Success factors of Service innovation: a qualitative study of the development of complex service in the collaborative context

Fatores de sucesso na inovação em serviços: um estudo qualitativo do desenvolvimento de complexos serviços no contexto colaborativo

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Abstract

New Service Development (NSD) has become increasingly complex, involving a network of partners that work together along the process. Several factors contribute to NSD success, but the role these factors play and their evolution along the different stages of the NSD process are not well understood. This paper presents the results of a qualitative study of four shopping mall projects in different stages of the NSD process. This study analyzes how NSD success factors evolve along its different stages from the perspectives of both developer company and partners in the network. The study results indicate that some NSD success factors cross cut all stages of the process, whereas other change. Study findings also show that NSD success factors are viewed differently from developer and partner companies. These findings indicate that networks should evolve along the NSD project.
Keywords: New service development. Critical factors. Networks.

Resumo

O Desenvolvimento de Novos Serviços (DNS) tem se tornado cada vez mais complexo, envolvendo uma rede de empresas parceiras que trabalham em conjunto ao longo de todo o processo de DNS. Vários fatores contribuem para o sucesso do DNS, mas o papel que estes fatores desempenham bem como a sua evolução ao longo das diferentes fases do processo, ainda não são bem compreendidos. Este artigo apresenta os resultados de um estudo qualitativo em quatro projetos de shopping centers em diferentes estágios do processo de desenvolvimento. Este estudo analisa como os fatores críticos de sucesso evoluem ao longo das diferentes fases do DNS a partir das perspectivas tanto da empresa desenvolvedora e parceiras na rede. Os resultados do estudo indicam que alguns fatores de sucesso cortam todas as fases do processo, enquanto que outros são específicos de cada única fase. Os resultados do estudo mostram também que os fatores de sucesso do DNS são vistos diferentemente pela empresa desenvolvedora e pelas parceiras. Esses resultados indicam que as redes devem evoluir ao longo de complexos projetos de DNS.
Palavras-chave: Desenvolvimento de novos serviços. Fatores críticos. Redes.

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Introduction

During the two last decades, the deregulation and globalization of markets has made competition among service companies extremely fierce. These trends place service innovation at the heart of the company´s competitiveness, as constant adaptation in a turbulent environment requires a continuous flow of new offerings (STEVENS; DIMITRIADIS, 2005).

Services are now at the center of economic activity (MANSURY; LOVE, 2008) and New Service Development (NSD) has gained increased attention (STEVENS; DIMITRIADIS, 2005). In this context, it becomes more relevant to promote global service research agendas that concomitantly draw on the interdisciplinary perspective of academics and business executives.

NSD, such as the development of large shopping malls, is complex process that involves several stages, from idea generation to launch of a new service (EDVARDSSON; GUSTAFSSON et al., 2000). Given the complexity involved in this NSD process, these stages can be carried out by a single company or by a network of partner companies (VALKEAPAA et al., 2006). Such collaboration among companies has been studied under the Collaborative Network (CN) framework (CAMARINHA-MATOS, 2008).

Most of the existing literature addresses CN and the NSD process separately, but few studies address NSD in the CN context. This paper presents the results of a qualitative study of critical factors of the NSD process along its different stages in the context of CN. This study contributes to understand how CN can potentiate NSD and how NSD success factors change along its stages. These results contribute for integrating CN and NSD research to cope with the new challenges of large NSD projects.

This paper presents a qualitative study of the NSD process conducted in the CN context, which is characterized by different types of relationships between the companies involved along the different stages of the process. The research objectives were threefold: (a) Understand the New Service Development process in large projects involving CN; (b) Identify NSD success factors and understand how they evolve along its different stages; and (c) Generate recommendations for the management of collaborative Networks in the context of NSD.

Literature Review

New service development

New Service Development (NSD) can be defined as the "set of activities, actions, tasks, and evaluations that move the project from idea stage through launch". (COOPER; EASINGWOOD et al.; 1994, p.238).

Many approaches to the NSD process still stem from the New Product Development (NPD) field (SCHEUING; JOHNSON, 1993; AKAMAVI, 2005), but they require adaptations to the service context. Several authors advocate that NSD should follow a structured process, including a set of activities, which are done in a sequential or parallel way (ALAM; PERRY, 2002;TAX; STUART, 1997).

Edvardsson et al. (2000) model for the NSD process comprises four generic stages: (1) Service idea generation; (2) Service Strategy and Cultural gate; (3) Service Design; and (4) Service Policy Deployment and Implementation.

A remarkable number of researchers have attempted to identify factors that are crucial for the success of NSD. These factors can be divided into internal and external success factors (OJANEN; LANNE et al., 2008). Internal success factors are associated with the strengths and weaknesses of the firm, such as Innovation, competence of the organization or design of the company's NSD process (FROEHLE; ROTH et al., 2000; VARGO; LUSCH, 2004).

External success factors, in turn, are related to the way the benefits of the new service address the opportunities and threats in the market environment. These include, for example, the fit between customer needs and benefits of the service offer, as well as the fit between the new service and the existing product portfolio (VARGO; LUSCH, 2004).

The NSD has become more complex given the intra and extra-organizational relationship network which is necessary to manage (ALBRECHT; 2000). Studies in the last two decades have revealed that many factors of success and failure in NSD do not significantly differ from the influencing factors in New Product Development (NPD), such as: product characteristics, market orientation (JAW; LO et al., 2010), the strategic focus on innovation (EDVARDSSON; HAGLUND et al., 1995; JOHNE; STOREY, 1998), appropriate resource commitment (EDGETT, 1994; JONG, 2003), or management support (MARTIN JUNIOR; HORNE, 1995). However, the typical service characteristics: intangibility, heterogeneity, inseparability and perishability may have a significant influence on the emphasis of these critical factors in NSD (OJANEN; LANNE et al., 2008).

Extant research has studied the importance of the above actors for NSD success. However, previous studies have not analyzed NSD factors in the CN context, or how these factors evolve through the different stages of the NSD process.

Collaborative networks

A collaborative network (CN) is created by several entities (e.g., organizations and people) that are largely autonomous, geographically distributed, and heterogeneous in terms of their operating environment, culture, social capital, and goals (CAMARINHA-MATOS, 2008). These entities collaborate to better achieve common or compatible goals (LEWIS, 1992; ROSENFELD, 1997).

CN can be formed by organizations through partnerships, virtual teams or strategic agreement, in which companies deliberately decide to start a specific common project, although they remain independent after a contract (LIPNACK; STAMPS, 1994).

Previous research indicates that only one in each five organizations have pre-established orientations to maintain relationship network success (AUSTIN, 2000). A formal management of this process is still hard to find, and is seldom effective. These studies show that network management requires a relationship with exchange of the value, ideas and trust, that can build a strong commitment among all partners involved in the CN and not only business administration.

Network management therefore assumes an essential role in long term relationship success, capable of allowing partners to obtain top performance and a sustainable competitive advantage, and ensuring success of NSD projects (AUSTIN, 2000).

Based on extant research, critical factors for the management of Collaborative Networks can be classified along two different dimensions: (a) developer's and partner companies' factors and (b) network relationship's factors. Regarding companies' factors it is important to note that some of the factors are shared by developer and partner companies whereas other factors are different.

The CNs need further research, given the crucial role they play in the NSD performance and service success. Extant literature addresses collaborative networks and critical factors in the NSD process separately, but these two areas are not well connected. Further research is needed to identify how CN can promote the NSD process along its different stages.

Methodology

The management of CN in the NSD context is a complex and new research area. The present study adopted qualitative research (SAMPIERI; COLLADO et al., 2006), as it is considered

adequate to provide an in-depth understanding of novel phenomena. The research started with an exploratory study involving four large shopping mall projects. These projects were selected to cover four stages of the NSD process: (1) idea generation and conceptual project development (early stages), (2) Construction, (3) Launch and (4) Operation. These shopping malls represented large NSD projects involving a network of partners, and each one was in a different stage of the NSD process.

The research comprised two main stages: The first exploratory stage involved a preliminary study of the four projects of a company that runs an international chain of shopping malls. This study aimed to understand the main NSD stages and the CN developed along these stages. The second research stage involved a qualitative study with companies involved in the CN of the different NSD projects. This study aimed to get an in-depth understanding of NSD factors along its different stages.

Exploratory study

The study followed a Grounded Theory (CHARMAZ; 2006) approach as it is well suited to deepen the knowledge about a specific phenomenon and develop theories. This approach is also adequate when the research questions are not very specified since the beginning but they will improve through the research development.

The objective of this exploratory study (SAMPIERI; COLLADO et al., 2006) was to characterize the main stages and to analyze when and how CN were formed along this process.

The NSD projects under study were located in Portugal and Brazil, and each one was in a different NSD stage: CN (1) idea generation and conceptual project development (early stages) (Brazil), (2) Construction Stage (Portugal), (3) Launch Stage (Portugal) and (4) Operation Stage (Brazil). The first project covered the first two phases of the NSD process, as the activities were undertaken almost simultaneously and in close connection, as is shown in figure (1).

Figure 1 - NSD stages vs projects

Source: Developed by author

Qualitative study
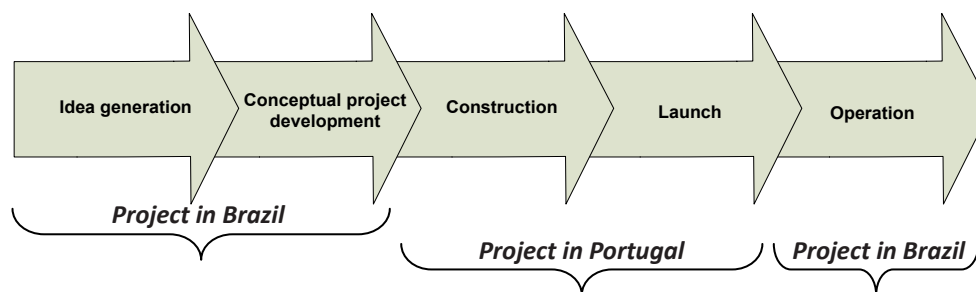
For each project, the sample covered the companies that were considered key partners for the NSD project by the developer company. Data collection involved interviews with developer and partner managers, observation and analysis of reports.

The second research phase involved in-depth interviews with managers of both developer and partner companies, which were previously defined in the exploratory study. Data collection through

interviews was completed through observation of the partner company selection process. An analysis of documents was also conducted such as: partnerships contracts, technical standards, environmental standards, information systems manuals, and services' conceptual projects. The qualitative study involved a total of 39 interviews with managers of the developer company and partners in the NSD process.

The interviews covered the following topics: the NSD process; the critical factors for NSD process success; the selection process of partners that take part of the Collaborative Networks and the key characteristics of the partner companies involved in the NSD process. Following qualitative methods (CHARMAZ, 2006) interviews were tape recorded, literally transcribed and analyzed with the support of the Nvivo software. Data were categorized in an iterative process, based on the research objectives: (1) NSD stages; (2) NSD success factors and their evolution along the NSD stages (3) Collaborative Networks in the NSD process. Data analysis allowed for an in-depth understanding of the process of network management in NSD, from both partners' and developer's perspectives. This step identified and described a rich set of factors that influence NSD performance along the different stages.
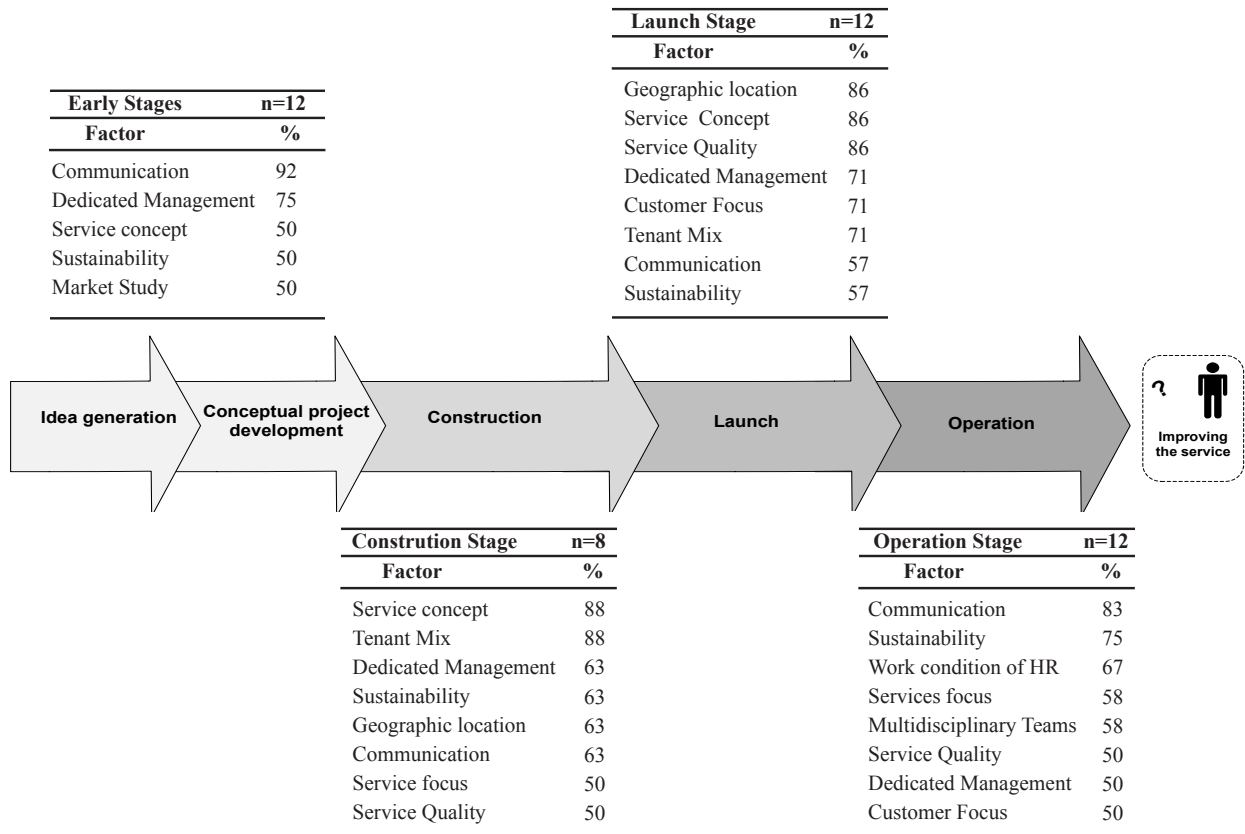
NSD process pointed out by the interviewees are presented in Table 1, detailing the factors identified in the four shopping malls in the all NSD stages.

Table 1 - NSD critical factors

NSD Critical factors	
Communication	77%
Dedicated Management	64%
Sustainability/certifications	62%
Service Concept	59%
Geographic location	46%
Service Focus	44%
Service Quality	44%
Tenant mix	44%
Service Quality	44%
Multidisciplinary teams	39%
Customer Focus	36%
Work conditions of HR	33%
Market Study	33%
Flexibility	33%

Source: Developed by author

Results

The qualitative results allowed for (1) understanding NSD success factors and analyzing how these factors evolve across different NSD stages, (2) identifying CN success factors in the context of NSD projects and analyze how they evolve along NSD stages.

New service development (NSD) success factors

The exploratory study identified five main stages in the NSD process, as shown in Figure 1. Data analysis also allowed for an understanding of the most important factors for NSD projects along the different stages. The critical factors for the

If we analyze these factors by stages, the study shows that some factors cut across all stages of NSD, such as communication, dedicated management, service concept and sustainability. However, the relevance of these factors changes along these different stages. The results also indicate that some factors are specific to each single stage, such as: market study in the early stage; tenant mix and geographic location in the construction stage; service quality and customer focus in the launch stage, and work condition of Human Resources and Multidisciplinary Teams in the operational stage of the NSD process.

Figure 2 - New service development process and critical factors by stage

Early Stages	n=12
Factor	**%**
Communication	92
Dedicated Management	75
Service concept	50
Sustainability	50
Market Study	50

Launch Stage	n=12
Factor	**%**
Geographic location	86
Service Concept	86
Service Quality	86
Dedicated Management	71
Customer Focus	71
Tenant Mix	71
Communication	57
Sustainability	57

Process arrows: Idea generation → Conceptual project development → Construction → Launch → Operation → Improving the service

Constrution Stage	n=8
Factor	**%**
Service concept	88
Tenant Mix	88
Dedicated Management	63
Sustainability	63
Geographic location	63
Communication	63
Service focus	50
Service Quality	50

Operation Stage	n=12
Factor	**%**
Communication	83
Sustainability	75
Work condition of HR	67
Services focus	58
Multidisciplinary Teams	58
Service Quality	50
Dedicated Management	50
Customer Focus	50

Source: Developed by author

The results presented in Figure 2 indicate an evolution of success factors across the stages of the NSD process. Communication is the most referred NSD success factor. Communication involves the transmission and understanding of the information between all the parts involved in the NSD. According to interviewees, the communication process should be well structured and cover all partners involved in the NSD process. The *communication* factor was mentioned in all stages of the process, with more emphasis in the early stages and operational stage. In the early stages the development is mainly undertaken *"in-house"*, but managers involved in this stage are in different parts of the world, which requires a close coordination.

In the operational stage, all stakeholders (e.g tenants, customers, supply, and so on) interact directly in the same physical environment, that is, shopping mall. Thus, communication is essential for a good coordination of all development activities by partner companies. According to the developer company's manager:

> The development of a shopping mall is a complex and interactive process, as there are several subjects that could interact […] all the workers need to speak, share opinions in order to be able to show their needs possibilities and in this way a new product and service 'is born' with harmony. (Developer company's manager)

Dedicated management is also relevant in all stages, due to the number of the activities and tasks

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that need to be managed intra and extra organization. Dedicated management corresponds to the existence of a specific team to manage each new project. This team should be full time dedicated to the project without shared management on several projects at the same time. Having an exclusive and dedicated management can improve the NSD process, minimizing risks and assuring that all projects targets are met. This factor assumes an essential role to develop a structured coordination for the NSD process and to achieve some NSD goals, such as project deadlines, in order to make possible that the new service could be created in harmony and in the planed time.

> […] I truly believe that the success and non success is linked with the quality of the shopping mall management. The developer company of this service – shopping mall - is a great manager and this is mandatory for the success of the shopping mall. (Partner company´s manager).

Sustainability was pointed out in all stages of the NSD process. Sustainability is an increasingly important factor because it involves the environment and the planet's future welfare. This factor is related to the actions and processes to be developed by companies in the context of their activities and how these actions can help to preserve the environment. The companies involved in the NSD consider that actions related to the environment are very important. For these companies, environmental practices are already required for the companies' operation and will be a key factor for a client's choice of service providers. According to the partner company's manager:

> Undoubtedly, the sustainability question is very important [...]. Nowadays the actions related to sustainability are more frequent than years ago and tend to increase. Before there was smaller concern in this way, however in the future it will be a key factor to contract a company. (Partner company´s manager)

Service concept is another important factor highly mentioned in all the stages except when the service is already in operation. Service concept relates to a clear vision and description of customer needs and how these are to be satisfied through the service offering. A clear service Concept is crucial at the initial stages to guide the NSD efforts. In the operational stage, the service concept is clearer and is more difficult to change. In this way, the fit between customers' needs and concept services design since the process beginning is crucial. According to a partner company's manager:

> Besides being the developer company pioneer in this sector, the shopping malls that are constructed since the first stage are also different, they adapt to the local characteristics, with different lighting, colorful, that is, they have an attractive concept which makes the customer to be attracted by the place. (Partner company´s manager).

Whereas the previous factors appear in more than one stage, other factors are specific of a single stage. *Market study* was only mentioned in the early stages of the process. Market study is a very important factor in the new service project because it involves some activities that provide information like, customer needs, market trends, competitiveness, and so on. In the subsequent phases of NSD, this factor becomes less relevant as the service concept becomes defined.

> The success of the entrepreneurship in the first place is linked with a perfect acknowledgment of the target public […] 60% of new entrepreneurships fail because the market research is not well structured and is not concerned with the final product. (Partner company´s manager).

Tenant mix is mentioned in the construction stage. This factor involves the selection process of the services that will be offered in the shopping mall, such as: stores, restaurants, cinema, supermarket, and other services. The service diversity inside the shopping mall becomes a decisive factor for the customer preference, since the greater the mix service the greater is the possibility of the customer satisfaction and by consequence the service success.

According to the partner company's manager:

> The tenant mix is one of the Developer Company characteristics, the store mix is very good and it's difficult to find a shopping that invests in brands and service type diversification. (Partner's company Manager).

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The *Geographic location* is very important from the customer's point of view, being a decisive factor for the clients to choose a shopping mall. This factor covers characteristics such as: facility access (for instance: public transport and access streets). As stated by a partner company's manager:

> What the company is offering the customer could be an excellent product, but if it is wrongly located and out of reach, the probability of a failure is bigger. (Partner's company Manager)

In the launch and operation stages, *service quality* and *customer focus* factors were highly mentioned as important because they involve the fit between the service provided and customer expectations, which is noticed by the customers at the mom of launching the service in the market place a providing the service in the operation stage.

Multidisciplinary teams were mentioned the service operation stage. According to developer company, having multidisciplinary are to manage the service operation stage is import due to customer heterogeneity. In this way, coveri different points of view to respond to customer nee makes the service management easier. According the developer company's manager:

> Considering teams, it is better to have a mixed gro You cannot have a trained staff with the same opin and educational basis; the more mixed the better a work team. Here we have business administrat mechatronic engineers, biologists, etc. and diversification is very important to understand satisfy customer needs. (Developer compan manager)

Employees' work conditions were also poin out as important in the operational stage. Fr the interviewees' perspective, when the compa offers good working conditions, employees become more motivated to offer a good serv for the customers and will contribute for busin success. This factor becomes increasingly criti in the operational stage. According to the part company's manager:

> At the beginning of a new service, we were use focus a lot on how to operate the machines and so and with the advance of technology we focused on abilities of the workers, that is, the human relationsl

and the working conditions of the employees […]. Nowadays in the company the employees are more and more valued and offering them good work conditions is very important. (Partners company´s manager).

The study results also allowed for comparing the perspectives of developer and partner companies in terms of NSD success factors. As shown in table 2, developer and partner companies refer to the same NSD success factors.

Table 2 - NSD critical factors of the different point-of-views: developers' and Partner's perspective

NSD Critical factors	Developer perspective (n=14)
Communication	79%
Dedicated Management	71%
Sustainability	71%
Service Concept	71%
Customers focus	50%
Service Focus	50%
Tenant mix	50%
Service Quality	50%
Multidisciplinary teams	43%
Market Study	43%

NSD Critical factors	Partner perspective (n=25)
Communication	75%
Dedicated Magagement	63%
Geographic Location	54%
Sustenability	54%
Service Concept	50%
Tenant mix	42%

Source: Developed by author

Based on table 2, the Developer's and Partners' Company shared a similar vision about some

factors that influence the NSD process. For both the critical factors that most influence the NSD process performances are: communication, dedicated management, sustainability and service concept. This vision shared between companies is very important to successful collaboration and by consequence the NSD success (CAMARINHA-MATOS, 2008).

Previous empirical studies found that different factors affect NSD and show that some factors become determinant for the NSD success (JAW; LO et al., 2010). From this research we can confirm some factors that influence the NSD performance, such as communication, market study, quality service and service focus. However, new factors arise like sustainability, dedicated management, geographic location, and tenant mix. These findings indicate that these factors should be well defined and managed before starting the NSD process, since they have a strong impact on NSD performance.

Conclusion

This qualitative study identified the stages of NSD processes, the critical factors related to these processes, as well as evolution these factors along NSD stages and how these success factors could influence NSD performance.

The results obtained allowed the understanding of some of the involved factors in the NSD process, which are critical in all the phases. However, when compared to extant research, new factors arise, such as the sustainability, Geographic Location and welfare of the employees, which are often emphasized throughout the interviews.

The study also shows that some factors are specific of partners or developer companies perspectives, although there were some factors that could be shared between the participating companies in a way to prevent cultural conflicts and a distinct vision of the service. This helps avoiding disagreements in the relationship which could harm

the NSD process. The study results indicate that the developer company should establish specific criteria for the selection of the companies which will be part of the collaborative network and will directly collaborate in the NSD process.

Based on results, this research contributes to understand the NSD stages process, to indentify the factors that drive NSD process success and how these factors evolve across NSD stages. Thus, these results contribute for better understanding of the success factors of the NSD research to cope with the new challenges of large NSD projects.

Further work we will start a quantitative study that involves the analysis of the survey questionnaire to validate the importance of the identified factors in this qualitative stage with all the coworkers of the involved companies in the research.

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