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Relationship Process Map in services: a tool to enhance the management of relationship interactions

Noel Torres Júnior[1] Dario Ikuo Miyake[2] Victor de Oliveira Campello[1] and Pedro Henrique Pereira de Castro[1]

Federal University of Minas Gerais, Department of Administrative Sciences, Belo Horizonte, MG, Brazil[1]

University of São Paulo, São Paulo, SP, Brazil[2]

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Autor correspondente: Noel Torres Júnior - noel@face.ufmg.br

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Abstract

Valuing regular customers is key to building strong, lasting relationships. This creates loyalty and allows companies to offer personalized service and anticipate future needs. However, the available service management tools do not consider how interactions are shaped and how the information recorded during continuous and medium to long-term relationships. This article proposes a tool called "Relationship Process Map" (RPM) that aims to describe the service process, considering how the relationship is formed. The RPM tool helps manage services by depicting the company's customer relationship. It identifies the recorded actions and suggests changes to improve customer relationship management. It can be used to improve service quality management and provide a rational basis for external marketing. The RPM tool highlights that it can identify deficiencies in the service process and gaps in monitoring customer interactions, which can help develop new checking mechanisms to strengthen monitoring practices.

Keywords: relationship process map, relationship in service, quality of relationship, service representation tools, digital transformation

Resumo

Mapa do Processo de Relacionamento em serviços: uma ferramenta para aprimorar o gerenciamento das interações de relacionamento

Valorizar os clientes regulares é fundamental para criar relacionamentos fortes e duradouros. Isso cria fidelidade e permite que as empresas ofereçam serviços personalizados e antecipem as suas necessidades futuras. No entanto, as ferramentas de gerenciamento de serviços disponíveis não consideram como as interações são moldadas e como as informações são registradas durante relacionamentos contínuos e de médio a longo prazo. Este artigo propõe uma ferramenta chamada "Mapa do Processo de Relacionamento" (MPR), que tem como objetivo descrever o processo de serviço, considerando como o relacionamento é formado. A ferramenta MPR ajuda a gerenciar os serviços ao descrever o relacionamento da empresa com o cliente. Ela identifica as ações registradas e sugere mudanças para aprimorar o gerenciamento do relacionamento com o cliente. Ela pode ser usada para aprimorar o gerenciamento da qualidade do serviço e fornecer uma base racional para o marketing externo. A ferramenta MPR pode identificar deficiências no processo de serviço e lacunas no monitoramento das interações com o cliente, o que pode ajudar a desenvolver novos mecanismos de verificação para fortalecer as práticas de monitoramento.

Palavras-chave: mapa do processo de relacionamento, relacionamento em serviços , qualidade do relacionamento, ferramentas de representação de serviços, transformação digital

Resumen

Mapa de procesos relacionales en los servicios: una herramienta para mejorar la gestión de las interacciones relacionales

Valorar a los clientes habituales es clave para construir relaciones sólidas y duraderas. Esto genera fidelidad y permite a las empresas ofrecer un servicio personalizado y anticiparse a necesidades futuras. Sin embargo, las herramientas de gestión de servicios disponibles no tienen en cuenta cómo se configuran las interacciones y cómo se registra la información durante las relaciones continuas y a medio y largo plazo. Este artículo propone una herramienta llamada "Mapa del Proceso de Relación" (RPM, por sus siglas en inglés) que pretende describir el proceso de servicio teniendo en cuenta cómo se forma la relación. La herramienta RPM ayuda a gestionar los servicios representando la relación de la empresa con el cliente. Identifica las acciones registradas y sugiere cambios para mejorar la gestión de la relación con el cliente. Puede utilizarse para mejorar la gestión de la calidad de los servicios y proporcionar una base racional para el marketing externo. La herramienta RPM destaca que

puede identificar deficiencias en el proceso de servicio y lagunas en el seguimiento de las interacciones con los clientes, lo que puede ayudar a desarrollar nuevos mecanismos de comprobación para reforzar las prácticas de seguimiento.

Palabras clave: mapa del proceso de relación, relaciones en los servicios, calidad de la relación, herramientas de representación del servicio, transformación digital

1 Introduction

Typically, customers purchase services on an ad-hoc basis, paying for each purchase separately and seldom establishing a formal relationship with service provider. However, customers may develop ongoing relationships with their suppliers and receive services on a continuous basis. In the former case, the relationship between the customer and supplier is based on several transactions. A single transaction or a series of transactions does not necessarily create a relationship that requires mutual recognition and knowledge between the parties involved. Establishing a relationship between the customer and supplier can be tough when transactions are essentially discrete and anonymous, with no long-term record of the customer's purchasing history and little or no mutual recognition between the customer and employees (Lovelock, 1983). However, for many small businesses, it is critical to value their frequent customers. Remembering the needs and preferences of these customers is essential for providing personalized service and anticipating future needs. Keeping records of customer preferences and purchasing behavior can be useful. It helps employees avoid asking the same questions on each service occasion and enables the business to deploy more sophisticated loyalty strategies (Lovelock et al., 2022).

Depending on their motivations and contextual factors, service organizations seek superior service performance by adopting a specific approach to operational excellence or a combination of them. The implementation of ISO 9000 can be an effective way to exploit their standards as a source of competitive advantage and to increase quality awareness (Lee et al., 2009; Singh et al., 2006). When process improvement and management can be technology-enabled, service organizations can promote their automation and integration through the implementation of Business Process Management (BPM) projects and thus improve the delivery and control of their service processes (Trkman et al., 2015). In service organizations that employ more repeatable processes, initiatives to enhance service level by streamlining the flow of value-adding activities and eliminating wastes can be driven by the application of Lean methodology (Gupta et al., 2016). Furthermore, a growing number of service organizations have adopted the Six Sigma methodology in the deployment of projects aiming at the

improvement of service consistency levels through the reduction of process variability, relying on systematic data collection and analysis (Antony et al., 2007).

The diversity of services available to consumers is vast, and we can examine them through the lens of various service attributes. As a result, a wide range of service classification schemes is found in the existing literature on service management (Cook et al, 1999). A prominent approach considers that as for the frequency of use and duration of the relationship between the customer and provider, we can place services in a continuum between isolated transactions and long-term relationships (Grönroos, 1991). For service processes delivered through the relational pattern of the latter end over a series of service encounters, the issue of building and nurturing Relationship Quality is critical (Grönroos, 2015). In the context of providing this type of service, Total Quality Management (TQM) stands out as a management approach that encourages companies to prioritize quality in the relationship with the customers to ensure their loyalty (Soltani et al, 2008).

An analysis of the main dimensions of TQM reveals that meeting the needs of customers and ensuring their satisfaction should always be the top priority for every employee. TQM emphasises that it is essential to establish a solid relationship between the company and the customer (Martínez-Lorente et al., 1998). It also highlights the importance of the relationship between the company and customers in the perception of service quality. The concept of "Relationship Quality" can be understood as something that comes from the dynamics of forming a long-term quality in the continuous relationship with customers. Relationship Quality is an important element of customer retention, and it is built by several interactions between company and customer, which occur almost continuously (Gummesson, 1997; Gwinner et al., 1998; Hennig-Thurau & Klee, 1997). Also, satisfaction with a service encounter influences a customer's future behavior and retention (De Cannière et al., 2010).

Nowadays, digital transformation drives the establishment of relationships between companies and their customers. Digitalization refers to the process of using digital technologies and digitized data to transform work processes, customer interactions, and revenue streams. In the service industry, digitalization has become a significant area of research, and it is crucial in gaining a competitive edge in today's rapidly changing business environment (Rha & Lee, 2022). Businesses can benefit greatly from digitalization by working collaboratively with customers, discovering new revenue streams, improving communication with consumers, and providing better customer experiences. Moreover, it can make organizations more agile and adaptable to changing market conditions (Kretschmer & Khashabi, 2020; Ris & Puvača, 2023).

A strong digital transformation strategy includes Customer Relationship Management (CRM) system, which are essential for understanding customer needs, streamlining operations, and improving inter-team communication. CRM provides a

comprehensive view of customers, enabling personalized experiences that are crucial for retaining customers in today's competitive market. It also helps organizations shorten sales cycles, identify areas for service improvement, and make informed, data-driven decisions. Without CRM, businesses miss out on a critical tool for managing relationships and responding to customer demands, making it an essential element for a successful digital transformation (Ris & Puvača, 2023).

Service management has traditionally focused on understanding individual service encounters between a company and its customers. However, there is a growing need to shift from analyzing isolated interactions to examining the ongoing relationships between both parties. While service management has been predominantly concerned with studying singular encounters, often viewing relationships through the lens of these discrete experiences (Holmlund, 2004), a more comprehensive understanding of long-term relationships between companies and their customers is crucial. This shift in perspective presents a key challenge: the importance of incorporating a broader dimension of customer relationships into service planning. To address this, important questions must be considered: How is the customer relationship structured? What service encounters shape this relationship, and how are they interconnected? What critical information is captured and stored by the organization throughout the service process?

Traditional tools for service design, such as Blueprinting (Bitner et al., 2008; Shostack, 1984), SERVPRO (Santos & Varvakis, 2002), PCN Diagrams (Sampson, 2015), Customer Journey Map (Følstad & Kvale, 2018), and Multilevel Service Design (MDS) (Patrício et al., 2011), are limited in their ability to describe the structure of the customer-company relationship. These tools fail to account for how interactions evolve over time and the information that is recorded during continuous, medium- to long-term relationships.

In the context of service development, enhancing customer relationship management (CRM) systems through new diagramming tools is critical. This article, therefore, proposes a tool called the "Relationship Process Map" (RPM), which seeks to map the key elements of the service provision process by illustrating how the relationship between the company and its customers is structured. The RPM provides a visual representation of a company's relationship with its customers within specific service contexts. To demonstrate its application, a case study involving a dental practice is presented.

This tool differs from conventional service diagramming tools because it provides a comprehensive understanding of how the relationship between a company and its customers is structured in the existing service delivery process context. As a result, it can be a helpful instrument for enhancing the customer relationship management system and managing service quality.

Based on applications of this tool, the proposed tool is suitable for businesses that require a direct relationship with their customers and provide tangible or intangible services to them, such as in the healthcare, education, and hospitality sectors. It is particularly effective for small and medium-sized companies with this profile.

The rest of this document is organized as follows. Section 2 discusses the relationship in the services context and describes the main methods and techniques for developing services that communicate existing and proposed solutions to company members. Finally, this section describes the characteristics of the relationship process map. Section 3 presents the components, structure, and steps in designing the RPM. In addition, an example of a RPM for a dental clinic is presented. Finally, Section 4 presents the contributions of this study, the managerial implications, the limitations of the work, and future research directions

2 Literature Review

2.1 The relationship in services

Customer relationship management (CRM) represents a shift towards retention and relationship focus rather than just acquisition and transaction. Although it may seem relatively recent, several industries have applied CRM for decades (e.g., corner grocery stores, neighborhood car repair shops, banking services to high net-worth clients). The key processes for an effective CRM strategy are defined as Strategy Development, Value Creation, Multi-Channel Integration, Information Management, and Performance Assessment (Lovelock et al., 2022).

Customer Relationship Management (CRM) brings benefits of customer retention for both customers and firms. Customers are more likely to remain loyal to a company if they perceive that they are receiving more value than other companies if they have the option to choose. The level of value that customers receive from a company in relation to their expectations of other companies determines their loyalty. Therefore, customers benefit from greater value, increased confidence, social ties, and special treatment. On the other hand, firms benefit from building and maintaining a loyal customer base (Zeithaml et al., 2023).

Customers tend to spend more with a company over time and are willing to pay more for quality services. In addition, firms can experience lower marketing expenditure when they retain established customers (Gupta & Zeithaml, 2006; Homburg et al., 2005).

The contribution of loyal customers to a business extends beyond their direct financial impact. Loyal customers provide free advertising through positive word-of-mouth communication, which is more effective than paid advertising. They also provide social support to other customers, which can improve the service's overall experience. Additionally, loyal customers can serve as mentors and help new customers understand the rules of conduct

(Gremler & Brown, 1999; Grove & Fisk, 1997; Rosenbaum & Massiah, 2007; Zeithaml et al., 2023).

A company can benefit from having loyal customers when managing its human resources. Firstly, loyal customers can assist in the co-production of the service, thereby making the job of the service employees easier. Secondly, loyal customers have practical expectations of the company's processes and procedures. Thirdly, customer retention helps in employee retention, making it easier for a firm to hold onto its employees when it has a stable base of satisfied customers (Danaher et al., 2008).

According to Holmlund (1997, 2004), the relationship between a company and its customers is built on their interactions. The quality and intensity of these interactions are crucial for effective Customer Relationship Management (CRM). Although the nature of these interactions may differ depending on the service offered, they can be categorized into four levels that form a hierarchical structure. These levels range from the smallest to the largest and can be depicted schematically.

- Action level: the smallest unit of analysis in the interaction process, also known as "moments of truth. Any exchange of elements, be it products, information, money, or social contacts, can be subject to actions. "Examples include telephone calls, service requests, and records of a hotel stay.
- Episode level: made up of interrelated actions that form a small part of a relationship, also known as a "service encounter." Each episode includes a series of actions, such as dinner in the hotel restaurant or check-in during a customer stay.
- Sequence level: formed by aggregating interrelated episodes with a specific purpose that make up an intermediate relationship module. Sequences can overlap so that the episodes that make up one sequence are also part of another. An example of a sequence is a hotel stay during a given period.
- Relationship level: the most aggregated level of analysis, made up of several sequences. A series of sequences can occur with or without overlap.

To analyze the relationship between a company and its customers, it is essential to understand how customers interact with the company. These interactions can occur between customers and the company's personnel, physical or technical resources and systems (such as waiting systems, telecommunication, delivery, and websites), or with other customers who may be involved in the same process. (Gronroos, 2015)

When considering the customer's perspective, four prevalent types of interaction can occur during service encounters. The first is an interaction between the provider's personnel and the client. This is predominant in several services, and the quality of the service provided often depends on the client's cooperation. The second type of interaction is between clients themselves. In some services, such as nightclubs, customers dance with each other, which

produces an essential part of the service. However, the provider must still manage the system, environment, and personnel to ensure a smooth experience. The third type of interaction occurs within the servicescape, which includes the physical environment and products. In some services, the physical environment plays a prominent role in customer experience. For example, in supermarkets, the location of products, the store's layout, and the convenience of the parking lot are all essential to the overall service. The last type is the interaction between customers and the service provider's systems, which is just as important as the interaction between staff and customers. For customers to have a positive experience, they should be able to easily access the systems provided by the service provider. For instance, a significant portion of a customer's interaction with a bank may occur through Internet banking (Gronroos, 2015; Gummesson, 2002).

By understanding these different types of interactions and the structure that makes up the relationship, a company can better evaluate its relationship with customers and make improvements where necessary.

2.2 Know-Solution methods and tools

Services are usually considered intangible and complex produced at the point of delivery, making them rarely considered a "design object." However, various methodologies and support tools have been developed over the last few decades to enhance and improve services. These methods and tools can be evaluated along two dimensions. The first dimension pertains to the designers' motivation to master the method or tool, whether they are seeking a solution to a problem or trying to identify the problem they are dealing with. The other dimension relates to the main objective of the method or tool, whether it is focused on learning or doing/creating. With these two dimensions, we can create four quadrants: Know-Problem, Know-Solution, Make-Solution, and Make-Problem. Most methods are mainly used to understand the problem (Know-Problem). Additionally, others are essential tools used to communicate existing and proposed solutions (Know-Solution). Finally, in the "make-solution" quadrant, we find methods and tools that are related to prototyping (Alves & Jardim Nunes, 2013).

This paper presents a tool that falls into the Know-Solution quadrant. This tool aims to communicate existing and proposed solutions to employees within a company. We will briefly describe this quadrant's main methods and tools, based on the work of Alves and Jardim Nunes (2013), before introducing the proposed tool (RPM).

- Service blueprint is a visual schematic that maps out the nature and characteristics of the service delivery process, detailing the interactions between service providers and users. It is useful for operations and managers to understand the fundamental building blocks of consumer perceptions. The blueprinting exercise also helps managers identify potential fail points and design foolproof procedures to avoid them, thus ensuring high-

quality service delivery(Bitner et al., 2008; Shostack, 1984). Various types of blueprints exist, such as the Service Experience Blueprint (SEB) (Patrício et al., 2011), the Extended Service Blueprint (Hara et al., 2009), Product–Service Blueprint (Geum & Park, 2011), and the Information Service Blueprint (ISB) (Lim & Kim, 2014), each with their focus on specific aspects of the service delivery process.

- Customer Journey Map is a representation of a customer's experiences throughout their interaction with a service, taking into account the time and space required to achieve a specific goal. By identifying touchpoints where users interact with the service, a "journey" can be constructed. This model enables designers to evaluate the effectiveness of the service for the user, identifying "magic moments" that work well and "pain points" that require improvement (Stickdorn & Schneider, 2011).
- Storyboarding is a technique to represent use cases by arranging them in a narrative sequence. This technique involves creating a series of drawings or pictures to help visualize a sequence of events that may occur when using a service or when developing a new service prototype. The storyboard includes details about where the interaction occurs, the people involved as personalities, and the actions and activities they perform while interacting (Truong et al., 2006).
- Personas are fictional characters created after observing potential users thoroughly. They offer a representative figure that clients and design teams can relate to. Emotional, qualitative, and lifestyle issues should be balanced correctly with contextual and holistic understanding. However, the narrative can get complicated with distracting details (Stickdorn & Schneider, 2011).

3 The Relationship Process Map

This section outlines the characteristics, format, and elements of the Relationship Process Map. Finally, it presents the steps involved in designing a Relationship Process Map (RPM).

3.1 Characteristics of the Relationship Process Map

Tools like traditional flow charts or service blueprints present service processes at the acts and/or episodes level. However, understanding the interactions hierarchy provides a more comprehensive view of the relationship and its sequences (Holmlund, 1997). Therefore, the development of a tool that represents the service process, taking into account how the relationship is formed, can be understood as a useful instrument for improving the management of services.

The perception of quality in a service emerges over time through the interactions between the service provider and the customer. To better understand how quality is perceived,

service organization managers need to recognize the importance of these interactions. This highlights the need for management practices that focus on building strong relationships with customers to achieve and maintain a high level of service quality (Holmlund, 1997, 2008). The RPM is a tool that helps visualize how the organization tracks service interactions at every stage of the customer's journey. Using this map, we can identify which actions are being recorded and how this information fits into the context of the service process. Through this analysis, we can suggest changes to the process that will help incorporate more information into the company's customer relationship management.

Managing information effectively during the service journey is crucial to create value for the customer. Lovelock (Lovelock, 1995; Lovelock et al., 2022) categorizes the information, consultancy, and advice provided to clients as supplementary services that facilitate and enhance the service experience. Providing relevant information is essential for delivering the service correctly, and offering consultation or advice can add extra value and attract new customers. Customers require information such as service location, hours, pricing, terms and conditions, summaries, notices, and guidance to obtain the full value of any product or service. New customers are especially eager to receive information about service. Therefore, companies should ensure that the information provided is timely and accurate. Otherwise, it may inconvenience to customers, cause irritation, and make them feel a lack of control. Consultancy, on the other hand, involves a dialogue to understand customer requirements and develop customized solutions. Additionally, organizations can offer advice to customers to help them better understand their situations and create their "own" solutions and action programs.

As companies embrace digital transformation, the significance of efficient information management is increasing. By innovatively adopting and leveraging digital technology, businesses can enhance their customers' experiences, gain deeper insights into their needs, and establish more robust relationships with them. In addition, digital transformation has the potential to help organizations enhance their agility and responsiveness, thereby reducing the duration of various processes or allowing them to swiftly adapt to fluctuating market scenarios (Ris & Puvača, 2023).

Moving away from paper notes, agendas, and Excel spreadsheets to a CRM system can significantly boost win rates, streamline customer relationships, and improve customer data management. Organizations must choose a CRM tool that fits their needs, integrates with existing tools, and helps meet customers' increasing demands. A good CRM tool provides a range of advantages, including a thorough understanding of customers' needs, task automation, shorter sales cycles, and increased customer retention (Ris & Puvača, 2023).

The proposed Relationship Process Map is based on Holmlund's (1997) work, which categorizes interaction levels within a business relationship into five types: actions, episodes, sequences, relationships, and partner base. Furthermore, these interaction levels can be

refined to include both a process and an outcome aspect (Holmlund, 1997; Holmlund & Strandvik, 1999), reflecting the two dimensions of quality suggested by Grönroos (2015): technical and functional quality, which are considered primary dimensions of perceived quality. This structure outlines the relationship framework in a B2B context. Although initially applied to B2B settings, this framework was later adapted for B2C contexts, excluding the partner base level.

The RPM can be incredibly helpful for services involving people as input and output. For instance, at fitness centers, customers often want to transform themselves, such as by losing weight. Similarly, customers may seek a deeper understanding of contest exam subjects in preparatory courses. These types of services cannot be completed in a single session but rather require a series of actions and episodes to achieve the desired results. As a result, service providers must establish a relationship with the customer and guide them through each episode in an organized manner to help them reach their goals.

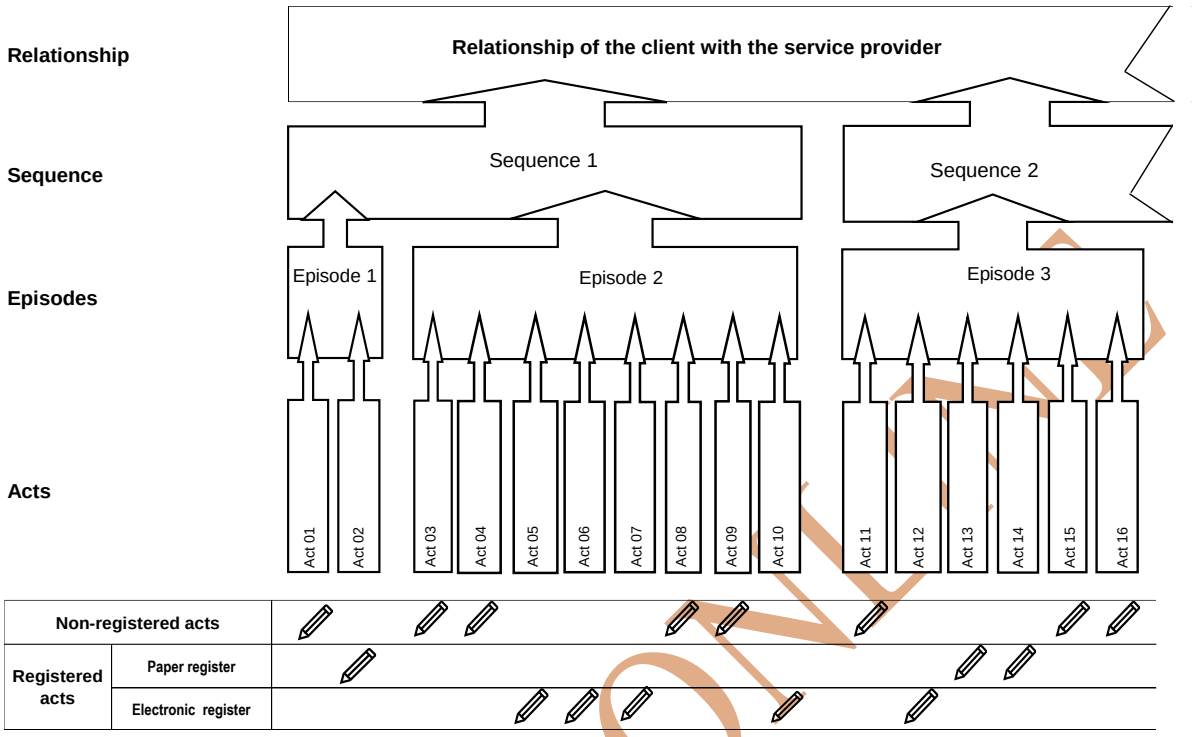
3.2. Structure of the Relationship Process Map

The RPM covers the four levels of the relationship: the relationship itself, sequences, episodes, and acts between the company and its customers. In addition, the map identifies the acts that are recorded and the type of record that is used.

The structure of the RPM is shown in Figure 1. This map complements the representation of the main sequences, episodes, and acts that take place in the company's relationship with its customers in providing a given service. It also shows how the company monitors these interactions.

Figure 1

Structure of the Relationship Process Map



The Relationship Process Map (RPM) is a tool that provides valuable information on how a company manages its customer relationships. RPM records data about the customer or service at each interaction level. Since customer satisfaction results from a series of interactions, companies need to understand how these interactions occur. This helps them manage the service process and ensure that they meet customer expectations while achieving their desired goals. RPM connects the interactions that occur along a series of actions in which the same customer segment participates.

3.3 Steps in Designing a Relationship Process Map

Below are the basic steps to follow when creating a RPM:

1. Identify the specific service to be mapped: It is important to distinguish this map from a general representation of a company's customer relationship. The RPM should specifically represent the relationship dynamics in providing a certain type of service.
2. Identify customers or customer segments: Each customer segment is different and has its own needs and expectations. Therefore, it is necessary to build RPMs that capture the specificities of the relationship with each segment. On a more abstract level, it is possible to contemplate the relationship with different segments in a single diagram.

3. Map the service from the customer's point of view: This step involves mapping the customer's choices or the actions performed during purchases, consumption, and evaluation of the service. Mapping tools available to service managers, such as ordinary flow charts or service blueprints, can make the identification of the process stages or elementary activities involved in the focused service easier.
4. Diagram the interactions that the focused service comprises in the four hierarchical levels in which they are structured: The interactions mapping may start at a macro level to identify the main episodes of the focal service process and then group them in sequences. Once the sequences and their episodes are determined, a global longitudinal view of how the relationship interactions occur is established, and the episodes should be unfolded in acts. It may require an additional and more detailed analysis of the process with data collection in loco.
5. Identify the existing registers in the service: The map should be complemented with the identification of the acts in which the organization collects and registers any data about the customer or how the service is delivered. The kind of registration used should be informed, considering that the most usual ways are using papers (e.g., clipboards, charts) or electronic format inputting data in a database using specific software or by automated data collection and entry systems (e.g., using bar codes or magnetic key cards).
6. Identify evaluation points: Every time the service process includes an episode or act performed to evaluate the customer's experience or the performance of the service process itself, this must be identified.
7. Evaluate the possibilities of improving the recording of the acts analyzed on the map. Look for ways to use the information collected to improve the service experience.

4 The Case of the Relationship Process Map application in a dental office

This section presents an example of how to apply the map to a dental office. Although only one service, in this case, a dental practice, is illustrated, the tool has been used to map several other services. The authors have successfully used the RPM in various services, including fitness centers, preparatory courses for university and public exams, real estate, and math tutoring. The mapping of these services has proved the generality and functionality of this tool. The Relationship Process Map (RPM) is well-suited for visualizing and analyzing processes and relationships in services that require direct customer interaction, whether offering tangible or intangible services, such as healthcare, education, and hospitality, particularly in the small and medium-sized business segment."

The dental office that was analyzed was established by a dentist in 2001 in a residential area in the southern part of the city. The clinic specializes in pediatric dentistry, mainly catering to children. Due to the COVID-19 pandemic, the clinic had to reduce its organizational

structure to save on operating costs. Consequently, the clinic now has only one person managing the office, the owner, who handles administrative and operational functions.

The Relationship Process Map was constructed by collecting data through document analysis and conducting interviews with the owner, who is also the company's dentist. This data collection took place between May and November 2023, and a total of seven meetings were held. The interviews aimed to understand the service process, as well as the methods of control and monitoring used for this process.

4.1 "AS IS" Clinic's service process

The clinic's service process varies somewhat depending on the treatment type. Given their greater representativeness and similarity, only cleaning services (preventive and aesthetic maintenance) and general aesthetic procedures (whitening, closing diastema) were selected and mapped. Figure 2 shows the "AS IS" process in RPM format.

The service process is made up of a sequence of several acts. It can be seen from the RPM that most of the acts are not recorded, even informally, which makes it difficult to control and manage the process. Acts are recorded using the professional's diary, the patients' technical files, and the history of WhatsApp conversations.

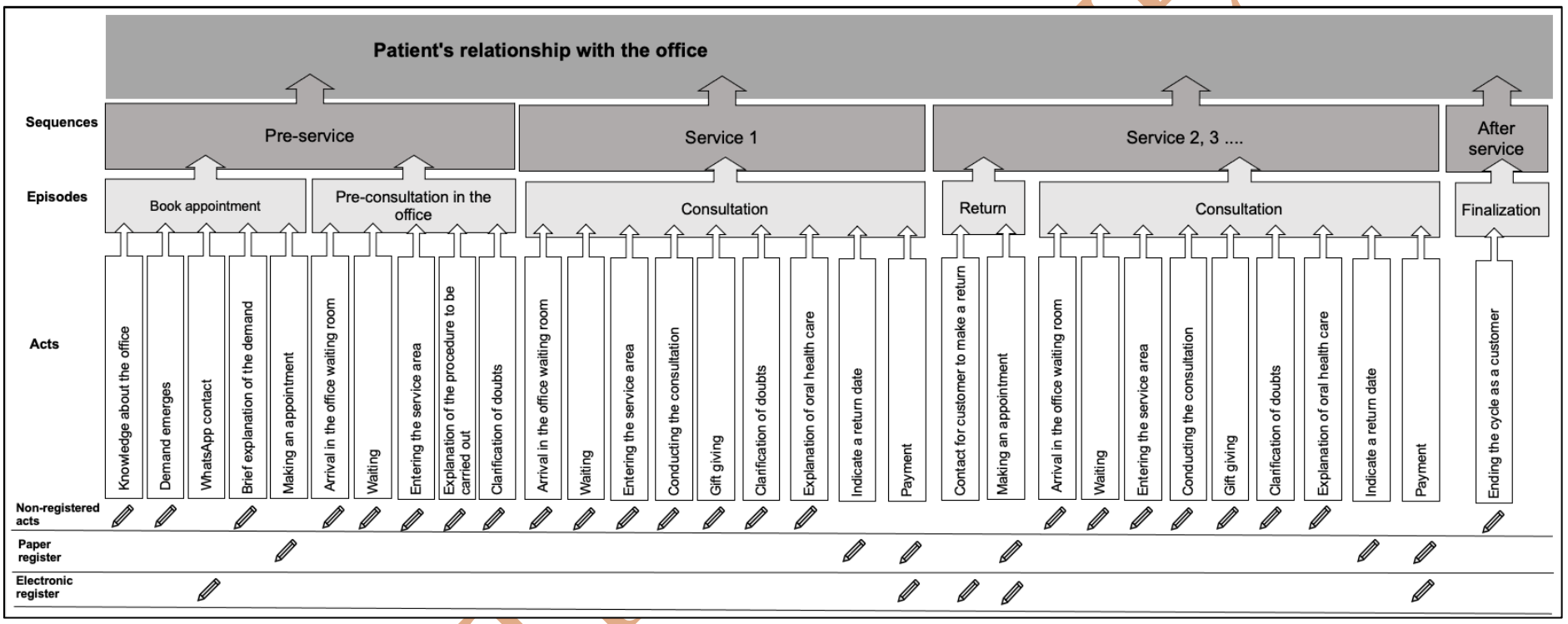
Contact with the client is not recorded in a unified and easily accessible way, making management difficult. The main means of recording information is physical: the dentist diary, with appointments, and the patient records, which include information on the treatments carried out with documents and exams for each patient. As this information is not consolidated in a database that is easy to access and exploit, typical CRM system analyses, such as studies on return rates, loyalty, client profiles, main services, and profitability, cannot be carried out.

In the current process, the dentist responsible for the case pointed out that the aesthetic treatments described in the map are usually carried out in multiple appointments. In these situations, the results are not those expected by the patients or the professional. The most likely factor identified is the lack of care and the failure of patients to follow professional guidelines daily between treatment intervals (Brunharo, 2011).

An analysis of the RPM shows no record of acts relating to clarifying doubts and explaining oral health care to obtain better results from aesthetic and cleaning treatments. This information is only passed on verbally to patients at the end of the consultation, favoring low patient compliance.

Figure 2

"AS IS" process in Relationship Process Map format



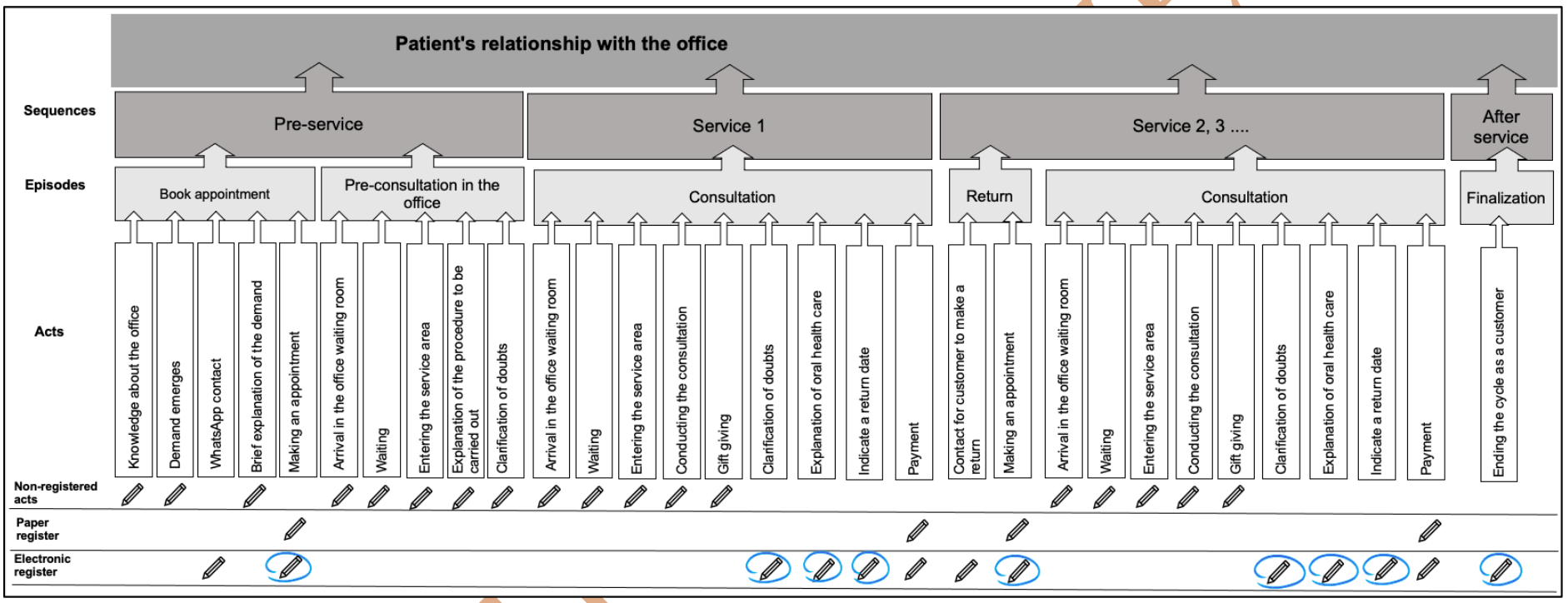
4.2 "TO BE" Clinic's service process

Based on the data collected and presented in the RPM, it is possible to evaluate the introduction of improvements to this service to structure customer relationship management and improve aesthetic treatment services. Figure 3 shows the "TO BE" process in RPM format. The proposed changes affect the RPM in the following acts:

- WhatsApp contact Act in the Book appointment episode: This activity is recorded only in the WhatsApp application. It is suggested that the client's details be recorded in a database.
- Making an appointment act in the Consultation and Return episodes: It is proposed that booked appointments be recorded in an online diary and incorporated into a database, allowing analysis of the appointments made.
- Clarification of doubts and Explanation of oral health care acts in the Consultation episodes: In addition to the existing conversations between the dentist and his patients, it is suggested that information leaflets be delivered via WhatsApp and that information on oral health care be made available on the clinic's Instagram and that periodic bots be sent to clients of the posts made.
- Indicate a return date act in the consultation - record this information in the database.
- Ending the cycle as a customer act in the Finalization episode - we suggest identifying the reason given by the customer and recording this information in the database.

Figure 3

"TO BE" process in Relationship Process Map format



4.3 Discussion of results

Lovelock (1995) suggests that one way to improve service is through strategies that add value by offering supplementary services that enhance usability and improve the overall experience, distinguishing the service from competitors. It is evident that some of the suggested changes align with this strategy, particularly those related to providing facilitating supplementary services related to information.

Several of the proposed changes could be seen as a part of a larger digital transformation process. Many companies are undergoing digital transformation, and the dental practice is no exception. While non-clinical aspects of dental practice have remained largely unchanged over the years, the rise of digitalization is starting to change that. Many technologies are now available to manage all dental information in a single format, which makes it easy to capture and store oral images, carry out electronic financial transactions, and retrieve and display information from different sources on a single screen. Digitalization can significantly improve patient care and the dentist-patient relationship (Bauer & Brown, 2001).

The Relationship Process Map tool, as shown in Figures 2 and 3, helped us understand how the customer relationship was structured. It broke down service encounters into acts, episodes, and sequences in a coherent and interconnected manner. The tool also identified critical information captured and stored by the organization throughout the service process, which is essential for incorporating a broader dimension of customer relationships into service planning. The authors found that using this tool was effective for planning service improvements by changing the recording and use of information in the studied processes. They also noted that the tool can be useful for planning the digital transformation process and building a CRM system.

5 Concluding remarks

Customer retention offers several benefits to organizations and implementing Customer Relationship Management (CRM) is one tactic used to achieve this. In addition to financial incentives, organizations aim to build long-term relationships through social and interpersonal bonds (Zeithaml et al., 2024). The Relationship Process Map is a useful tool for strengthening this strategy. By structuring service encounters into acts, episodes, and sequences, the Relationship Process Map allows for a detailed analysis of how social connections can be strengthened during interactions with customers. By mapping the relationship process, the tool helps companies identify key moments to build social ties, personalize service, and show genuine interest in customers. The Relationship Process Map also helps discover how to gather important information such as customers' preferences and interaction history, which is crucial for strengthening social bonds. Therefore, by strategically

using the Relationship Process Map, companies can visualize and improve the development of social ties with their customers.

Additionally, RPM provides a rational basis for external marketing. This tool can also be useful for improving service quality management. As it can identify in each act that makes up the service process whether the existing information is recorded, it also makes it possible to identify deficiencies such as lack of monitoring of the customer in acts or important episodes, failure in gathering fundamental data for the service control, register of irrelevant data, and use of inadequate registering means, among others. Identifying such gaps or inconsistencies makes elaborating new checking mechanisms that strengthen the monitoring practice and its effectiveness easier. For example, managers could develop new procedures to evaluate the evolution of the customer over the relationship or to capture his perceptions about service quality and locate in the map the most likely points to settle down new acts or episodes for implementing them.

Building the presented tool requires a detailed comprehension of the service process, which implies using traditional mapping tools available to service organization managers. Then, the RPM does not overlay these diagram tools; actually, by providing the view of how the relationship is monitored in service systems, it complements them.

Future studies could explore the integration of the Relationship Process Map (RPM) with Service Blueprinting to provide a more comprehensive view of customer interactions throughout the service cycle. While the Service Blueprint focuses on mapping the operational processes and interactions between service providers and customers, the RPM can add an additional layer by analyzing how these interactions affect the long-term customer relationship. This combination may help managers not only identify service fail points but also strengthen customer loyalty by understanding the relational dynamics involved.

This document has its limitations despite the contributions it makes. Firstly, the proposed tool is only suitable for services that require a relationship between the company and its customers. Secondly, it is unsuitable for services with much variability in their processes. Lastly, the tool has only been applied to a limited number of cases. It, therefore, needs to be expanded and improved for more cases in different contexts to achieve a greater degree of generalization.

Future studies can be suggested concerning the development of the RPM. Tools for developing services have generally been developed using qualitative methods, as was the case with the RPM tool presented in this article. Given the digitization of services, customer behavior and events during a service can be collected as historical data. With the wealth of data, service processes can be identified and analyzed effectively and accurately with analytical methods such as data and process mining. This approach can extract realistic and practical insights and information to aid the development of the RPM tool.

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