Business Process Development: Integrating Best Practices

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Abstract

This article explores the process of incorporating the best practices embodied in different ICT management frameworks such as ITIL and COBIT into the development of business processes and their successful management. Business processes development and their management need to be regarded as the integration of various practices and components that interact with one another directly and indirectly to ensure that they achieve the organisational objectives. This research followed a qualitative research process. Unstructured interviews were used to collect data and the research revealed that there is a need for effective, well developed and managed business processes in organisations (especially in the current competitive business environment). Business processes create harmony and ensure control of different actions and activities of different stakeholders, either internal or external to the organisation to ensure quality products and services are delivered to customers. The study also found that effective business processes can be developed only if the organisations apply tried and tested best practices and principles and consider different environmental components that interplay during the development and management of these business processes. This includes a better understanding and mastering of factors such as the vision, mission, objectives, and the organisation's stakeholders. The selection of proper practices and the adaptation of proper management tools and experiences from different frameworks is another

point considered as important. It is also prudent to establish proper measurement units (such as KPAs or KPIs) to assess the performance of business processes and proactively develop strategies to deal with challenges such as requirements.

Keywords: Business process development, ITIL, COBIT, IT service management, Information systems

Introduction

Business organisations rely on different factors to achieve high performance. These factors include resources such as financial, technological, human, and the processes followed to achieve specific outcomes. Chief among this list is technological innovation, especially in the IT field, which has always positively influenced the operations of business organisations.

Rainer and Turban (2009) describe the era from year 2000 as being driven by globalisation 3.0. This was characterised by global business environment reproached by different flatteners and the Web-based platform. Even if technology has influenced the operations of business organisations, business processes are still valuable as they translate the activities that are implemented using technology into actions. This observation is the same from manufacturing to the service organisations, profit-makers to not-for-profit, and government departments in such a way that without better processes customers become dissatisfied.

According to The Society of Management Accountants of Canada (2000), business processes have become more important as customers' expectations are increasing and there is a need to become focused on providing customer value. Simultaneously, time-based competition (shorter planning cycles, shorter lead-times, shorter product development cycles, shorter product life cycles are becoming prevalent. Many enterprises are not ready to meet the concurrent demands of customer-focused, time-based, and low-cost competition because their key business processes are poorly structured.

Business processes are seen as an inherent part of doing business in the current global economy. That is, although processes will chiefly

differentiate between the competitive forces in the networked economy, they will be deeply integrated into business itself. Processes are critical components of almost all types of systems supporting enterprise-level and business-critical activities (Sheth *et al.* 1999).

Most business organisations that operate in the network economy depend on IT to be successful. If processes and IT services are well integrated and implemented, managed and supported in the appropriate way, the business can achieve success, suffer less disruption and loss of productive hours, reduce costs, increase revenue, improve public relations and achieve its business objective (The IT Service Management Forum, 2007).

Organisations operating in the current networked economy rely on IT resources to conduct their businesses. Managing IT resources and integrated processes require better understanding and application of best practices such as those provided in the ITIL and COBIT frameworks. Therefore, managing IT processes infers a direct management of business processes as IT infrastructure integrate business processes or translate business activities into IT infrastructure.

Mentioning the importance of frameworks, Violino (2005) notes that ICT has become increasingly automated, more companies are embracing best practices and procedures outlined in formal ICT frameworks. At stake are service quality, security, regulatory compliance and other increasingly important strategic corporate goals. While there is some degree of duplication among the frameworks, there also exists a greater degree of complementarity than overlapping. Many companies use more than one framework in managing their business entities and operations.

Due to the continual changes in the business environment and customers' requirements for service speed and flexibility, and increasing competition in the market, organisations are using different strategies to ensure that they provide value to customers and are ahead of their competitors. Therefore, the organisations rely on effective business processes as one of the strategic tools to achieve this market success.

The main question looks at how business organisations in South Africa use ICT management frameworks to achieve success in the development and management of business processes. In this article, different best practices are investigated and included in the development and

management of business processes by applying a formal research methodology. The rest of the article is as follows: In the next section a brief literature study is given, then follows the methodology, the results and a conclusion.

Literature Review

According to SearchCIO (2008), a business process is a set of coordinated tasks and activities, conducted by both people and equipment that will lead to the accomplishment of a specific organisational goal. A business process achieves a goal that the business cares about. This is called the output of the process (Gabhart & Bhattacharya 2008).

As business organisations operate in different industries with different requirements, their processes vary according to what they deliver. Interfacing (2008) regard business processes as methods, steps and activities performed to provide a service. Some examples of these processes include, filling a customer order, claims handling in an insurance company (Hurwitz *et al*. 2009), and admitting a patient in a hospital. Note that a business process is not automated by definition. It might indeed require manual participation or intervention. But the gain is efficiency, which comes when processes are automated from end to end, although at times this isn't always possible. Effective business processes lead to innovation, allowing companies to do business differently as compared to its competitors in the market.

Business process management (BPM) is an approach for achieving business goals, coordinating the end-to-end processes of firms, establishing best practices, and furnishing software, such as in an automated business process management system (BPMS), to describe, analyse, and enhance the efficiency of the processes against business goals (Lawler & Howell-Barber 2008). Mainly, BPM deals with definition and optimisation of business processes (Gabhart & Bhattacharya 2008).

According to Gabhart and Bhattacharya (2008), BPM covers the following aspects related to the definition of a business process:

- Define the business process, which involves modelling the process where it moves from As-Is process discovering weaknesses through to the To-Be process.

- Establishing business process, which will involve the training of staff and selection of appropriate software.

- Putting the process into practice.

- Monitor and control the process to identify the performance level (through the use of alert system or periodic reporting system).

- Improving the business process where needed.

- Business Process Development (BPD) refers to the activities related to the design, modelling, development, implementation of business processes and aligning them with the business goals to achieve the organisational specific outcome (SearchCIO 2008).

To ensure that their services and products rendered in a global economy meet the quality requirements, organisations are required to ensure that their business processes are effectively managed and integrated in their strategies. This is done with the objective of ensuring that customers are satisfied in all spheres by minimising the time, cost, increasing the quality of products or services and also the channel through which the products and services are to be delivered.

In the words of Sheth *et al*. (1999), speed and distribution will characterise every aspect of most business and organisational undertakings in the current networked economy. Companies distributed over space, time, and capability will have to come together to deliver products and solutions in the global marketplace.

As global business operators, organisations are operating in the chain made of different role players, which include suppliers, contractors, customers, government, and other different stakeholders that require services and products supplied according to specific levels of standards. To serve all these constituencies of the system, organisations need not only knowledge capable technologies, but also effective processes that successfully link the activities of the organisations to their internal departments and external stakeholders.

Hurwitz *et al.* (2009) note that a business is about the products and services it offers to its customers including the processes that make it unique in how it delivers value. This implies that business organisations exist in order to provide services and products to their customers on time, at affordable prices, and in good quality. These are also the outcomes of business processes. The latter exist only through well managed BMP principles, which (BMP) deal with definition and optimisation of business processes (Gabhart & Bhattacharya 2008). Therefore, the existence of well managed BMP contributes to the improvement of business productivity and achievement of business objectives.

In general, it can be said that business process management is about: organising the business around processes (set of activities) and focussing on customer satisfaction, clarifying and documenting processes, monitoring progress performance and compliance and lastly continuously identifying opportunities for improvement. To achieve greater performance and efficiency with business processes, there is a need to look at the following factors as mentioned by Carter (2007):

- People: having the right people, motivated and performing is naturally a key requirement to performance.

- Technology: providing the people with the right tools to do their jobs well is also vitally important. Computer technology has revolutionised the office environment, and with web technologies and mobile computing we are all becoming much more efficient for longer**.**

- Process: business processes integrate different organisational functions. A sales process may start with marketing and production, it may involve accounts, involve sales (close the deal) then it can go back to accounts. Production's input may involve the supply chain. Therefore, the sales process cannot just involve accounts receivables, but accounts payable as well (Carter 2007).

Smith and Fingar (2008) noted eight characteristics that distinguishbusiness processes from other elements of the business. Businesses are large and complex, dynamic, widely distributed and customised across boundaries, long-running: a single instance of a process such as order to cash or develop product may run for months or even years, automated, both business and technical in nature, dependent on and supportive of the intelligence and judgment of humans, and lastly, difficult to make visible.

Business process management allows the organisation to map the entire cells of the organisation as activities, procedures, steps, resources and more. It creates a model for management, allowing organisations to manage their activities just as they manage the people performing the activities. More than that, BPM allows process managers to enact specific improvements on the company structure with fast implementation, ensuring the most efficient change management (Interfacing 2008). Interfacing (2008) also describes a Process Management Lifecycle that is made up of five activities namely: Process Design, Process Modelling, Process Execution, Process Monitoring, and Process Optimisation.

According to Sparx Systems (2008), a business process contains the components such as goals, specific inputs, and specific outputs. It also has the characteristics such as consumption of resources and has a number of activities that are performed in some order, may affect more than one organisational unit, creates value of some kind for the customer, and the later may be internal or external.

Sodan (2008) mentions that improved processes mean improved business. Therefore, effective and flexible business processes help the organisation achieve improved productivity, provide a higher level of customer service, obtain flexibility in resources usage including staff, respond more rapidly to new opportunities, raise the morale of staff through better work environment, and deploy new technologies without disruption.

There are many best practices from a variety of frameworks that can be included in business process development and management. Examples are ITIL and COBIT, the two selected here because of their advantages as shown in the Table 1 below.

Table 1: ITIL and COBIT Frameworks

Framework	Benefits
ITIL	ITIL supports IT governance by providing a framework to ensure that: • IT is aligned with the business • IT enables the business and maximises benefits • IT resources are used responsibly • IT risks are managed appropriately • A view of what IT does • Ownership and responsibilities, based on process orientation Shared understanding amongst all stakeholders, based on a common language.
Source: Best Management Practice (2007).	
COBIT	COBIT supports IT governance by providing a framework to ensure that: • IT is aligned with the business • IT enables the business and maximises benefits • IT resources are used responsibly • IT risks are managed appropriately • A view of what IT does • Ownership and responsibilities, based on process orientation Shared understanding amongst all stakeholders, based on a common language
Source: IT Governance Institute (2007).	

Research Methodology

Given the necessity to interact with the participants and observe the best practices they include in the development and management of business processes, the qualitative research method was adopted for this research.

With reference to collection of best practices from different organisations from different industries, the multiple studies were selected as a strategy for this research as the researchers explored in depth the concept and practice of BPM as it is practiced in different organisations. Henn *et al*., (2009) note that cases are units of investigation. They (cases) may also refer to other units of analysis, including organisations (schools, businesses, and political parties), localities, regions, or countries. The advantage of multiple cases to this research is to improve data reliability and generalizability of the study (Gray, 2009). This is because different participants (six cases as in this research) give their perspectives to the research question.

Data collection was accomplished partly by reviewing previously published materials and later, semi-structured interviews were conducted with experts from different business organisations. A recording device in some cases (portable cellular phone, Sony Ericsson W200i) was used to capture the data. The data analysis included some techniques from the family of grounded theory techniques. This selection relied on the fact that grounded theory method is based on the principle of building theory based on the data collected (Saunders *et al.* 2007:142) and this is directly linked to the qualitative research process (Teddie & Tashakkori 2009; Gray 2009). In this study, the researchers first collected data before developing any theory to answer the research question.

Purposive sampling technique was used to select participants. It was ideal to select participants that have knowledge of both business processes and management frameworks, namely ITIL and COBIT. Table 2 below provides an overview of the organisations that participated in this research study. For confidentiality purposes, alphabetical letters were used to denote the official names of participants. These are labelled Candidate A, through to F.

Table 2: Research participants targeted sample

No	Participants	Industry	Data collection technique
1	Candidate A	Consulting	Semi-structured interview (recorded) interview

2	Candidate B	Transport	Semi-structured interview (recorded)
3	Candidate C	Consulting	Semi-structured interview (recorded)
4	Candidate D	Consulting	Semi-structured interview (recorded)
5	Candidate E	Mining	Semi-structured interview (online)
6	Candidate F	IT systems development and consulting	Semi-structured interview (online)

Table 2 lists the six candidates from different companies that participated in this research study. All six organisations have either been involved in the BPM practices for internal use or as consultants and have experience in the practice of ITIL and COBIT frameworks in the development and management of business processes.

Necessity for the Integration of Best Practices in Business

The summary of the findings for this study is provided from both literature review and the interaction with the participant's perspective.

From The Literature Reviewed

From the literature reviewed, no business can produce adequate outputs or any result without proper business processes. Gabhart and Bhattacharya (2008) characterise business process as a conductor in an orchestra music choir and ask the service providers to perform specific tasks. In this way, services become the building blocks of a business. Hurwitz *et al*. (2009) note that a business is about the products and services it offers to its customers. It is also about the processes that make it unique in how it delivers value.

It is therefore clear that business processes are core to the internal functioning of any business and to its interaction with stakeholders in the value chain. Without them, it is difficult to manage a business.

Business processes are heavily linked to their industry and the purpose for which they are developed (Bieberstein *et al*. 2008; and Hurwitz *et al*. 2009:65). For instance, in an insurance company, claims handling is a business process. In a hospital, admitting a patient is a business process. In a furniture store, selling a cabinet is a business process. Note that a business process is not automated by definition. As the business processes are different, so are the frameworks used to develop and manage them (Holtsnider & Jaffe 2007; Jiejin 2009). It was noted that business processes pose different challenges during their development and management. Some of these challenges as stated by Rickayzen *et al*. (2005) are:

- Lack of adequate information, which is the core input into the decision making process of every organisation.
- Clarification of source and destination of knowledge in process.
- Flexibility during the operation time to address cases of emergency.
- Application of best practices during the operation of process once it is operating.
- Ensuring that employees spend more time producing than learning how processes are interacting.

Quality means different things to different people. For this research study, the quality in business processes is taken from ITIL Survival (2006) that states that ITIL is based on the need to supply high-quality services with an emphasis on customer relationships. ITIL's philosophy is also based on quality systems, including the ISO-9000 series and Total Quality Frameworks, such as that of the European Foundation for Quality Management (EFQM). All the service delivery and support processes, from the Service desk through to Service Level Management (SLM), inter-relate to provide a seamless flow of information that helps to ensure on-going service quality. This means that by following the ITIL methodology and other frameworks such as COBIT, a company is indirectly abiding to the standards of quality management and some best practices.

From The Empirical Findings

The purpose of the empirical approach was to collect the evidence through

interviews (four out of six were recorded and two candidate e-mailed their answers given their time that could not accommodate face-to-face interviews) with participants from various industries on the practices of business process development. This approach was intended to confirm and supplement the theory as presented in the previous section and answer the research question using empirical evidence.

Using data analysis techniques, codes representing the key words from the respondents' answers were highlighted, and they represent the participants' summative views to each interview question. These were categorised to remove duplication and are presented in Table 3 below.

Table 3: Interview data summary

Unit of analysis	**Code categorisation**	**Conceptualisation**
Importance of business processes	• Standard and create understanding • Vision and mission • Enable Inputs, interrelated activities, and outputs to predict outcome • Certification • Documentation • Series of action and instructions with outcome • Create harmony and consistency • Proactive and avoid waist • Products and services • Key driver task that adds value to value chain • Meeting requirements • Guideline for the business • Best practice	Business processes are a set of actions and instructions that are documented to create harmony and standard with a purpose of enabling inputs, coordinating activities to predict outcomes (products and services) that enable the organisation to achieve its mission and vision with intent to meet the requirements of its stakeholders (internal and external).

Framework(s) used to develop business process	• ITIL adapted • BMC remedy • SAP • ISO 9001:2000 • COBIT what • ITIL how • IDF0 • PRM-IT and IBM Services Model • SDLC • PMBOK process	There are different frameworks used for the purpose of developing business processes: • ITIL and COBIT are the most used frameworks and complement each other and can be used in different industries and businesses. • Two or more frameworks can be combined according to needs. • The adoption of framework is based on company's needs, industry, and level of maturity. The frameworks used are: • To facilitate reuse • To meet customers (internal and external) needs • To ensure alignment between processes and vision, mission, business objectives, and governance in services delivery • According to the needs of the business

		and can be adapted according to the level of the organisation's resources.
Specific characteristics of a business process	• Document processes • Explain people and soft skills and workshop • Management support • Know business and activities. • Customer needs • Best practices • Inputs, outputs, and controls. • Standards • Infrastructure • People • Flexibility to accommodate changes • Common goal • Clear understanding	These categorised codes ensure that when engaging in business processes development, the developer needs not just the technical knowledge, but also a fair degree related to the understanding of business and its goals, its environment, combined to people skills or soft skills.
Challenges experienced during the business processes development and management and strategies used to manage them.	• Misalignment due to lack of understanding: conduct Workshops and ensure stakeholders buy in and document the steps • Access to infrastructure • Engaging people: Workshop the people • Resistance: communicate, use soft skills, and technical training, engage with the people • Change management	The challenges experienced during the development and management of business processes are broad and depend on individual business situation as each business is different to another due to each structure, industry, and composition of its resources. The strategies used to deal with these challenges are also

	• Benchmarks and workshops • Phased deployment • Financial • Depend on business situation • People feel obsolete as knowledge being documented	different, some challenges are common such as communication, while others are specific such as financial.
How do you ensure quality?	• SHEQ to Audit • Update documents • ITIL certification • Quality management system • Be proactive • Continuous audit • Meeting needs • KPAs or KPIs measures • Quality policies • Quality check • Training people	Quality means different things to different people and it is at the heart of each process development. As in this case, it is based mainly on the measurable KPAs at the beginning of process development. But some companies develop their own policies or rely on certification institutions for quality standards.

As mentioned earlier, ITIL and COBIT frameworks are among the best practices in business processes development and management. They provide a guideline and align processes with business strategies, ensure that business structure integrates with designed processes (IT Governance Institute, 2007a). ITIL is suitable to assist during process development through the following components:

- ITIL standard process methodology: this component is based on identifying high-level business objectives, identify the gap in business process, redesign the business process to close the gap, design appropriate application, then implement the new application.
- ITIL lifecycle diagram: this is the heart of ITIL processes design and management. It starts with the strategic component, moves to the design, transition and operation to the continual process improvement.

This component helps in the creation of conceptual model for business process development and management as it matches process design phases. But as a collection of best practices, ITIL improves the process development activities.

- ITIL in the development of business process can be subdivided into design and deployment components. Where the former will focus on identification of business process, modelling and development, the later component focuses on management and improvements during the operation.

COBIT's contribution to process development is based on its focus areas, which are strategic alignment, value delivery, resource management, risk management, and performance measurement (IT Governance Institute, 2000). All of these areas ensure that business processes once developed, deliver value to business, and risks related to interruptions are minimised or totally removed.

Representing the BPM Cycle

After a critical review of theory on business process management (BPM) and review of participating organisations understanding and practices on the BPM, the researchers have understood that business processes operate in a dynamic environment with different requirements that need to be managed to ensure that they are developed according to best standards and help the organisation to achieve its objectives.

To arrive at the stage of business process management, business processes must be developed, and the development itself must be in relationship with business objectives, strategies, and environment. The above leads the researchers to develop Figure 1 to explain the environment that interacts with the business processes (cf. below).

According to Figure 1, the environment of business processes can be described in the following way:

- The cycle starts with the understanding of why the business exists through its vision, mission, and business objectives. This is required and has to be done by any person engaged in the business process

development despite his or her technical knowledge, but with a good understanding of the organisational operations.

- Understand the people (including the users, management, contractors) who deal directly and indirectly with the business and its processes.
- Evaluate the needs of the business and the stakeholders to which you are going to apply the framework and related technologies to develop business processes. This is to enable the adaptation of the framework to suit the needs of business stakeholders.

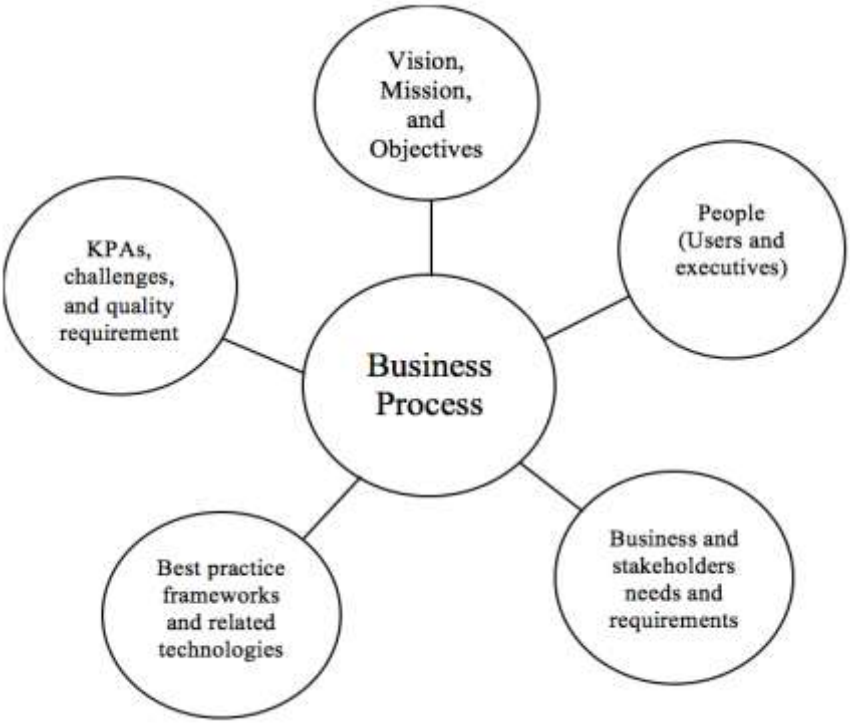

Figure 1: The environment of business processes

- Best practice frameworks are the tools, they are helpful only if you use them accordingly and apply them to correctly identified needs. After the understanding of business and its people, you can then contemplate the tool or framework that can be matched to its way of doing business and resources.

- Develop the key performance areas (KPAs) that are going to be used to measure the success of the business process. These KPAs can be based on people, technology, or any other resource that apply to the business process, which can be financial resources. Understand also the challenges that can be faced during the development of business processes and quality requirements to develop strategies proactively to remove them or minimise their impact.

Figure 2: Value proposition

The reason for addressing the technological requirements in figure 2 above is because some participants mentioned the combination of tools such as SAP and BMC remedy suites of products during the development of business processes. In general, technological infrastructure of different forms

(such as Enterprise Resource Planning (ERP) and telecommunication facilities) play a critical role in the development and management of business processes. A discussion of the technological aspects of business processes is beyond the scope of this research.

Value of the Study

Business processes are the ones that drive all the operations of an organisation. As such, they need to be developed according to best standards and practices available in the market. Of great importance is that processes need to be developed once and well to avoid any disruption to services that are provided to clients. Working from the research question of this study which is restated here again as:

How can business organisations in South Africa use ICT management frameworks to achieve success in the development and management of business processes?

This research study has revealed that:

- There are several IT frameworks that are used in industry during the development and management of business processes. The choice of these frameworks is dependent on the type and size of the organization. Another point revealed herein is that it is expected of organizations to employ the use of best practices that are enshrined in these frameworks if they want to achieve success in the management of their processes.

- It is noted that industry experts regard the usage of ITIL and COBIT as the widely used frameworks in BPM. However, other frameworks are also important and the question here is of selecting what applies to the needs of the organisation as each framework and its roles are different.

- The researchers noted that participants' efforts in the use of these frameworks are directed to ensuring the creation of harmony and

alignment of business processes to technological infrastructure together with the overall organisational environment. This guarantees flexibility, and minimises organizational costs. As a result of effective management of business processes, the organisation improves its productivity and competitiveness and ensures that customers get value for what they are paying for.

Following the consideration of the importance of business processes and their management using ITIL and COBIT frameworks as presented in this article, it should not be generalised that all organisations operating in the networked economy should implement their business processes using ITIL and COBIT frameworks. This is because organisations are different in their objectives, sizes, structure, culture, industry they operate, products offered, employees skills level, and many other elements. It is their choice to select and adapt suitable tools to assist in the management of business processes and the measurement used to evaluate their quality and success.

One cannot therefore assume that the findings of this research can be generalised to all situations where any framework can be used in the management of business processes as different frameworks can be applied for different industries and different objectives.

Conclusion

Business organisations in today's highly competitive networked economy are competing based on different strategies. Some of them are financial, technological, innovation, quality of products and services, other organisations rely on the business processes that speed up the development and delivery of products and services to the customers.

The empirical study revealed that business processes are counted among the key strategic assets of the organisation. If the challenges affecting them are not addressed, the expected value from business processes cannot be experienced. Therefore, better address the development and management of business processes with best practice frameworks as identified in this study.

The most important concern with business processes throughout all the phases should not only be emphasised on the usage of the ITIL, COBIT or other frameworks, but need also to have a systematic view of the business and stakeholders needs, requirements and environment. The emphasis should also be on the identification of the most needed activities that need to be included in different phases of business processes. Ensure also that different challenges that can affect the development and management of business processes can be removed or managed to minimize their impact along the processes development and management activities.

Through effective selection of processes and frameworks that best support the organisation's objectives, the management of business processes should be made effective from the analysis, design, implementation, and throughout the continual improvement phase. All these strategies and best practices were identified to ensure that the organisation becomes flexible, effective, and well equipped to satisfy customers' requirements and can be adapted because of the dynamic environment in which they are delivering products and service changes continuously.

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