further, the target key informants are into online business transactions such as purchasing goods (raw materials or finished products) from suppliers using available online tools to market and sell these goods. Transaction includes an online payment to suppliers, online payment from customers, or cash on delivery. Issues on return of goods bought or sold were also tackled.

There were seven (n=7) informants, two of the key informants are male, and five are female. Four informants belong to the age group 19-24, and three belong 25 to 30. Four of the informants are college students, two of them have regular office jobs, and one is a full-time online business owner.

Data Collection Procedure

Some online business owners and technical experts reviewed and validated guide questions in cloud computing. Initially, the guide questions were distributed to the key informants for well-thought responses. For response clarifications and follow-up questions, an in-depth face-to-face interview was conducted (Fontana & Frey, 2000). Face-to-face interview responses were correctly recorded on a text document and later transcribed.

Ethical Consideration

Before the interview, an informed consent form was sent to the target informants seeking permission and their convenient schedule for the interview. The form included the purpose of the interview, the key elements of the study, the degree of participation of the informants, and an assurance of the confidentiality of their identity. The face-to-face interview lasted for one hour for each key informant.

Mode of Analysis

Recorded interviews were transcribed, read, and re-read for a better understanding of the responses of the key informants. Hierarchical clustering was done to build a dendrogram to represent the data collected. A group of similar data forms each node in the dendrogram (Takai & Ishi, 2010). The nodes were linked to provide a visual representation of data collected.

Findings

After data were collected, they were transcribed and categorized. As a result of data analysis, the following categories were derived:

- Geographic profile of the customers
- Geographic profile of the suppliers
- Customer order placement
- Order placement to supplier
- Returns from customers
- Returns to suppliers
- Payment to suppliers
- Payment from customers
- Cloud-based (Online) Tool

Geographic Profile of the Customers

The geographic profile performs to the geographic locations of the customers. From the interview, most customers are located in the National Capital Region (P1, P2, P6, P7). However, there is a growing awareness in the nearby provinces (P3, P5) of the far-flung areas due to

online reach and efforts to market the product online; thus, many orders from the different regions are coming in.

P4. The whole Philippines, from Luzon, Visayas and Mindanao.

Geographic Profile of the Suppliers

The geographic locations of the suppliers or sources of goods varied. Some goods are from Quezon City (P2), the National Capital Region (P1, P6, P7), some are from the different provinces in the Philippines (P3), China (P5), and because of the phenomenal "K-Pop," some goods are from Korea (P4). Most of the goods are made in China for variety, technology, and cost.

Customer Order Placement

Customers place orders from online businesses using an online tool attached to the product information. It includes basic information like quantity, order date, product name or code, and customers' delivery information.

Placement of orders comes in different forms. Some utilize social media, particularly Facebook (P5, P7). Some customers use text messaging or any other messaging technology (P6). However, a more organized ordering tool is deployed like an online form (P1, P4) to capture and adequately label necessary data. Some still order physically in stalls (P2), while some are a combination of online and in-store (P3).

One challenge shared by one informant is the mix-up of order information mainly because of different online tools used.

P4. "The probability of mixing up information is high. Since customers often order from more than one group order, we have to maintain a lot of their records, and there are times that we miss encoding customers' details."

Order Place to Supplier

Business owners place orders to the suppliers using an online tool provided by the supplier. Typically, information about the business must be listed first as a customer of a particular supplier. In this digital age, visiting a physical store is still a practice. During the follow-up interview, the informant said she wanted to see the quality of goods she was buying and eventually sell to her customers.

P2…." sometimes, I would get products that are not exactly as seen in the picture"…

Another informant shared that she would do it online and sometimes visit the suppliers' store (P3). In contrast, some of those importing business owners would do it purely online by using available online messaging systems (email, chat, Viber, etc.).

Returns from Customers

Unsatisfied customers may return goods if they are not in the expected condition upon receipt. However, before return or refund, owners try to investigate first. If the damage is in the account of the owner or its courier, the return is processed via courier (P1, P5) using online applications, or if possible, a store drop-off is an option (P3). Replacement is made after returns, and courier charges are shouldered by the owner (P5). No return is allowed if the damage is on the customer's account (P4).

Returns to Suppliers

Unsatisfactory product conditions can be returned to the supplier upon receipt of the owner. Although there is a possibility to return goods from the local suppliers, the informants usually do not return goods since most of the return cost agreements are shouldered by the purchasing party (P5). Informants opt not to return, especially if the supplier's distance is to be considered (P4, P5). For those with suppliers abroad, return is out of the question; as one says

> *P4…." we cannot check the items one by one, so we cannot return a damaged good to the supplier. However, before selling, the sellers usually inform us of the damages on the product, if there are any."….*

Payment to Suppliers

The manner of payments made to suppliers varied from non-online to online environment. Non-online payments like (P1, P7), cash (P2, P3, P6), and check (P3) are still in practice. Bank transfers and PayPal (P4, P5) are utilized for online transactions.

Payment from Customers

Most customers opt for Cash on Delivery (COD) (P1, P5, P6). Some are using online facilities like bank transfers (P3, P7). One informant shared that her policy does not accept cash, so the customers' options are purely online.

> *P4…." our customers have the option to pay either through bank transfers, GCash, Paypal, Cebuana Lhuillier, or Palawan Express."*

One challenge shared by informants is the no-response attitude of the customers upon delivery of orders (P5), especially when the payment mode is cash on delivery.

Cloud-based (Online) Tool

The informants use various online tools to make the business transaction, and most of them are free, like Facebook, Instagram,

Messenger, Shoppe, Lazada, google forms, and google sheets. Their transaction data are hosted in the remover server called "cloud."

Using online tools offers a lot of conveniences, from product communication to customer conversion and purchase. Products can reach more customers and consequently increase revenue. Though online, customers can do things fast and access information in real-time. It makes work easier and faster (P1) and makes customer communication fast and easy (P5).

P2. " They can pay us through Gcash, and it's more safe."…

P3. …" more orders"…

P4…." It is easy to keep track of everything and look for something in an instant. We can also make changes real-time"…

On the downside, since the informants use different tools, they have difficulty consolidating data into one (P2). As a result, sometimes, some data from other tools are being taken out of the picture. The analysis is also difficult since data are not structured, scattered, and connected (P5, P7). The current tools also lack features to generate business-related reports with ease.

P4. " We have to encode everything, from the customer details to their orders. It is time-consuming and requires a lot of work."

Discussion

Like a brick-and-mortar type business, online businesses do the same transactions, aided only with technology covering connectivity (internet), devices, infrastructure, storage, and application (Dubosson-Torbay et al., 2002). The study revealed that technology is a vital tool to reach more customers and transact business with suppliers by breaking the distance barriers (Ong, 2013). Considering the geographical challenge in the Philippines, informants' reach in terms of customers is broad. Also sourcing becomes easy with the use of technology.

When it comes to facilitating customer orders, they are made fast since the order form is the most common available online tools. However, due to various tools being used by customers and the absence of a centralized ordering system, some order-related communications are being left out. On placing an order to suppliers, mixed modes are utilized. There are orders on-site due to quality concerns, and there are purely online due to distance, especially overseas sources. Centralized recording of orders is not available as well. The current state of the ordering system is not yet at par with common industry standards (Adithya et al., 2017; Saratha et al., 2017; Tanpure et al., 2013).

On returning goods, returns are investigated first for control purposes, and if so warranted, returns are processed through couriers using online applications. If the damage is on the customer, a return is not granted. Goods returned are on account of the informants. On return to the supplier, informants usually opt not to replace the ordered goods due to the return agreement of shouldering the courier cost for returns. The control concept is coherent with Trilaksana (2019), and returns policies aligned with Chen and Chang (2003).

Payments to suppliers are usually made via cash, checks, or online facilities. Customers' payments are generally cash on delivery, while some are online, especially if the online business policy is to pay online. Since most customer payments are cash on delivery, the most challenging part is when the customer cannot be located at the time of delivery. While there were no problems posted about online payment during the interview, most customers prefer cash as evidence of their behavioral characteristics towards online payment (He & Mykytyn, 2007).

For online business owners, online tools are too valuable as their vehicle to conduct business online, reach their customers instantly, communicate with ease, remain safe at the time of the pandemic, and get real-time information. However, it also surfaced that utilizing different tools by following the ways of the customers online makes it difficult for online business owners to have a single organized data from which they can analyze and draw important business information.

Implications of the study's findings basically focused on two things: (a) the cloud-based business solution's design, and (b) e-commerce governing polices or laws. On the design aspect, the results revealed that there is a need for a comprehensive and single tool to manage the whole business cycle. For the legal aspect, there is a resounding clamor for protection under the law or implementation and monitoring of the existing laws regarding the conduct of online business for both the business and the consumers specifically on the non-meeting of the service level as maybe perceived online.

Conclusion

Businesses can grow fast by using online tools. One can reach more customers and conduct business with significant partners such as the suppliers. Businesses can enjoy many benefits from online tools, such as fast business transactions, real-time information, and efficient business communication available 24/7, anytime, anywhere.

This case study surfaced that online business owners rely heavily on technology. On the other hand, the study also revealed that no single online tool or technology could cater to the needs of the online business owners. If there is one online tool close to what they are looking for, online business owners might not afford its cost. Online business owners want

to analyze their business, but the current tools make it difficult due to scattered data, that is, unstructured and unconnected.

With the foregoing experiences of the online business owners, a formal and complete yet affordable online business solution is apparent (Ijaz & Rhee, 2018). A cloud-based system that will not heavily require an intervention from the online tool authors as the way they utilize current online tools is needed. Cloud/online system developers may consider developing a solution to cater to the needs of the online business in the Philippines, which are regarded as micro as a majority of them are home-based businesses. There is also a need to polish online business policies to protect consumers and businesses, especially product quality, returns, and payments.

Limitations and Recommendations for Further Study

The research is not without limitations. Due to the pandemic, where a face-to-face meeting is limited in Metro Manila which was placed under high risk, the researcher could only interview seven key informants. Although they have varied backgrounds, increasing the informants in future research is advised.

Due to the expanding reach of internet connectivity in the Philippines, where online users are also located with varying degrees of connection speed and stability, a future study can cover a more extensive scope to gain more insights to contribute to the current findings.

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