

Differentiating Factors of the Process Approach in Service Organizations: Case Study of a Training Service Company

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Abstract: The process approach is one of the most important practices to manage enterprises. However, a limitation in the literature concerns the factors that characterize this management approach in service enterprises. This study seeks to show the differentiating factors of the process approach in services industries, useful to understand business processes and their management in the organizations in this sector. Qualitative research through a single case study in a training service company was carried out by observation, interviews and the use of documentary evidence to identify the factors. Findings show six differentiating factors (organization nature, process nature, process inputs and outputs, process control, human resources, and staff roles) which were classified into three categories: organization, process, and people. This will be beneficial and of value to managers of the service organizations to understand business processes and their management in enterprises.

Keywords: Process approach, business process, service organization, service sector.

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1. Introduction

The process approach has been characterized as one of the best-known ways to the organization management, with its operation on the basis of systematic understanding and complexity. This tool is seen as a key for continuous improvement of business processes (Gazova et al., 2016) and is a management strategy where activities are understood as interrelated processes (Ideagen, 2016). The process approach recognizes that work within the organization is done to achieve some goal (Hernández et al., 2018).

The process approach is better recognized in the literature as Business Process Management (BPM). It is a management concept that has been presented as a systematic identification, measurement, evaluation and improvement of processes (Kowalik and Klimecka-Tatar, 2018). Taking this into account, one of the challenges in many organizations is the creation of practices to improve and achieve Total Quality Management (TQM). According to Prajogo (2005), one of the practices to achieve TQM is BPM. TQM is considered a process and quality management philosophy (Bhat and Fernandez, 2010) that includes different approaches, where BPM plays a huge role (Stravinskiene and Serafinas, 2020).

BPM is often regarded as a best-practice management principle, defined as a series of objectives for managing and

improving business processes in the organizations in order to achieve or sustain competitive advantage and organizational compliance (Van Looy and Van den Bergh, 2018; Ponsignon et al., 2012; Hung, 2006). Hence, it is necessary to identify the elements to understand the context of the kind of management that can lead to a suitable design and the effectiveness in the implementation.

Furthermore, BPM is a methodology that has focused on studying a continuous flow for achieving not only the improvement and optimization processes but also the specific strategies to analyze the difficulties in activities and the actions that underlie the day-to-day operations of any organization. However, a lot of the studies about this management approach focus on manufacturing enterprises where business process tends to be manifested, understood, and easily identified compared to organizations in the service sector. Therefore, describing and studying the principal factors to adopt the process approach in service organizations, is of great value and importance. Prajogo (2005) did a comparative study about TQM practices in manufacturing and services organizations in which it is explained that TQM practices could be applied in any organization, regardless of the sector. This highlights that business processes, as a practice of TQM, in services are as important as in manufacturing companies. Nevertheless, critical factors about services operation and their processes are important to do so. In addition, it is particularly worth mentioning that service organizations should use BPM as a

management alternative not only for adopting total quality practices but also for its permanent performance.

Other studies have emphasized some differences between the service sector and manufacturing companies; (Lejpras, 2019; Wang et al., 2016; Aitken et al., 2016). These studies have been useful to identify some characteristics of the services but none of them mentions specific factors which enterprises could consider, bearing in mind the process approach in this sector.

Also, there are some fundamentals and principles about BPM, among which some can be mentioned: people commitment, organizational culture, managers or leaders, context, involvement, or people (Jeston and Nelis, 2008; Vom Brocke et al., 2014). The importance of this study lies in the fact that there is a gap in the knowledge due to the lack of studies that focus on describing differentiating factors or considerations in the service sector to understand the processes.

Service operation is more complex to understand, considering that it is no transportable or storable, and it is difficult to standardize (Lejpras, 2019); it is interactive, intangible and heterogeneous (Ongena and Ravesteyn, 2019) and it usually is co-produced with customers (Ettlie and Rosenthal, 2011). As a result, managers or people who execute a business process project can find it difficult to identify the elements of the processes and important characteristics in the enterprises' operation. In this sense, the main contribution of this study is to present factors of the process approach in a service enterprise. Identifying these factors is relevant in order to facilitate the identification of the processes and their management in projects of this type. Therefore, the aim of this research is to present the differentiating factors of the process approach, which were found in a service training company.

This work is structured as follows. Firstly, some theoretical elements are explained about the process, BPM, the practice of process approach in service and manufacturing organizations. Secondly, as a result, the differentiating factors of the process approach in service organizations are presented. Thirdly, the discussion is presented. Finally, the conclusions of this study are disclosed.

2. Literature Review

2.1. Process: Definition and Elements

A process is usually defined as a series of elements and actions that are aimed at achieving a defined purpose. This concept has been supported by many authors (Davenport and Short, 1990; Hammer and Champy, 1993; Armistead and Machin, 1997; Lindsay et al., 2003; Dumas et al., 2013; Kowalik and Klimecka-Tatar, 2018) over many years. Similarly, in more recent research, a process has been defined as a set of independent activities that are purposefully structured to deliver a specific output (AlShathry, 2016) or as a major element of the business that includes several activities and procedures (Alotaibi and Liu, 2017). Processes have a specific purpose that is to achieve business goals (Alotaibi and Liu, 2017) because they add value to the results (Hernández et al., 2016).

In general, business processes require inputs to achieve results. These elements are essential to the productive chain and can be events or any other trigger to other business applications or human actors (AlShathry, 2016). Hence, all these elements are important to understand activities, relationships, and connections in the operations. Nevertheless, they are different and can present some particularities according to the type of operation.

To sum the elements of a process, they are all illustrated in Fig. 1. Inputs, outputs, activities, and feedback can be observed, such as the elements of the process. All processes need elements that are the base of the production of a product or service. They are best known as inputs that, after passing through the production chain, will become results or outputs. Additionally, for process control, feedback is mandatory to represent specific controls and activities to monitoring the efficiency of the process.

2.2. Business Process Management (BPM)

BPM has been a very important practice to the organization's management since 1990 (Alotaibi and Liu, 2017). Ever since, there have been studies and practices in different kinds of companies and contexts. According to H. Hernández et al. (2016), business process management is useful to achieving an organization's mission.

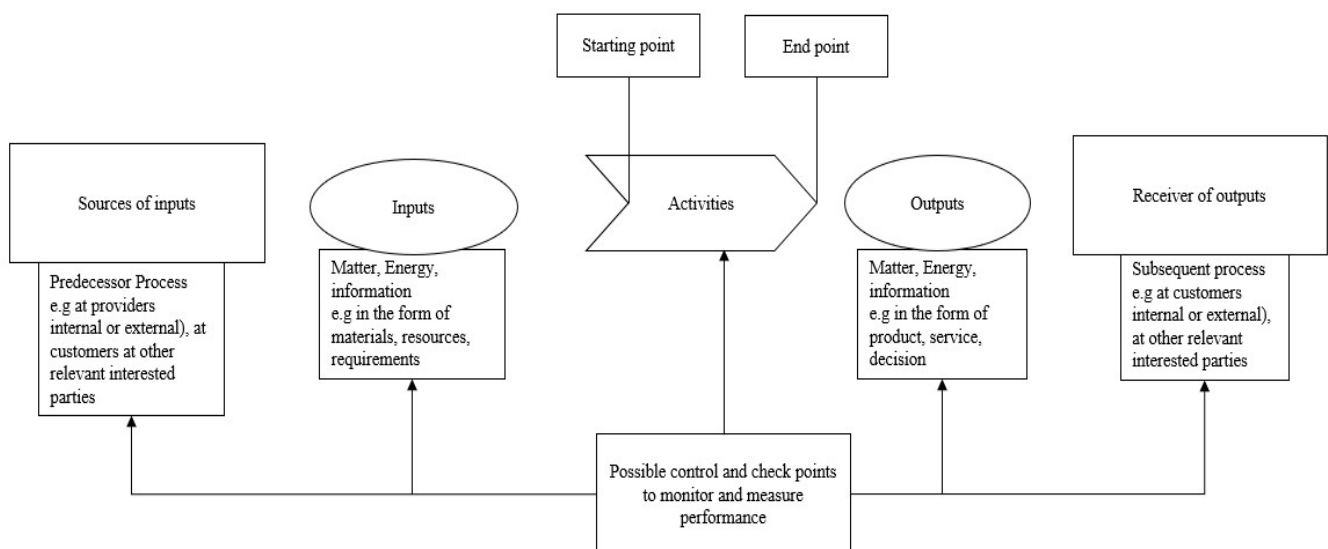


Fig. 1. Schematic representation of the elements of a process (Source: ISO 9001:2015)

BPM is a management discipline in which business processes are the main contributor to achieving the organization's objectives (Ubaid and Dweiri, 2020). Its importance resides in the effects on results, customer satisfaction and continuous improvement. This practice has focused on describing fundamental activities on enterprises and it is a structured approach to analyze and improve them (Zairi, 1997) and it is defined as a set of methods to analyze and improve processes (Castro et al., 2019; Ravesteyn and Atenburg, 2010). Additionally, Pérez (2004) describes that one of the principal criteria of BPM is that there is a commitment to the results and that each person in the organization works to achieve them.

2.3. Process Approach in Organizations: Manufacturing and Service Companies

2.3.1. Manufacturing companies

Manufacturing processes have been characterized by having tangible elements and physical production. Manufacturing production usually has a product that is easy to see and physical output can be stored before delivering to the customer (Hashem, 2019). For example, in the motorized industry, the result is tangible (a vehicle), machines are physical too, and elements which are introduced to the machine are visible. Regularly, production in manufacturing enterprises is considered heterogeneous because of the elements that they are part of. Furthermore, due to the production in manufacturing enterprises, there are common tools and process controls for continuous production (Huq and Stolen, 1998).

2.3.2. Service companies

It is necessary to express that there are diverse types of services. There can be services that use tangible elements during production, but there are others which do not, so all productive line is characterized because of intangible elements. Similarly, the result of services could be tangible or intangible. On the one hand, a restaurant offers a service whose result is a tangible product (food), but, in the end, people evaluate the service by not one but two elements: how they have been served and the quality of the food. On the other hand, there is a service, such as education and learning, whose result is totally intangible. Processes in services have a distinctive feature, which is the "intangibility" in the operations or resources that are part of them. This feature could be defined as an aspect in business processes that it is not identified or measured very easily. To underline this, another description of this term is highlighted by Morris and Johnston (1987). They claim that intangible elements are part of the processes and there are aspects that cannot be specified, except in very general terms, and which are normally concerned with the customer's reaction to some element of the process.

Services have intangible products because they are as an act or performance offered by one party to another and the performance is intangible (Bowen and Ford, 2002). Outputs on this kind of production are characterized by intangibility, inseparability and heterogeneity (Hashem, 2019). Also, the production needs an individual request from customers, so they are a series of intangible activities which are adapted to this request (Bowen and Ford, 2002). In the services, processes are the value to the customer and the customer's perception about them (Hashem, 2019). Not to mention that customers and producers are inseparable

during the delivery of the service (Yalley and Sekhon, 2014).

Although productive elements are commonly used in manufacturing, Kowalik and Klimecka-Tatar (2018) emphasized that services need to be treated as a process. From the perspective of the process approach, services must express all elements which are fundamental to achieve a result or product, whether it is intangible or not. After reviewing both manufacturing and service productions, Table 1 sums up their most representative differences.

Table 1. Differences between manufacturing and services

Characteristic	Manufacturing	Service
Product	Tangible	Intangible
Quality	Inherent to the product	Inherent to final service and people
Material	Regularly storable	No storable
Machine	Machinery	No real machinery Production based on people

3. Methodology

Qualitative research is done through a single case study (Yin, 2003) in a service company which is characterized by having an intangible production and result. The operation is focused on offering training services. From the theoretical elements of the business process, this research focused on identifying how business processes and the process approach were manifested in this service organization.

3.1. Data Collection

Qualitative research is based on the exploration and description where the data collection methods are not completely standardized or predetermined (Hernández et al., 2014). There was interaction with ten people inside the company (managers and employees) for approximately a year in order to obtain the information. This sample was selected according to the company size, which represents the total of the population. Techniques that were used in the research are described below.

3.1.1. Observation

The non-participant observation was used. It was carried out during the stay in the company period in which it was possible to analyze the context and operational dynamic. At the beginning of the research, before the COVID-19 contingency, the author had the opportunity to visit the company's facilities, which consists of a little space where all employees and directors interact, so it was possible to hear some situations and observe the relationship between people and their functions.

3.1.2. Interviews

One of the main techniques to collect data was the semi-structured interview. Semi-structured interviews were aimed at all the members of the company (10 people). They were focused on understanding the operation, identifying and clarifying some specific aspects mentioned below:

- Characteristics and description of the processes
- Limits of the processes (inputs and outputs)
- Production cycle

- Roles, functions, and executed activities are executed by each person.
- Processes related to the customers and understanding internal relationships.
- Process control

The intention of the interviews was to find how to process approach and their elements were presented in the service operation. The interview guide is presented below (Fig. 2).

Interview guide to identify elements related to business processes	
Date: _____	Place: _____
Interviewed: _____	
Objective: _____	
Questions:	
1.	How the process management is carried out in the organization?
2.	Do you have an implementation method for the processes? Which?
3.	Do you recognize all the processes in which your job is involved?
4.	Are there performance indicators for the activities you carry out? ¿Which ones?
5.	Is there a method to improve and evaluate the processes compliance?
6.	Which resources do you need to do your activities?
7.	From whom do you need information to execute your activities?
8.	What are the important elements and relevant information for your operation?
9.	To whom do you give important or relevant information?
10.	Where do you register important or relevant information about the operation?

Fig. 2. Interview guide

3.1.3. Documentary evidence

The author had the opportunity to access the databases and information of the company where there were relevant data about the operation and the processes. Instructions and procedures of the processes were found. Eight processes were analyzed according to the operation in the company.

Additionally, registers and reports were accessed, where data about the operation were found. Those were so useful that it was possible to identify processes' elements since people used them to register specific information to the continuous flow of the operation and preparation of the service. Also, this information allowed to find operational controls. Table 2 sums the information found.

Table 2. Summary of documentary evidence

Type of documentary evidence	Total	Description
Procedures and instructions	49	Description of the activities and operation
Politics	9	Guidelines useful to identify important requirements
Registers	5	Essential information related to the preparation of the service
Reports	10	Operation control

3.2. Data Analysis

Data analysis strategy was done using field notes and triangulation of research methods. The first was used to write down situations, ideas, specific information, and their categorization. The analysis was carried out constantly during the research. A continuous comparison between the data collection instruments was used. The main objective to use comparison was the need to confirm situations and information. As it was mentioned in the description of each data instrument, observation was used to analyze the operational context, interviews to collect information with employees and identify their functions, and documentary evidence as support for previous information.

Data collection instruments were independently used. There was no dependency between each other throughout the research because the objective was the comparison between the results of them. Then, triangulation was used to analyze the results, which is an important technique for qualitative studies because it is a way of obtaining more complete and detailed data (Abdalla et al., 2018).

Interviews and documentary evidence were two techniques that were used during the entire period of the research since March 2020, the research was carried out remotely. Despite that situation, the contact with people and the access to the information was kept. Fig. 3 is presented to illustrate data collection methods, data analysis and the triangulation used during the research. In addition, Fig. 4 illustrates and sums the research methodology of this study.

4. Results

4.1. Differentiating Factors of the Process Approach in Service Organizations

Based on the information obtained, elements, which were identified such as differentiating factors, were grouped into three categories (organization, process, and people). There are no hierarchies in the presentation of these categories. They are only presented as a part of the key factors to understand and identify elements of the processes, needed to be managed in service organizations.

4.1.1. Organization

4.1.1.1. Organization nature

No transportable or storable service was observed in the company. It was found that the operation was concentrated on giving or receiving information from others, which was not necessarily physical. The final product was an intangible service, which is a "training," and it was delivered to the final customer. Most of the results and resources were originated from external or internal customers. The first is to whom the final service is provided, and they make the service request, and the second ones are those who carry out the operations and activities within the organization. Although the company was a small enterprise, it had processes to analyze.

The main characteristics of the organization nature are summarized below:

- Service was focused on offering an intangible output
- There were no tangible elements to the production. Production was based on people.
- No tangible resources as inputs to the service production.
- The service company analyzed for this research is a small enterprise.

4.1.2 Process

4.1.2.1 Process nature

This section presents eight analyzed processes in operation; they were characterized by being intangible because of their nature. Different types of activities related to financial issues, customer service, sales, technology, purchasing, and administration were found to be of central value in operation and necessary to understand the nature of the process. In addition, some of the processes had a particular relation to the customer. Table 3 describes the processes in which intangibility and no physical elements were identified.

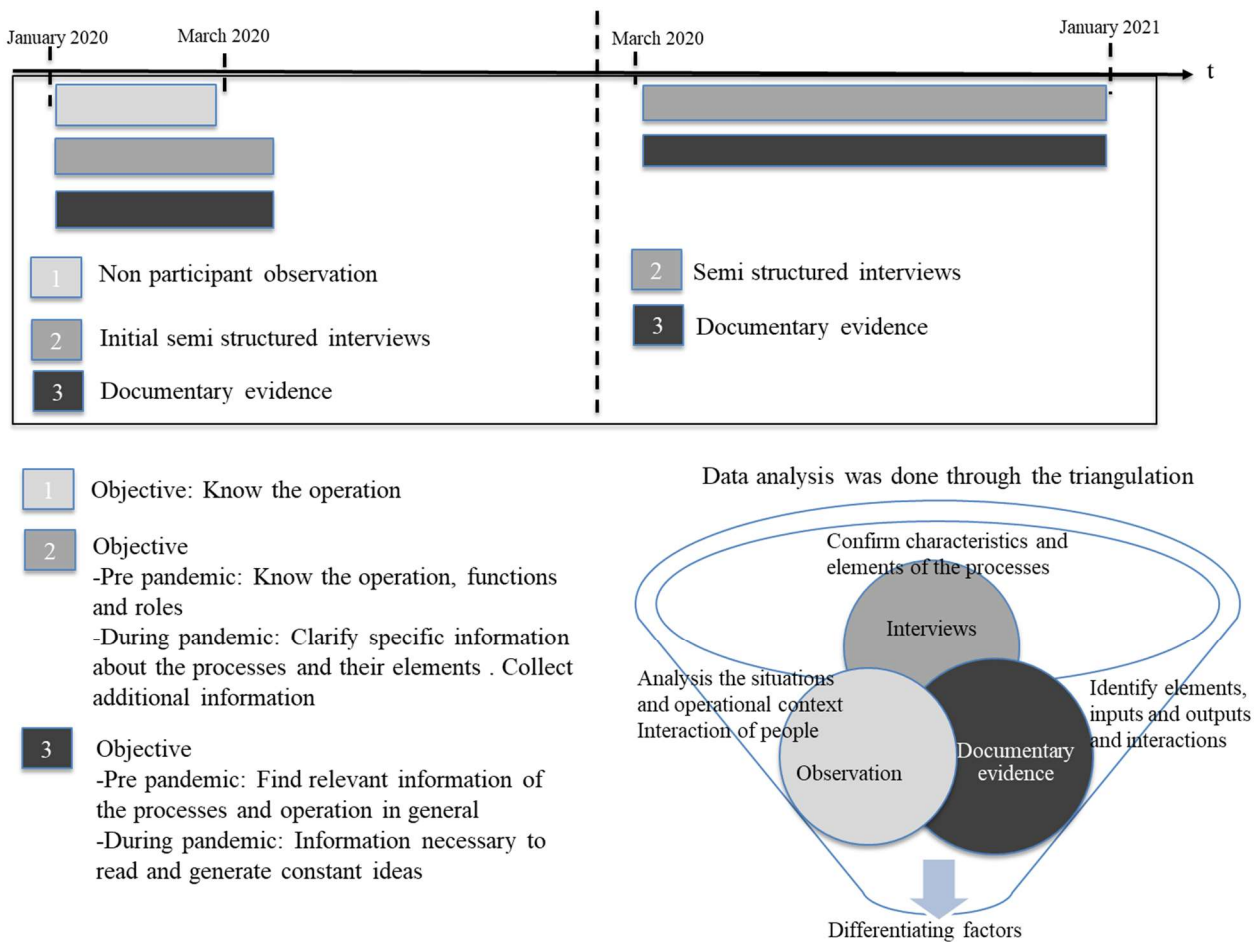


Fig. 3. Triangulation of data collection methods

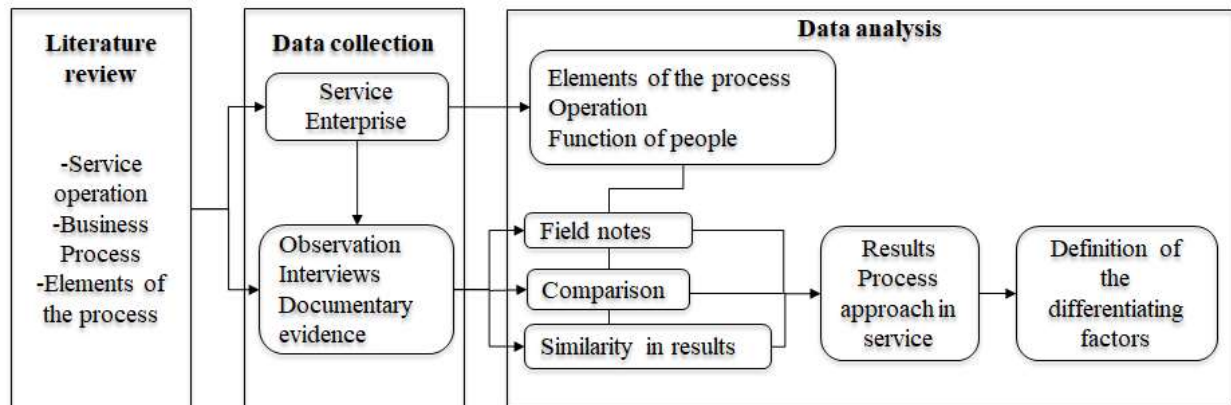


Fig. 4. Overview of research methodology

4.1.2.2. Process inputs and outputs

There were five elements that could be identified as process inputs and outputs in the operations of the organization. They accomplished two important characteristics: intangibility and non-physical components. As an introduction to describe these components, in Table 4, types of inputs and outputs are presented based on processes that were analyzed in the service company. It presents inputs and outputs that were found and their corresponding classification that is described below.

a) Information: Information was specially presented through documents that people received in different ways, such as e-mail (most of the time) or through technological tools. Also, there were found attached

files that sometimes needed to be printed if the operation required it.

b) Requests: They were presented in two ways. The first is through an external customer who requested the training service. These kinds of requests were regularly received by e-mail, telephone and an electronic form located on the company's web page. The second request came from internal customers who used electronic tools and formats to register necessary information for others, which was fundamental to the continuity of the operation and to generate an automatic request. Moreover, internal customers regularly used electronic or verbal ways to require information and resources from others.

- c) **Documentary evidence (formats).** Documentary evidence was found through electronic formats. Their use was usually for describing data and register relevant information about the operation, time, customers, or activity programming. In documentary evidence, internal customers could find information such as dates, codes, or references of any other document that were usually used to process another activity and necessary for traceability.

The importance of formats resided in marks that people put into them. For instance, symbols that are indicative of some approval or request. This kind of mark was used to send automatic notifications.

- (d) **Authorizations:** They were specially originated from managers. It was classified as an input or output because they were essential to the operation flow, for example, to buy resources to prepare the service. The following ways were identified to give or received authorizations: formats, e-mail, chats, calls, or even only a verbal authorization. Most of the authorizations had evidence to support the response and approval that is sought from others.
- (e) **Directions and instructions.** Similarly, as in the authorizations, managers had the power to give some instructions or directions about the operation. There was not necessarily a document as a support to an input or output. The main aspect of the instructions and directions was the identification of people who were the main element to obtain the information. It was usually very necessary to the production chain flow.

4.1.2.4. Process control

The following factors, related to process control in the service, were found.

4.1.2.4.1. Cycle time and bottlenecks

Most of the bottlenecks in the service were produced by people who had a specific and fundamental function in the processes.

Most of the necessary activities to produce the training service did not have a specific time to be executed. Other activities, which had a definition of the time to be executed, did not have a control for its compliance. Hence, a specific time was necessary for each activity that the staff executed. As a result, when there were delays in the processes, bottlenecks appeared. The main reason for this result was because of the absence of a definition on time specificity for the activities that people executed.

Each identified process in the company was produced by people. However, once interviews and analysis of the information were done, no evidence about time control in the activities was found. Consequently, delays in the delivery of information, necessary to produce the service, were identified. For example, delays were found starting from the sales confirmation which is the first input for the rest of the production chain or during the process of obtaining customer information to prepare the necessary resources for the training service. Additionally, there were negative effects on customer satisfaction, especially in internal customers who required the information and resources.

To summarize the process control factor, Fig. 5 illustrates how people were observed as a part of the production line that needed specific time programming to do activities and their function during the process. According to the figure, the result will be the cycle time compliance and, consequently, customer satisfaction.

4.1.2.4.2. Time delivery

Time delivery was presented according to customer requirements or necessary purchases which needed to be acquired at a specific time to produce the service.

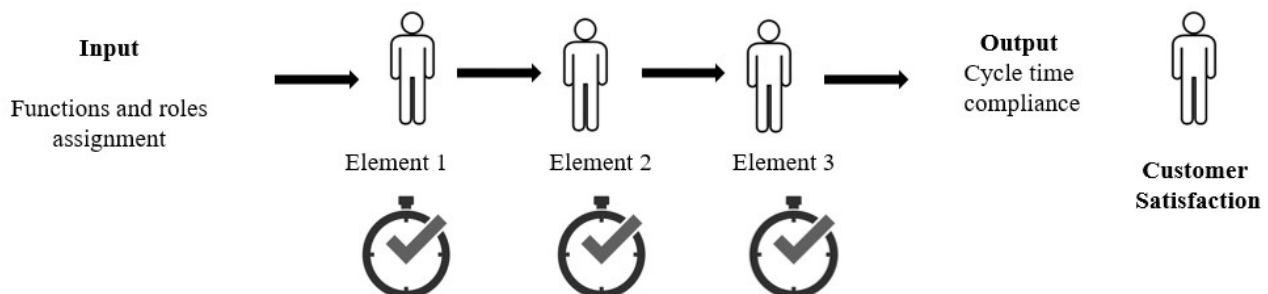
Some activities which needed to be done according to specific times were identified. As an example, to provide the training service, it is necessary the buying material and resources which must be bought in a specific period, approximately a week before the date of the training. For acquiring these resources, the purchase management process needs a previous confirmation from the sales process, which must be given one week before, at least.

Table 3. Nature of the analyzed processes

Process	Description
Sales	Originated from a customer requirement or customer search to offer the service.
Service execution	Core process to provide the training service which is no tangible, and there are no physical elements in this result.
Customer attention	It has a particular relation to the customer, but there are no physical elements, only interactions.
Certification service	It is characterized by giving customer attention merely to help customers during an exam presentation.
Purchases Management	A purchase is necessary to give resources to the customers. Resources are electronic materials.
Financial Management	The execution of the process is administrative. It refers to generate relevant information to confirm financial status.
Human Resources Management	This process includes administrative activities for the management personnel.
Technical Support	Technical support is to be requested through a format.

Table 4. Process inputs and outputs found in the case study

Process	Input	Type of input	Output	Type of output
Sales	1. Customer requirement	1. Verbal request	1. Sales confirmation (verbal or by e-mail) 2. Register of personal customer information (name, e-mail) 3. Purchase order or payment	1. Indication / information by e-mail 2. Format. Documentary evidence 3. Electronic information
Service execution	1. Sales confirmation	1. Instruction / information by e-mail	1. Customer Satisfaction survey 2. Confirmation of trained people	1. Format. Documentary evidence 2. Instruction. E-mail
Customer attention	1. Confirmation of trained people	1. Instruction- E-mail	1. Confirmation to take an exam	1. E-mail confirmation and format
Certification service	1. Confirmation to present an exam 2. Exam requirement 3. Authorization of purchase	1. E-mail confirmation and format 2. Information and register 3. Verbal or documented authorization	1. Exam result (document)	1. Printed information
Financial management	1. Purchase order or payment 2. Invoice requirement	1. Electronic information 2. Automatic notification/ Electronic requirement	1. Invoice and confirmation	1. Electronic document, notification by e-mail / notification through a format
Purchases management	1. Sales confirmation (verbal or by e-mail) 2. Register of personal customer information (Name, e-mail)	1. Indication / information by e-mail, authorization 2. Format. Documentary evidence	1. Necessary resources to give services (electronic material)	1. Electronic information
Human resources management	1. Personnel request	1. Printed or electronic document	1. Personnel hiring	1. Confirmation of the hiring. Printed documents
Technical support	1. Support request	1. Electronic request through a form	1. Notification of troubleshooting	1. Electronic notification by e-mail

**Fig. 5.** Cycle time compliance in a service productive line

Similarly, as in the inputs and outputs, deliveries were regularly no physical and it was important to consider outputs that were mentioned on the description about process inputs and outputs to identify them. It is necessary to emphasize that delivery times are related to the output, to people who executed the activity and the staff who are

involved on the processes. This last element (people) will be presented later in the last category.

4.1.2.4.3. Customer satisfaction

Another factor identified as part of process control was customer satisfaction because of the necessity to measure

the quality of service. Customer satisfaction was identified through attention time, quality attention during the service and after sales service had been offered.

The way that the enterprise evaluated customer satisfaction was through a satisfaction survey, which was carried out electronically and it had automation to receive answers. It was elaborated through a technological platform, which was very easy to use because it could be sent to customers.

4.1.3. People

The last category for describing the differentiating factors of the process approach in services is "People." In this section, two factors are presented, and they are described below.

4.1.3.1. Human resources

It was found that ten people, who were part of the staff, were critical factors to do all the activities and to provide the service. They figured as a pillar to achieve tasks, activities, and processes. There was not another kind of component which was more necessary than people to produce the training service. People, who worked within the company, contributed to resource delivery, time compliance or to information delivery. Hence, people were found vital and an essential factor to coordinate operations and to maintain the information flow.

An important relationship between human factors and process inputs and outputs was found because information and necessary resources to provide the service, emanated from people. Likewise, specific functions of these people played a special role in complying with the activities and to the quality of the service. These findings were so important to emphasize how important human resources are.

Moreover, it was identified that human resources figured as a product line to the service production. In this sense, it was not possible to see elements and delays easily to identify problems immediately. Then, it was difficult to attack the root of the problems and take action to find solutions as soon as problems were shown up. People had

specific activities in the production of the service, so every delay during the execution could cause a process deviation. Most of the problems originated when information and necessary resources were not given to other people to continue the operations and processes. Human resources were defined as a key element because, without them, it was impossible to comply with timely deliveries, outputs creation or continuous operation flows and, finally, obtaining a final service or customer satisfaction.

Fig. 6 presents the central operation of the analyzed service where it is possible to see that the participation of people to give information and input for the other part of production is required.

In Fig. 6, every input and output has a characteristic that provides resources that are not necessarily tangible or physical. Furthermore, it is observed that the development of the production is based on people's participation. It was found that people act as a machine in a production of a service; during the analysis in the production, it was observed how the people's participation was so important not only to the external customer satisfaction but also to the internal customers during the production line because people provided necessary resources to others to provide the service.

Similarly, Fig. 7 represents how human resources acted as a productive line, where there were inputs, in which it was necessary their processing by people to achieve an output and customer satisfaction.

4.1.3.2. Staff roles

The identification of the functions and responsibilities of the internal customers facilitated the understanding of internal interactions and the importance of each person to the production flow. The main finding in this section is that not all people performed correct functions to the chain production. There were people who processed different activities according to their job profile. Consequently, there were failures or instability in the processes. In this way, it was identified that people, as internal customers, needed a specific role to give the correct information to others and achieve the continuous flow in operation.

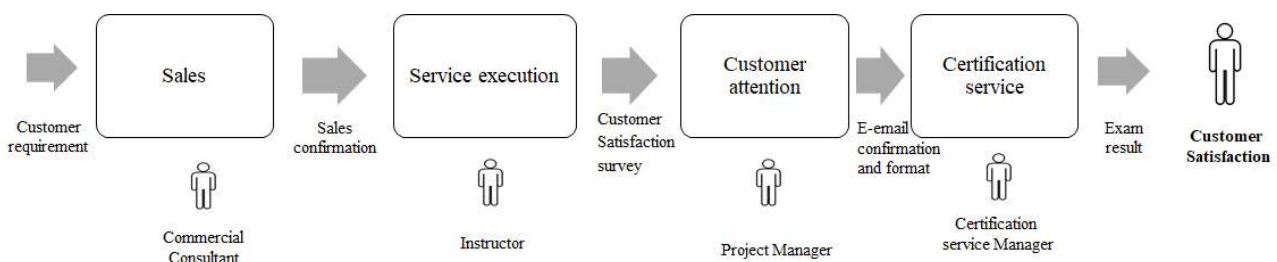


Fig. 6. Human resources as a production line in the analyzed service.

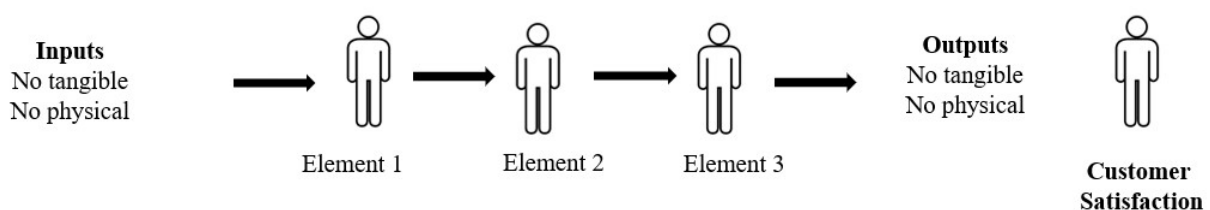


Fig. 7. Human resources as a productive line in the service

There were three processes in which it was identified that the activities were executed by people whose function and role of their job profile was different from the activities that they executed in the processes. Therefore, those processes were not completely and efficiently executed and presented a misalignment or a breach. In contrast, other processes presented an alignment due to the knowledge and capacity that people who executed the activities had, so there was an alignment between the activities required in the processes and staff's functions according to the job profiles. In these processes were found both compliance and an alignment.

Table 5 sums up the analysis of the results about the alignment of staff's functions and roles in the processes. In Table 5, it is possible to see that some processes were executed by the same positions. For example, the "certification service manager" performed activities in two processes (customer attention and certification service). As a result, there was a misalignment in one of these processes (customer attention) because this person only had the knowledge and skills to execute the activities of the other process (certification service). The same case was presented with the "financial coordinator" who executed two processes (financial and human resources management). Similarly, in the sales process there was a person (commercial director) who executed other activities that were not necessarily related to their job profile. Also, this person needed to execute other activities related to the company's strategy. The rest of the processes presented an alignment as people performed activities according to their job profiles.

Fig. 8 and Fig. 9 illustrate the comparison between process alignment and misalignment observed due to the functions assigned to the staff. Fig. 7 represents the compliance and alignment of the processes that are originated due to correct staff's functions and the execution of the activities according to the job positions. The arrow is shown in a pending straight, which represents the coordination between the functions and people who executed the activities in the processes.

Fig. 8 presents a misalignment and breach of the processes that were detected because three people executed

a different function to their job profile. In this case, the arrow does not make a pending straight, so it is presented as a misalignment.

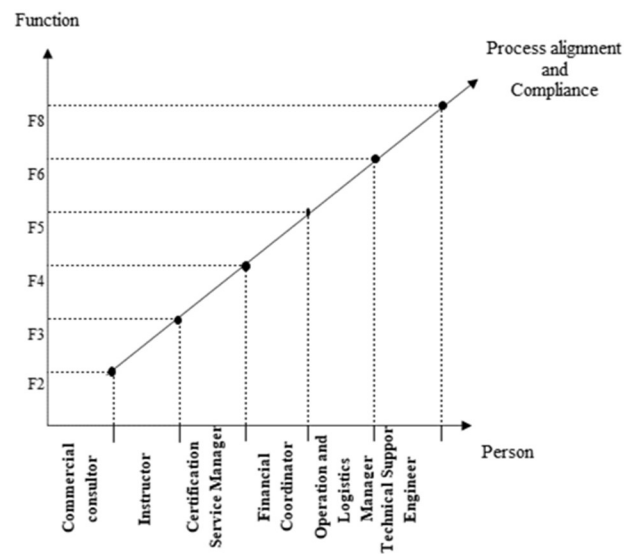


Fig. 8. Process alignment based on correct staff's functions

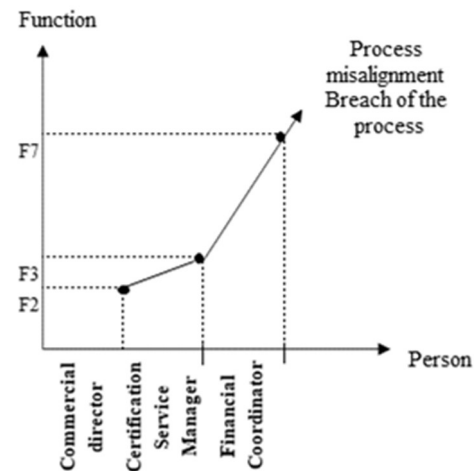


Fig. 9. Breach of the process due to the misalignment between staff's function and job position

Table 5. Alignment and misalignment in the processes according to the staff's functions

Process	Executed by	Function according to the activities		Process alignment / compliance	Process misalignment / breach
		YES	NO		
Sales	Commercial director		X		X
	Commercial consultant	X		X	
Service execution	Instructor	X		X	
Customer attention	Certification service manager		X		X
Certification service	Certification service manager	X		X	
Financial management	Financial coordinator	X		X	
Purchases management	Operation and logistics manager	X		X	
Human resources management	Financial coordinator		X		X
Technical support	Technical support engineer	X		X	

5. Discussion

Once the research was completed, six factors of the process approach in the service sector were identified (organization nature, process nature, process inputs and outputs, process control, human resources and staff roles). They were classified into three categories: organization, process and people. Although the elements of the processes are theoretically defined, in this study, it was possible to identify the factors of the process approach but focusing on service operation. Business processes have been studied in services (Aitken et al., 2016). However, authors have described general characteristics of services and business processes (no physical presence, intangibility, heterogeneity). This study considered the theoretical elements that have been studied in relation to business processes, and it allowed to find the elements of the processes and characteristics in a service operation instead of describing only general aspects of services. Lejpras (2019) mentions that services are not storable, so they must be consumed as they are produced. Through the analyzed operation, a type of service that meets this characteristic is exemplified. Also, it could find the characteristics of the processes in the service, despite the difficulty to identify them and their flows (Ha and Park, 2006). Similarly, performance measurement is considered a part of the processes (ISO, 2015). Findings show three forms of factors that can be considered during performance measurement in a service operation (cycle time, timely delivery, customer satisfaction).

Furthermore, business processes have a noted presence in manufacturing companies where product specifications are more measurable and standardized (Prajogo, 2005). It can be seen through tangible inputs and outputs or production through a machine that has a specific function to process inputs, so the analysis of the process approach is easier. Findings in this study present similarities in the sense of the elements of the process that can be identified in any operation but not in relation to characteristics of each one of these elements. In this study, it was possible to find elements related to production and nature of the process, although Žemgulienė (2009) mentions that such characteristics, inseparable and intangible nature, affect the understanding of the production process. Some types of activities related to the production process of the services were described in the "Process" section. Also, five essential factors regarding the inputs and outputs were found that reveal the way in which these elements are presented in an intangible and inseparable operation.

The identified factors could be useful not only for future research related to business processes but also to help find them as well as their similarities in other types of services.

From the findings, it is possible to say that processes can be studied more profoundly in any organization since the theoretical elements are the basis to do so. This article emphasized the essence of the processes in an operation that has intangible elements and results. Moreover, another key element that plays a critical role for BPM is people (Rosemann and vom Brocke, 2010; Pradabwong et al., 2017); some aspects were found, such as the staff importance and their functions to develop a final service efficiently and achieve customer satisfaction. Findings in this sense prove processes are liable to improvement and companies require doing analysis about staff, the structure and the functions assigned to each employee. Based on that,

managers can find opportunities to improve their business and even, find other important aspects for their employees to improve, such as continuous training to support activities correctly.

The main importance of the findings resided in the identification of the factors which are part of the process approach and how they were presented in a service company which could be useful for future research.

5. Conclusions

This paper has contributed to understanding some critical factors of the process approach that differentiates service organizations. The process approach as a principal kind of management has had a tendency oriented to the manufacturing sector. As one of the main contributions of this study is the description of some considerations and factors that managers and business process managers could think about to understand how the process approach in the service sector is, and they will have more opportunities to facilitate and achieve a successful project in BPM. In this sense, six differentiating factors were described (organization nature, process nature, process inputs and outputs, process control, human resources and staff roles) which were classified in three big categories: organization, process and people, from the study in a service company.

To summarize, the study has focused on aspects of the process approach, specifically those observed in the processes and operation of a service company. The elements of the process are theoretically defined and due to the nature of the manufacturing operation (tangible and physical), it is easier to identify them. However, this research presents important factors of the business process related to the service operations, despite the fact that theory affirms the difficulty of this approach in this type of sector.

This research has considered the importance of human resources, no tangible elements in operations, some forms to control processes and other considerations in intangible operations. The importance of business process practice is emphasized regardless of the sector enterprise. Hence, one of the principal contributions of this research is to highlight that the process approach is a very important practice and an opportunity to be practiced in service enterprises and achieve not only improvement but also competitiveness.

Limitations of this study are firstly related to the fact that the research was developed through a case study in a service enterprise and processes based on its operation. Also, most of the research was carried out remotely due to the health contingency that is currently being experienced worldwide, so it limited the physical interaction with people. Nevertheless, this research could be useful to be applied in other kinds of services.

Managers could consider the differentiating factors that are described in this study to implement them during a BPM project in future research. This can help to understand processes in the service sector, specifically in a production that is characterized by having intangible inputs and outputs. Moreover, since results are presented in a single case study, it could be attractive to do continue the research considering a larger sample and in other contexts different to the training service. Similarly, it could be interesting to carry out a quantitative study in order to compare the factors that were obtained through the qualitative techniques in this research.

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