

A Cloud-Integrated Business Process Redesign Framework for Digital Transformation in Traditional SMEs

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Abstract—Fast moving digital technologies have forced small and medium sized companies (SMEs) to restructure their business processes to increase sustainability and competitiveness. Yet many traditional SMEs - particularly in the food and beverage industry - still rely on manual and fragmented processes that impede efficiency, scalable and data integration. This research describes a cloud-integrated methodology to reform business process in a conventional Bakery using Suisse bakery Jakarta as qualitative case study. Data were collected through direct observation and semi structured interviews with operational stakeholders to identify current company operations, operational challenges and digitization needs. These results were mapped into a restructured business process model based on value chain analysis, use case modeling and cloud-based system architecture design. The suggested redesign combines online ordering, digital product catalog management, social media marketing and delivery services with cloud-based inventory, finance, warehousing and reporting systems. The resulting architecture combines corporate data and provides real-time information access to business processes. The research concludes that process visibility / data interoperability / operational flexibility / organizational scalability through cloud-based business process redesign improves process visibility / data interoperability and reduces dependency on physical IT infrastructure. This research mainly contributes a systematic digital transformation framework that makes business process redesign a precondition for cloud adoption and not just an outcome of technology installation. This methodology helps conventional SMEs to adopt cloud-enabled operations and contributes to the literature on digital transformation by providing a systematic approach to align business processes with cloud computing technology.

Index Terms— Business Process Redesign; Cloud Computing; Bakery Management System; SME Digital Transformation; Qualitative Study.

I. INTRODUCTION

We all know that the food and beverage business world, especially the bakery homemade business is growing bigger from time to time. Most of SMEs have developed and consolidated the business according to the new era of technology[1], but some do not integrate with technology, because of the lack of knowledge of the system. The food and beverage industry in particular the bakery sector has expanded due to increasing consumer demands for service efficiency, accessibility and digital engagement. In response to these changes many small and medium sized firms (SMEs) started adopting digital technology for their operational activities, customer engagement and managerial decision making. Despite this trend, many conventional SMEs still use manual business processes because they lack technology expertise, budget constraints or fear of organizational change.

To enlarge the business, they must figure out and prepare of the several ways to support the supporting business process [2] from the marketing strategy, store location, human resources, variative menu of the food and beverage and the most important thing is the infrastructure of the system they build to enhance the daily operational business process activity. In many SMEs digitalization initiatives focus on system implementation rather than business process change resulting in slow technology adoption and low performance improvements.[3] The infrastructure itself must be in support not only for the business process, but also for the activities and design of manufacture [4]. With a good infrastructure system, it will help to integrate the whole system for selling and buying at the bakery, to provide a better service for customers and to win the competition among other bakeries[5].

SMEs looking for economical, scalable and adaptable information solutions have turned to cloud computing. Unlike on-premises architecture, cloud-

based systems let enterprises access data and applications remotely, reduce hardware maintenance costs and dynamically alter computing resources as needed.[6] Such attributes make cloud computing particularly useful for SME operating in dynamic sectors like the food and beverage industry. Successful cloud deployment demands an absolute alignment between business processes and technical architecture - an area often not adequately investigated during traditional baking operations.[7]

For this research, the business process design is designed to Suisse Bakery, a very well-known old-fashioned bakery located in Hayam Wuruk, Jakarta since 1978. Although it is a well-known old-fashioned bakery, it is also important that they need to develop a good management system to survive and to maintain the customer from other bakery competition in Jakarta. Suisse bakery has not been integrated with technology since 1978, all the business process they are running is still manually. No website to promote the bakery, no online ordering system (OOS) and no system management to manage the customer's order and payment. The payment is only in cash, so the customer sometimes finds it difficult to make the payment other than cash.

This study aims to produce a design of business process in terms of technological infrastructure embedded with Cloud computing in the form of diagrams, catalogues, and matrices that can help Suisse Bakery in enlarge their business and to help to maintain the business management system also can help bakery staff manage data, including information on products, transactions, raw materials, and reports. Reports are available for owners to view without visiting the business due to the application's internet connection[8]. With the boom of electronic technology, medium-sized and small firms (SMEs) are becoming very competitive in the food & drink segment as well. Digital transformation facilitates operational efficiency, customer engagement and also managerial decision making for the firms by using information technologies. Many traditional SMEs still use manual, disconnected and non-integrated business processes which cause operational inefficiencies, restricted scalability, data inconsistencies and lower response to market changes. Cloud computing is an appealing technology solution because of its scalability, flexibility, accessibility and cost effectiveness to SMEs. In previous research, benefits of cloud adoption for SMEs were debated and identified as better data management, lower infrastructure costs and greater organisational agility. But prior research has focused mainly on factors affecting the implementation and adoption of technology and less on the redesign of underpinning business processes - a key indicator of whether cloud technologies can deliver organizational value.

This reveals a research gap. Business process redesign and cloud computing are acknowledged accelerators of digital transformation but little is known about their integration in traditional SMEs with

manual workflows. Current research often considers cloud adoption merely a technological upgrade, and not a transformation effort that requires a synchronization of organizational processes with digital infrastructure. Thus the ignorance remains as to how traditional SMEs should restructure their operation before adopting cloud-based solutions. Herein, a cloud-integrated business process redesign methodology with Suisse Bakery Jakarta as case study fills this gap. Research highlights the strategic role of business process redesign for cloud adoption combining value chain analysis, use case modeling and cloud-based architectural design. This work contributes to the digital transformation literature through providing a structured framework combining operational processes with cloud technology and offering practical assistance to traditional SMEs to achieve sustainable digital transformation.

II. LITERATURE REVIEW

A good business in this era of development should follow the world's technology that is always changing so fast. It is not only about how to make a good selling point, but also important to maintain the loyalty of customer satisfaction.

A. Business Process

According to [9], in his book "Business Process Change", the definition of business processes is a series of activities carried out by a business which includes the initiation of inputs, transformation of information, and producing outputs. The output can be valuable to the business or market customer, it can also be valuable to other processes (within the organization). A business process can be broken down into several sub-processes that each have their own attributes that contribute to achieving the objectives of the parent process. Sub-processes can be broken down into activities, which are the smallest sub-processes that can consist of one or more steps that must be included in the business process. With the business process maturity model, it can help the daily operational process, management process, supporting process more effective and efficient [10].

BPR is a fundamental technique for enhancing organizational performance through fundamental rethinking / rebuilding of operational processes leading to dramatic improvements in key performance measures such as efficiency / quality of service / responsiveness / cost savings. This Business Process Redesign is relevant in the food and beverage industry because the operational operations involve several interrelated processes such as procurement / inventory management / production / sales / delivery and customer service / etc. Poor coordination between these tasks often results in delays, inaccurate inventory records, higher operating expenses and lower customer satisfaction.

Previous studies have demonstrated that BPR can dramatically improve operational performance of food-related organisations. BPR techniques together with digital process integration enabled food SMEs to improve business processes and cut processing time by 48% by using automated mechanisms for sales and inventory management.[11] Similarly, research in food and beverage industry showed that process reform, innovation thinking and alignment of organisational resources improve operational performance and competitive advantage. Results indicate that constant redesigning corporate activities is necessary for efficiency and competitiveness in dynamic market contexts. New literature on digital transformation further demonstrates that technology alone cannot create organizational value unless accompanied by structured business processes. Business process Management (BPM) and digital transformation are therefore complementary projects where Process reform is the basis for a successful adoption of digital technology.[12] This is especially relevant for traditional SMEs in the food and beverage industry where many operations are still manual and fragmented. Therefore, business process redesign is required before introducing cloud-based solutions to enable process standardisation, data interoperability and organisational readiness for digital transformation.[13].

B. Cloud Computing

Cloud computing is always giving the new concept of integrated information system by providing scalable and virtual resources for the company. Good techniques and resources, live migration, will vastly improved data center based cloud with little of performance overhead. [14]. Next In figure 1, shows there are three main components inside of cloud computing, like infrastructure, platform, and also application. And it is all connected to Laptops, Servers, desktop, tablets, phones [15]

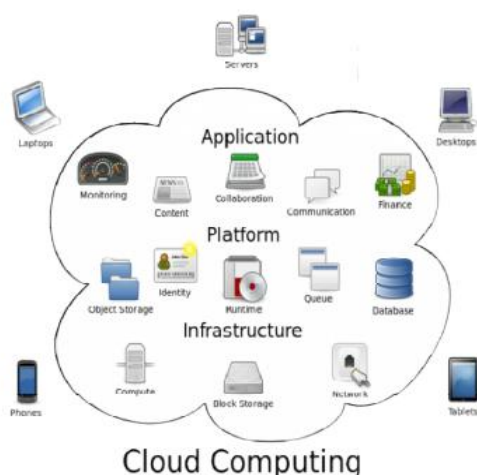


Fig 1. Cloud Computing

An information system called the Computing-Based Management Information System (CMIS) may perform a range of management-related duties, provide accurate information to all levels of management within an organization, and evaluate different types of data. Cloud computing concepts state that it is primarily built on five distinct qualities, including pay-as-you-go and self-provisioning of resources, along with shared resources, extreme scalability, and flexibility. The concept of cloud computing is distinct from previous computing paradigms that presumed restricted resources. Rather, the foundation of cloud computing is a business model that shares resources at the network, host, and application levels. Since cloud solutions enable organizations to lower the cost of computer resources, there is an increasing demand for cloud computing services.

The Information System becomes more superior and cost-effective with cloud computing, increasing its overall usefulness to a company. The following are the primary ways that cloud technology has affected information systems:

- **Reasonably priced infrastructure:** Companies may save a significant amount of money by avoiding the need to buy and maintain hardware. An enterprise can choose any of the three alternatives based on their needs and make the appropriate payment if they require public or hybrid cloud.
- **Quick access to information:** In this sense, cloud computing has completely transformed everything by enabling on-demand access to all company data from any location in the world without the need for physical presence. Whether you are at home, on vacation, or in route to or from the office, all of your information is accessible via an internet-connected device.
- **The ability to scale:** A cloud-based information system only requires a request to the cloud service provider; everything else is taken care of for you. In contrast, a traditional management information system would require the purchase and installation of hardware to fulfill the update. The service provider promptly updates cloud storage systems and apps to guarantee scalability and save a significant amount of time and work.
- **Enhanced collaboration and integration:** It might also help the business give its customers better service. Without the cloud, this kind of collaboration or integration would not be feasible since it would be necessary to install third-party apps on the data-containing systems and grant physical access to the systems to their IT staff to make the necessary deductions.

One of the main worries that cloud users have since the cloud's introduction is security. Numerous dangers could jeopardize the security and safety of user data. Recent years have seen a rise in cyberattacks and data breaches, putting cloud service providers at danger of losing the private data of their customers. The problem can be solved by always maintaining the rapid

development of cloud computing, to protect the most crucial things like data privacy and service availability [16]. Among many other factors, weak or insecure passwords, inadequate firewalls, and unprotected APIs are the most common causes of cyberattacks and account theft. [17]

As a critical enabler of digital transformation, cloud computing provides SMEs with on-demand, scalable, flexible and cost-effective access to computer resources, apps and data storage through internet-delivered services. In contrast to conventional on-premises infrastructure, cloud-based systems require no major hardware or software investments and thus enable SMEs to adopt new digital technologies despite financial and technological limitations. Operations - cloud computing centralizes data administration, allows real time information exchange and facilitates communication across corporate divisions. Integrated cloud systems manage company functions such as inventory management, sales transactions, customer ordering, financial reporting, production planning, delivery management & supply chain coordination in a digital ecosystem. Dieser integration reduces data redundancy, manual processing errors, process visibility and prompt and informed managerial decision-making. Also, through cloud computing the organizational agility, scalability and operational reliability are also increased as the cloud organization can alter the resources according to the variation in the market demands. Cloud adoption improves SME performance through optimizing operations, lowering infrastructure costs, improving scalability and making data more easily accessible across organizational units. [18] Research indicates that cloud computing benefits are maximized when technology implementation fits organizational processes and operational requirements. Consequently cloud computing needs to be considered more than an information technology infrastructure, but an enabler of business process integration and a platform for long term digital transformation, particularly for traditional food & beverage SMEs looking to improve operational performance and service quality.

C. Bakery Management Information System (BMIS)

BMIS is a computerized Bakery Management Information System. The system's customer database handles the issues of registering new agents on a daily basis, managing stock levels, and handling refunds, deliveries, product sales, and rates. Following registration, a consumer receives a special code that must be entered each time a purchase is made. By analyzing report trends, including stock taking, items sold, costs, and profits, the bakery can forecast supply and demand and improve its production and sales departments, among other areas, with the use of BMIS. The inputs and outputs are processed by the Bakery Management Information System (BMIS). It will help the admin to make the job more easier such as managing the production data, orders and payment [16], [19]. Details about data inputs include product sales through purchases, which will require filling out forms for sales,

products, deliveries, returns, and agents. Forms such as completed product forms and stocking details are filled out to handle manufacturing specifics. Sales reports, stocktaking reports, completed product reports, delivery reports, return reports, and all searches, such as returns searches, are among the outputs that will be produced [20].

One of example from BMIS is Bakeroo as seen in figure 2 and Bakeroo managing plan in figure 3. Using a single platform, manage the workforce management, production management, inventory, workplace health and safety, and food safety for the bakery.

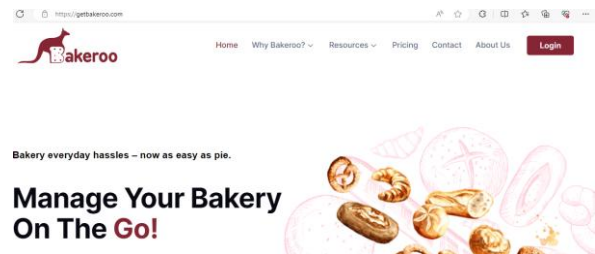


Fig 2. Bakeroo Website

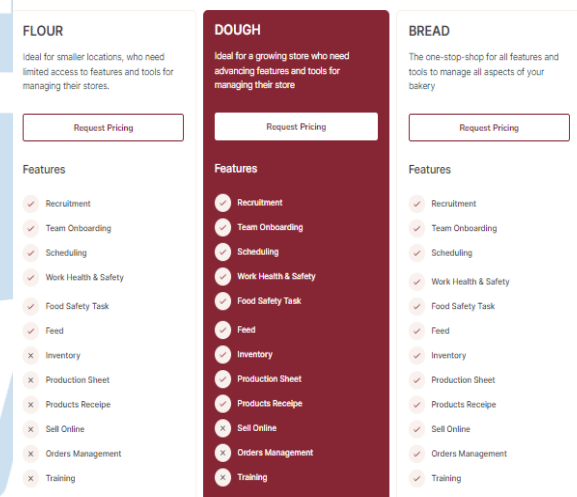


Fig 3. Bakeroo Managing Plan

Although the Bakeroo system has its ability to integrated all the system in a bakery, the system also needs few attention in the system limitation such as the ability of the users or bakery admin to have a knowledge or understanding the process of using the bakeroo system, and mastering the solutions for the system's problem. Also from the Vendor's side (Bakeroo system), the storage of customer's data such as daily transaction, customer's personal data, only stored inside of the Bakeroo's platform and give limitation to the admin or users when the data wished to be store outside of the platform. Using Vanilla implementaion for the Bakeroo, none of modification of the system can be made, forcing the bakery to use the default system. This process can trigger mismatch between the organization's business processes and standard processes applied in vanilla implementation.

III. METHODOLOGY

The methods apply for this research are qualitative methods which are observation by visiting the bakery store as a customer and take a journey to have a tour at the bakery environment, see on how the business process is running with observation and interviewing few of the employees such as cashier and waiters [21].

1. Research Information

The research involving three key informants who were directly in touch inside of the Suisse Bakery's operational activity, they are consist of one store supervisor, one of the cashier and one of the kitchen staf.

2. Interview technics

The semi – structured interview were conducted to explore existing business processes, operational flow and information flow. The interview is about 15- 20 minutes at the bakery.

3. Observation

The research were observed on the daily operational activities such as customer ordering, cashier transaction, production activities and reporting processes. Field notes were recorded to document workflow sequences, communication patterns and operational bottlenecks.

4. Data Validation

To improve data credibility, source triangulation has been applied, by comparing information obtained from interviews, direct observations, and organizational documents.

5. Data analysis procedure

The analysis was held in four stages:

- Identification the existing business processes through observations and interviews
- Mapping the operational activities using value chain analysis
- System development for the system requirement using the use case modelling
- Design of cloud-integrated business process architecture based on identified operational requirements.

The Research design stages are shown in Figure 4, it starts with an explanation about the main activities and supporting process that include in the management of Suisse Bakery. Next, using a use case diagram to clearly identify the system's relevant part, define the various components of the business process and ascertain how information systems link to the business processes of the management of the Suisse Bakery.

The final design is to create an architecture-based cloud computing infrastructure for the Bakery's internal stages. Bakery environment is very important to determine the integration for whole main role for the business process like customer and the bakery staff or worker [22].

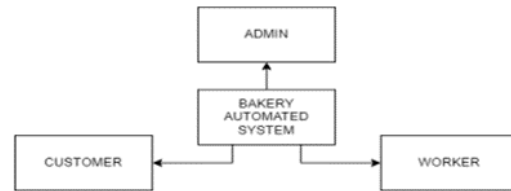


Fig 4. Bakery Environment

The research is using qualitative methods with interview and observations. For the figure 5 below is showing the research design stages.

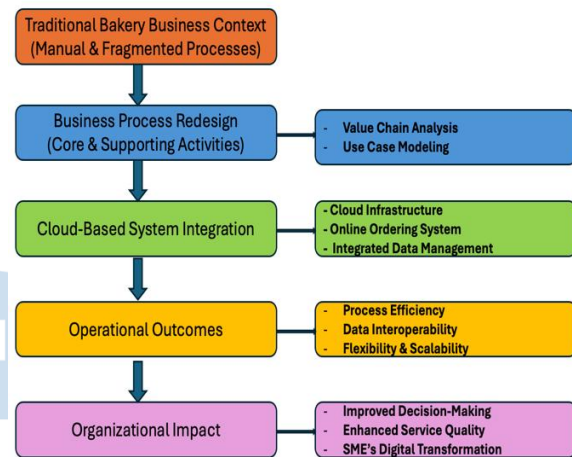


Fig 5. Framework Study

This work's conceptual framework defines the relationship between business process redesign and cloud-based system integration for digital transformation in conventional small and medium-sized enterprises (SMEs). The paradigm operates against the background of a conventional baking firm with manual, disjointed and non-integrated operational processes.[23]

- Initially the framework considers the conventional bakery business environment where all operational tasks like ordering / payment / inventory / reporting are performed manually. This state often causes data inconsistencies, restricted process visibility & operational inefficiencies which limit organizational scalability & market - readiness.[24]

- The second stage considers business process reform an essential tool for digital transformation. It considers business process redesign as an intermediary step rather than directly integrating technology. Value chain analysis and use case modelling identify and restructure key activities like online ordering, delivery services and customer interaction as well as supporting activities like kitchen operations, finance, marketing and warehouse management. Dieser process-oriented methodology guarantees that technical solutions correspond to real operational needs.[25]

- As the facilitating technology layer, the framework adds cloud-based systems after process redesign. Cloud computing offers scalable infrastructure, centralized data storage and real time access enabling optimized business processes to work

across roles. Cloud infrastructure provides system functions independent of physical IT assets for online ordering systems, inventory, transaction processing and management reporting.[26]

- Playing with restructured business processes in combination with cloud-based systems yields better operation outcomes like process/data efficiency, data interoperability, flexibility and scalability. These results allow SMEs to adapt operational capacity to changing demand conditions, relevant in the food and beverage industry.[26]

- It demonstrates how such operational enhancements induce large organizational benefits such as improved managerial decision making, improved service quality and sustained digital transformation. Such a paradigm places business process redesign as a precondition for cloud adoption, building upon the existing literature on SME digitization and providing a systematic path for traditional firms moving to cloud-enabled operations.[23]

IV. RESULT AND DISCUSSION

The result is in this section for designing the business process for Suisse Bakery Management system, through the Value chain to explain about the whole process in main activities and supporting activities (seen on Figure 6). For main activities there are Catalogue Menu, Social Media Campaign, Delivery courier, OOS (Online Ordering System). For the Supporting activities there are Kitchen, Marketing/Sales, Finance/Accounting, Warehouse.

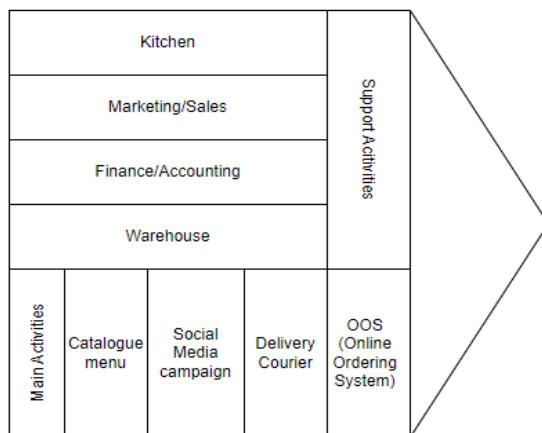


Fig 6. Value chain of main activities and support activities

The catalogue menu for bakery is a product catalogue that is filled with pictures of the bakery menu, detailed with the description of each menu and complete with the price to make customer easier to choose what kind of menu they want to order. The catalogue menu is presented in full color, divided based on the characteristics of the menu, for example the food and beverage section is different to make the customer easy to find [27].

Social media campaign is social media promotion [28]. Every social media networking site caters to a certain demographic and employs varying methods to enable users to exchange ideas, videos, images, and links, forming a network of individuals linked by shared interests. The growing quantity of people on these platforms has drawn businesses to incorporate online advertising into their marketing strategies because of social media's ability to target consumers and the fact that it is frequently less expensive than TV or print advertising. Social media networking services like Facebook, Twitter, and YouTube allow millions of people to share information, disseminating news from across the globe as well as news about their own lives [29].

Next is Delivery Courier, we call it to provide a good service to the customer. For running the business nowadays, the customer is not only on a walk-in to the store, but after they ordered by phone or website, the store will prepare the products and ready to deliver to the customer. Will be an advantage for customers not to spend so much time on their way to the bakery. The intention is to give clients the pleasure of placing their favorite meal orders in the comfort of their own homes[30]

And, Online Ordering System (OOS), The Internet has altered not only the social interaction pattern but also the corporate and economic interaction patterns in this rapidly evolving world. Online ordering systems, or OOS for short, are sophisticated organizational-technical systems designed to enable the processes involved in creating, altering, sending, controlling access, and delivering orders. It offers online services that let users browse for products, make orders, and purchase goods and services via the Internet. Therefore, to sell their items, the merchants would not need to own or rent a physical site. Customers may order cakes anytime, anyplace, and without having to waste time traveling to the bakery and waiting in line to place their orders, demonstrating the flexibility of this system [30].

While for the supporting activities are Kitchen, the kitchen is the busy place at the bakery. The bakers need to prepare the ingredients, bake, knead the dough, also make sure the bread display is always full so the customer would not wait too long to have the bread. The store supervisor needs to maintain the food stock and communicate with the baker about the food availability.

Next one is Marketing/Sales, to promote the bakery, marketing and sales hold an important assignment to make the marketing program every year, define the target for customer, designing an eye-catching advertisement can help to reach out the customer and interest the customer to come to the bakery or delivery online. Through digital marketing [31], Businesses can give better client satisfaction and have access to more efficient CRM technologies. According to [32], there are five determinants of loyalty identified by Reichheld and Scheffer (2000):

Quality customer support, On-time delivery, Compelling product presentations, Convenient and Reasonable price shipping and handling, also Clear trustworthy privacy policies.

Moving forward to Finance/Accounting, work to record the financial statements of customers, especially for reports income from bakery every month, recap the expense for buying the raw material, operational expenses, etc. Preparing the annual bakery budget data collection for various needs.

The last one is Warehouse, Suisse Bakery continues to manage its business processes manually, utilizing several traditional procedures such purchasing raw materials based only on customer orders, which frequently results in mismatches. Between the required raw resources and the output at the point of production. Subsequently, there is still no unique recording made during the production phase, which encompasses the utilization of raw materials and the outcomes of finished items. As a result, after production is completed, the raw material calculations frequently contain inaccuracies. The procedure for reporting the distribution of manufactured goods presents another issue [33].

Next step is defining the business process parts that are including the details of each business process that can be seen in the use case diagram below (see Figure 7).

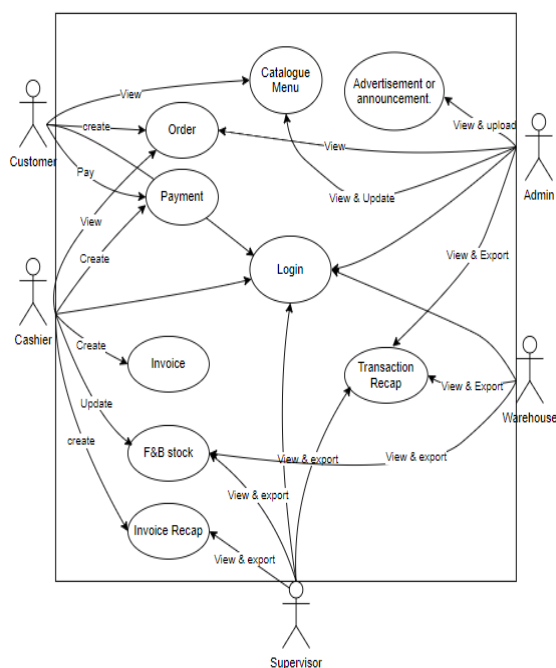


Fig 7. Use Case Diagram Business Process

The use case diagram above consists of five actors that are involved in the business process[34], they are Supervisor, cashier, customer, admin, warehouse. They all can login into the Bakery management system. The use case diagram covers all the main activities and supporting activities as seen in figure 6. The supervisor has access to manage the

whole selling and buying activities, which is to view and export the data from transactions recap, invoice recap, food, and beverage stock. The data which has been exported can be used to make a report to the manager or to analyze and make forecasting for future transactions. Cashier has access to view the order from customer, and then create the bills/payment for the customer to pay, create invoice, updating the stock, and recap the invoice routinely. The customer also can view the catalogue menu to choose the food and beverage they want to order, after that they make an order through the system, after bills are released from cashier, they can do the payment. The admin has access to routinely updating the catalogue menu on the system, also upload the announcement and advertisement with the new one, so customer will always get up to date for the information. Admin also can view and export the transaction recap to report to the supervisor. The last is warehouse, they can view and export the food and beverage stock on the system so they can prepare to order the raw materials to the supplier. They also can view and export the transaction recap to compare and adjust the stock and selling data [35] Because bakeries are in areas that are associated with the food and beverage business, and because there is a possibility of physical damage or loss, cloud architecture was selected over on-premises design. Their computer solutions may be scaled to meet their needs thanks to cloud-based design. The bakery can reduce its computer resources to increase efficiency during the weekdays or at night as fewer people use the system to place orders than they do on the weekends and in the morning. Additionally, this method makes the workplace flexible. Due to the cloud's ability to keep all data, both the bakery and its customers can conduct business from any location, particularly when they are unable to visit the bakery. With all these benefits, cloud-based architecture has the potential to boost output.

Figure 8 shows the cloud-based architecture. Cloud architecture is preferred over on-premises architecture because the bakery is a public place and there is concern that there may be damage or loss of property.

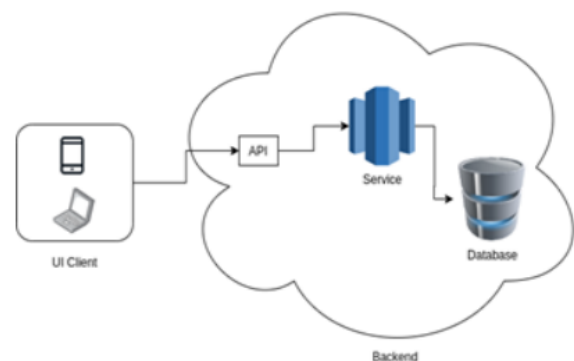


Fig 8. Infrastructure Architecture-Based Cloud Computing

Thanks to the cloud-based architecture, it is possible to develop IT solutions according to its needs. When the bakery is closed or out of operational working hours, customers cannot order through the bakery management system, so the bakery can reduce IT resources to operate more efficiently. This solution also allows for the creation of a flexible workplace. Because all information is stored in the cloud, admin and customers can continue to operate from anywhere, especially when unable to come to the store. With all these benefits, cloud-based architecture can increase productivity.

Business Function	Current business process for Suisse Bakery	Bakeroo system	Proposed framework
Product ordering	Walk-in and telephone orders	Digital order management	OOS
product catalog	Manual printed information	Digital catalog	Digital catalog integrated with bakery's social media
Inventory control	Manual stock record	Inventory management module	Cloud-based inventory integrated with sales and warehouse
Financial Reporting	Manual recap and report	Standard operational reports	Real-time cloud reporting
Delivery management	Manual coordination	production-oriented workflow	Delivery integrated with ordering process
Data Access	Location - dependent	Cloud access available	Fully cloud-integrated architecture
Business process alignment	Existing manual workflow	Generic bakery workflow	Customized to Suisse Bakery operations

Fig 9 Comparative analysis of business process capabilities

On Figure 9, compares the existing operational environment of Suisse Bakery, the Bakeroo bakery management platform, and the proposed cloud-integrated framework. The comparison shows that Bakeroo provides various digital management capabilities including inventory management, workforce management, production monitoring, and food safety management. However, Bakeroo functions primarily as a generic bakery management application. In contrast, the proposed framework was developed based on field observations and interviews conducted at Suisse Bakery and therefore reflects the specific operational requirements of the organization. The framework not only introduces digital tools but also redesigns business processes through the integration of online ordering, social media marketing, inventory control, delivery services, financial reporting, and cloud computing infrastructure. Consequently, the contribution of this research lies in providing a structured business process redesign framework that aligns cloud technology adoption with organizational needs.

Area	Existing Condition	Proposed Condition	Expected Impact
Ordering Process	Manual order recording	Automated online ordering	Faster order processing
Inventory Monitoring	Manual checking	Real-time inventory visibility	Reduced stock discrepancies
Reporting	Manual compilation	Automated reporting	Improved managerial decision-making
Customer Reach	Physical store only	Social media and online ordering	Increased market reach
Data Management	Separate records	Centralized cloud database	Better data consistency

Fig 10. Expected improvements

Figure 10 presents the expected operational improvements resulting from the proposed cloud-integrated business process redesign framework. The comparison indicates that several operational activities currently performed manually at Suisse Bakery can be enhanced through process automation and cloud-based integration. In the ordering process, manual order recording can be replaced with an automated online ordering system, which is expected to accelerate order processing and improve customer convenience.

Furthermore, inventory monitoring can be improved through real-time inventory visibility, reducing stock discrepancies and enabling better control of raw material availability. The proposed automated reporting mechanism is also expected to reduce the time required for report preparation while supporting faster and more informed managerial decision-making. In terms of customer engagement, the integration of social media and online ordering channels may expand market reach beyond physical store visitors. Finally, the use of a centralized cloud database is expected to improve data consistency by eliminating fragmented records and providing a single source of information across business functions. Overall, the proposed framework demonstrates the potential to enhance operational efficiency, information accessibility, and organizational scalability in support of digital transformation initiatives for traditional SMEs

V. CONCLUSION

It shows that business process redesign is necessary for cloud adoption and digital transformation in traditional small and medium-sized organizations (SMEs). Analyzing a manual, fragmented and non-integrated bakery setting demonstrates that digital technology alone is inadequate for transformation. Essential and supporting business processes must be redesigned to ensure that cloud-based technologies meet actual operational requirements and organisational competences.

The proposed conceptual framework contributes to the literature on digital transformation/business process management by making business process redesign a precondition for cloud implementation and not a result. The methodology demonstrates how value chain analysis & use case modeling of cloud-based systems can enhance process efficiency, data interoperability, flexibility and scalability with respect to restructured processes. All these operational enhancements bring great organizational benefits in terms of refined managerial decision-making improved service quality and organisational readiness for adjusting to changing demand conditions - especially in the food and beverage sector.

This study offers a methodical approach for traditional SMEs moving towards cloud-enabled activities while preserving business continuity. Managers and practitioners are advised to prioritise process analysis and redesign before investing in

digital infrastructure to gain maximum benefits of cloud technologies. Though confined to one qualitative example, this study offers a general transferable framework applicable to many SME industries. Later research might extend this study with quantitative or mixed methods to empirically validate the framework across sectors and organisational settings.

Its qualitative single-case design constrains generalizability of findings to other SME sectors. In addition, operational enhancements are derived from process analysis instead of quantitatively measured. Later study may empirically support the proposed paradigm through quantitative or mixed method approaches across SMEs. Further longitudinal studies could explore whether business process reform enduringly impacts cloud adoption and organizational performance. Opening this framework to other industries/adding new technologies such as analytics or artificial intelligence is one possibility for future research.

In this study we see how business process reform is needed to make cloud adoption/digital transformation work in traditional SMEs. The research used Suisse Bakery as case study to develop cloud-integrated business process redesign methodology to connect operational operations to digital infrastructure. Proposed framework links customer ordering / inventory management financial reporting / marketing and delivery services in a centralized digital environment via value chain analysis / use case modeling and cloud architecture design. They enrich the literature on digital transformation and business process management by addressing the problem of business process redesign/cloud computing not being sufficiently incorporated in conventional SMEs. The report says that cloud adoption adds organizational value when accompanied by restructured business processes for operational / data interoperability / process visibility / scalability / managerial decision making.

But despite all these developments this research is constrained by many things. It is a qualitative single-case study, which limits generalizability of results to other SME industries/organisations. Its suggested framework was designed at design level and has not been empirically evaluated in full system implementation/performance assessment. Further study with a quantitative or mixed method approach in other SMEs and industry sectors should confirm the framework. Future system development may include business analytics / artificial intelligence / demand forecasting / customer relationship management / real time supply chain monitoring / data driven decision making. Longitudinal studies are recommended to assess if cloud-integrated business process redesign has lasted effects on organizational performance / innovation capacity / digital transformation maturity.

AUTHOR CONTRIBUTION

Yulyanty Chandra: Conceptualization, Data Curation, Formal Analysis, Funding Acquisition, Investigation, Methodology, Resources, Supervision, Validation, Visualization, Writing–Original Draft Preparation, Writing–Review and Editing; Lorio Purnomo: Formal Analysis, Methodology, Writing–Original Draft Preparation, Writing–Review and Editing.

DATA AVAILABILITY

<https://doi.org/10.5281/zenodo.18347335>

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