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Critical success factors in a project handover and use stages: The case of the gambling industry in Antioquia (Colombia)

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Abstract

This research explores the Critical Success Factors (CSF) for the handover and use stages of projects in the case of one of the most important companies in the gambling sector in Antioquia (Colombia). It develops a model with seven categories and an instrument that measures perception regarding success factors. The results show a difference between successful and unsuccessful projects for all the categories that were analyzed. However, the categories «Project Efficiency» and «Benefit Realization» are the main critical success factors. It also confirms that success factors differ according to the perspective of each type of stakeholder: sponsors, managers, project team, customers, and end users. This study contributes empirical evidence for critical success factors in project management from four perspectives: 1) at the handover and use stages; 2) from the perspective of different stakeholders; 3) in the gambling industry; and 4) in a developing country, such as Colombia. Finally, it can be concluded that the value that is given to new knowledge and experiences in successful and unsuccessful projects is an opportunity to create a knowledge management system, which allows to generate a favorable culture for the development of different types of projects in the company.

Keywords: project management; critical success factors; knowledge management; project life cycle; gaming industry; gambling industry.

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Factores críticos de éxito en las etapas de entrega y utilización de proyectos: el caso de la industria de juegos de suerte y azar en Antioquia (Colombia)

Resumen

Esta investigación explora los Factores Críticos de Éxito (FCE) para las etapas de entrega y utilización de proyectos en el caso de una de las más importantes empresas del sector de juegos de suerte y azar en Antioquia (Colombia). Desarrolla un modelo con siete categorías y un instrumento que mide la percepción acerca de los factores de éxito. Los resultados muestran diferencia entre los proyectos exitosos y no exitosos para todas las categorías analizadas. Sin embargo, las categorías «Eficiencia del Proyecto» y «Realización de beneficios» son los principales factores críticos de éxito. También, confirma que los factores de éxito difieren de acuerdo con la perspectiva de cada tipo de parte interesada: patrocinadores, gerentes, equipo del proyecto, clientes y usuarios finales. Este estudio contribuye con evidencia empírica para los factores críticos de éxito en la gerencia de proyectos desde cuatro perspectivas: 1) en las etapas de entrega y utilización; 2) desde la perspectiva de los diferentes interesados; 3) en la industria de los juegos de suerte y azar; y 4) en un país en desarrollo, como es Colombia. Finalmente se puede concluir que el valor que se le da a los nuevos conocimientos y experiencias en proyectos exitosos y proyectos sin éxito, es una oportunidad para crear un sistema de gestión del conocimiento, que permite generar una cultura favorable para el desarrollo de los diferentes tipos de proyectos en la empresa.

Palabras clave: gerencia de proyectos; factores críticos de éxito; gestión del conocimiento; ciclo de vida de los proyectos; industria de los juegos de suerte; industria de los juegos de azar.

Fatores críticos de sucesso nas etapas de entrega e utilização de projetos: o caso da indústria de jogos de azar em Antioquia (Colômbia)

Resumo

Esta pesquisa explora os Fatores Críticos de Sucesso (FCE) para as etapas de entrega e utilização de projetos no caso de uma das mais importantes empresas do setor de jogos de azar em Antioquia (Colômbia). Desenvolve um modelo com sete categorias e um instrumento que mede a percepção a respeito dos fatores de sucesso. Os resultados mostram diferença entre os projetos exitosos e não exitosos para todas as categorias analisadas. No entanto, as categorias «Eficiência do Projeto» e «Realização de benefícios» são os principais fatores críticos de sucesso. Também confirma que os fatores de sucesso diferem de acordo com a perspectiva de cada tipo de parte interessada: patrocinadores, gerentes, equipe do projeto, clientes e usuários finais. Este estudo contribui com evidência empírica para os fatores críticos de sucesso na gerência de projetos desde quatro perspectivas: 1) nas etapas de entrega e utilização; 2) a partir da perspectiva dos diferentes interessados; 3) na indústria dos jogos de azar e casualidade; e 4) em um país em desenvolvimento, como é a Colômbia. Finalmente pode ser concluído que o valor dado aos novos conhecimentos e experiências em projetos exitosos e projetos sem sucesso, é uma oportunidade para criar um sistema de gerenciamento do conhecimento, que permite gerar uma cultura favorável para o desenvolvimento dos diferentes tipos de projetos na empresa.

Palavras chave: gerencia de projetos; fatores críticos de sucesso; gerenciamento do conhecimento; ciclo de vida dos projetos; indústria dos jogos de azar.

Facteurs clés de succès lors de la phase de remise de projet: le cas de l'industrie du jeu de hasard à Antioquia (Colombie)

Résumé

Cette investigation explore les facteurs clés de succès (FCS) de la phase de remise et d'utilisation de projet de l'une des plus importantes entreprises du secteur des jeux de hasard de la región d'Antioquia (Colombie). Nous proposons un modèle composé de sept catégories et d'un instrument de mesure de la perception des facteurs clés de succès. Les résultats mettent en évidence les différences entre projets réussis et non réussis pour toutes les catégories analysées. Nous constatons que les catégories «Efficacité du projet» et «Avantages Compétitifs» sont les principaux facteurs clés de succès succeptibles de changement en fonction des perspectives de chaque partie prenante: sponsors, managers, équipe de projet, clients et utilisateurs finaux. Cette étude offre des preuves empiriques des facteurs clés de succès pour la gestion de projet sous quatre perspectives: 1) lors des étapes de remise et d'utilisation; 2) du point de vue des différentes parties prenantes; 3) pour l'industrie des jeux de hasard; 4) dans un pays en développement comme la Colombie. Nous concluons que l'importance de la valeur des connaissances acquises lors de projets réussis ou infructueux permet de créer un système de gestion des connaissances pouvant générer une culture positive et favorable au développement de nouveaux types de projets dans l'entreprise.

Mots-clés: gestion de projet; facteurs clés de succès; gestion des connaissances; cycle de vie d'un projet; industrie des jeux de hasard; industrie du jeu.

1. Introduction

Millions of projects are managed worldwide on a daily basis. It is possible to find projects that range from those of high complexity with high resource requirements to the simplest ones with low requirements. In any economic system, the resources or organizational capacity are scarce and therefore, it is essential to strive for the success of each project, encouraging organizations to meet their objectives (Jitpaiboon, Smith, & Gu, 2019; Joslin & Müller, 2016). It is for this reason that in recent decades, project success factors and criteria have become important topics of study (Albert, Balve, & Spang, 2017; Cooke-Davies, 2002; Jitpaiboon *et al.*, 2019; Syed, Bandara, French, & Stewart, 2018).

The variables affecting the success of a project have been analyzed from a global perspective, considering the entire life cycle of the project (Berssaneti & Carvalho, 2015; Chou & Pramudawardhani, 2015; Cserháti & Szabó, 2014; Wan & Ramly, 2006). Some studies take into account the particularities of each stage of the life cycle —conception, planning, production, handover, use, and closure— when analyzing project success (Munns & Bjeirmi, 1996). At the planning and production stages, the approach that has prevailed in the literature is efficiency in project management; thus, success is measured with the so-called Iron Triangle —Time, Cost, and Quality— (Atkinson, 1999). The interest in other life cycle stages is more recent (Jugdev & Moller, 2006); and it was not possible to identify a specific study on the stages of handover and use. In fact, Albert *et al.* (2017) draw attention to the need to establish the relationship between the criteria of success and the different phases of the project as to respond to those aspects that are critical in each stage for the different stakeholders involved and, thus, to properly manage each of them in order to increase the probability of their success, therefore, the success of the project as a whole.

Moreover, the study on project success observes the existence of a bias towards certain sectors (Albert *et al.*, 2017), such as construction, new-product development, software development, and aerospace and military projects (Al-Tmeemy, Abdul-Rahman, & Harun, 2011; Ángel, 2010; Bao, Peng, Ablanedo-Rosas, & Gao, 2015; Chou & Pramudawardhani, 2015; Demirkesen & Arditi, 2015; Diez-Silva, Pérez-Ezcurdia, Pérez-Ramos, & Montes-Guerra, 2013; Duffield & Whitty, 2015; Gallego & Hernández, 2015; Heravi, Coffey, & Trigunarsyah, 2015; Morales, Corredor, Paba, & Pacheco, 2014; Pantoja, Collazos, & Penichet, 2013; Serrador & Pinto, 2015; Stettina & Hörz, 2015; Tuñón, Jaen, & Coronado, 2005; Wateridge, 1998; Yu & Leung, 2015). Nevertheless, there are a variety of factors that either contribute or impede the success of the project, and it is possible that the success factors may be different in each industry (Albert *et al.*, 2017). Additionally, most studies were conducted in the United States, Canada, Australia, China, Malaysia, Israel, and some European countries, and few studies in other geographical areas.

This article aims to contribute to the understanding of critical success factors in the stages of handover and use from the perspective of stakeholders. In order to achieve the objective, this study analyzes the case of one of the most representative companies of the gambling industry in Antioquia: Réditos Empresariales group (Réditos group), which has 75% of the gambling market in this region. Ultimately, this study seeks to answer the following questions: a) what critical success factors (CSFs) are applicable to the handover and use stages of projects in the gambling industry? b) Are there differences between these CSFs from the perspective of the various stakeholders?

The document is structured as follows: the subsequent section shows the main concepts and the review on success factors in the handover and utilization stages used in this study; followed by the methodological section that presents the analyzed firm, the collection instrument, and the empirical study. Finally, the results, discussion, and conclusion sections are developed.

2. Theoretical background

2.1 Project success

It is not easy to define success. It is conditioned by the different types of projects, perspectives, and stages, and can be defined in absolute or relative terms (de Carvalho, Patah, & de Souza, 2015).

There are two perspectives on project success in the literature (Joslin & Müller, 2016). On the one hand, some authors focused on the analysis of «project management success» considering those practices and factors that are associated with planning, organizing, monitoring, and controlling activities, and facilitating the achievement of the objective of the project, while meeting the criteria of compliance with budgets, deadlines, and quality. On the other hand, some authors focused on analyzing «project success» in terms of a broader and more complex concept that incorporates the perception of success from the point of view of the stakeholders (Davis, 2014; Wan & Ramly, 2006); thus, the success of a project will depend on whether the objectives for which the project was formulated are achieved and whether the expectations of all the stakeholders are accomplished (Wan & Ramly, 2006).

2.2 Project life cycle and stakeholders

Although there are several proposals on the project life cycle, the six-stage vision proposed by Munns and Bjeirmi (1996), was adopted to develop this work. It is considered strategic because it makes a clear connection between the use of the developed product and its organizational benefit (Jugdev & Moller, 2006). According to these authors, projects begin with an idea and the formulation of the associated project in a stage known as «conception». Subsequently, projects move to a «planning» stage in which the method for achieving the original idea is defined and the route to be followed is designed. «Production» is the stage where the plans become reality; it is at this stage that the product or service that the client has requested is developed. Then, the «handover» stage begins. In this stage the company delivers the product to the client, who then verifies that the product or service that was delivered complies with the initial requirements. The «use» stage is when the client uses the product and the project manager accompanies him and observes his initial interaction with the product and obtains a complete evaluation. Finally, «closure» is the stage where project is completed and dismantled. The development of all of these stages, in a joint and harmonized way, will determine the success or failure of the project (Yalegama, Chileshe, & Ma, 2016).

A project has different stakeholders. According to Davis (2014), these can be grouped into three categories. The first group is the Senior Management, which constitutes the owners and/or managers at the highest level of the organization. These are the people who approve the project and its budget. The second group is the Core Project Team. These are the people who are directly involved in the development of the project. Lastly, the Project Recipient is the client or end user, who is supposed to benefit from the project.

2.3 Success factors

There are numerous factors that can affect the success of a project during its different stages. In the case of the handover and use stages, 39 articles were analyzed[3] by

[3] The literature review was carried out using the Scopus and Science Direct databases, using the following keywords in the searches: «project success», «project success factors», «project handover», «project delivery», «project utilization», «project life cycle», «critical success factors»,«éxito de proyectos» and [«project handover»?] "factores críticos de éxito» [«post-project evaluation»?]. Initially, 83 articles were identified; after reading the titles and abstracts, only 39 articles were considered relevant for the purpose of the present study.

means of a literature review and 37 critical success factors were identified. After a qualitative analysis of the identified factors, only 27 were considered applicable to the case of the gambling industry, which were synthesized into a model composed of seven categories: project efficiency, the realization of benefits, communications within the project, strategic project environment, project management practices, project team, and external project environment.

2.3.1 Project efficiency.

This is a very important category in the handover and use stages (Davis, 2016). Handover is the moment when the project is evaluated according to its requirements. This stage usually consists of a meeting between the project team and the client to check that the development meets the requirements, where joint tests and others processes are carried out in order to verify that the product is ready to be implemented (Badewi, 2016; Cserháti & Szabó, 2014; Serrador & Pinto, 2015). The use stage is also important as the factor that is considered here is whether the project meets the timeline and budget that was allocated or not (Badewi, 2016; Mir & Pinnington, 2014; Rodríguez-Segura *et al.*, 2016; Serrador & Turner, 2014). This category also includes the efficient start-end factor, which seeks to generate benefits by completing the project in a timely manner, thus reducing production time and taking advantage of market opportunities especially during the early stages, with the aim of reaching the operations stage as soon as possible (Heising, 2012).

2.3.2 Benefits realization.

This category includes the following factors: the realization of benefits (Cserháti & Szabó, 2014; Davis, 2016; Rodríguez-Segura *et al.*, 2016; Williams *et al.*, 2015); stakeholder satisfaction (Cserháti & Szabó, 2014; Davis, 2016; Haverila & Fehr, 2016; Serrador & Turner, 2014); and the use of the finished product/ acceptance (Davis, 2014). These factors determine the success of the project, based on the achievement of its objectives, whether in market generation (Cserháti & Szabó, 2014; Mir & Pinnington, 2014), return on investment (Badewi, 2016), use of the final product, and/or satisfaction of the interested parties (Davis, 2016; Williams *et al.*, 2015). The latter category is relevant in the handover and use stages because it will only be possible to know whether these expectations were met and whether the stakeholders are satisfied with the project results during these stages of the project life cycle (Cserháti & Szabó, 2014; Haverila & Fehr, 2016; Serrador & Turner, 2014; Williams *et al.*, 2015). Stakeholder satisfaction, especially that of the client, is the final acceptance of the product (Davis, 2014), so this factor is included in this group of categories. Satisfaction varies according to the stakeholders and the stages of the project; therefore, the elements that make up the realization of benefits are measurable and allow comparisons between projects. In summary, this category attempts to group together those elements that are oriented towards the commercial success of the project and that have a visible impact on the stakeholders.

2.3.3 Project management practices.

The factors that are grouped in this category include: project management maturity (Berssaneti & Carvalho, 2015; Cserháti & Szabó, 2014; Rodríguez-Segura *et al.*, 2016), project governance (Joslin & Müller, 2016), project complexity (Gallego & Hernández, 2015; Serrador & Pinto, 2015), technical aspects (Davis, 2016; Pinto & Slevin, 1987), monitoring/ control (Davis, 2016; Ika, 2015; Yalegama *et al.*, 2016), implementation method (Davis, 2016; Yalegama *et al.*, 2016), and training (Khan & Rasheed, 2015). These management practices can be applied throughout the entire project life cycle; they also play an important role in the handover and use stages because all the staff must know what the final product will be (Khan & Rasheed, 2015), as well as what the benefits for the organization and its members are. These management practices are also important because they focus on the efficient and effective use of resources (Joslin & Müller, 2016; Liu, Wang, & Wilkinson, 2016), the monitoring of results to see whether or not they are in line with the project, the selection of the best implementation method (Yalegama *et al.*, 2016) according to the necessities of the client, the complexity of the project, and the

conditions of the company; to finally establish the control and monitoring measures (Badewi, 2016; Ika, 2015) that are needed to identify any difficulties that may arise during these two stages. It is important to implement centralized and knowledgeable management practices to projects in the gambling sector because this generates order and control, avoids duplication of effort, and optimizes the allocation of resources.

2.3.4 Communications.

This category groups four factors: Communications (Cserháti & Szabó, 2014; Yalegama *et al.*, 2016), end-user-customer relations (Davis, 2016; Williams *et al.*, 2015), stakeholder management (Mazur *et al.*, 2014), and knowledge transfer (Williams *et al.*, 2015; Zhao, Zuo, & Deng, 2015). Communications are crucial within the handover and use stages because they enable appropriate relationships to develop between all of those involved (Cserháti & Szabó, 2014; Yalegama *et al.*, 2016). During the initial stages, the formal means of communications, their frequency, and the quality to be delivered must be defined (Pinto & Slevin, 1987). In the early stages of the project —formulation and planning—, a stakeholder matrix should be developed for use in the later stages, with the aim of cultivating relationships with the stakeholders and gaining their support in promoting the best interests for the project (Badewi, 2016). In the gambling sector, the communications system is important and relevant due to the high number of personnel and stakeholders involved.

2.3.5 Strategic environment.

This category is composed of the following factors: planning/formulation (Williams *et al.*, 2015), decision-making (Patanakul, 2015; Yalegama *et al.*, 2016), strategic fit (Cserháti & Szabó, 2014; Davis, 2014), preparing for the future (Joslin & Müller, 2016; Mir & Pinnington, 2014), and adaptability to change (Ghazimoradi, Kheyroddin, & Rezayfar, 2016; Patanakul, 2015).

This category includes aspects that point to the organizational strategy (Badewi, 2016), such as the preparation for the future and the adaptability to change. In the case of the gambling sector, this last factor is important, since this sector has been stagnating in terms of its market growth in recent years. Consequently, gambling companies have chosen to develop new projects that allow them not only to maintain growth but also to benefit all stakeholders. However, this is only possible if the project fits the strategic framework (Chih & Zwikael, 2015), and if the company has the capability to work within the defined strategy (Davis, 2016). The strategic environment is important because it defines the framework that will allow you to determine whether or not the project is successful from the organization's point of view.

2.3.6 Project team.

This category groups together two factors: staff skills (Davis, 2016; Gallego & Hernández, 2015) and the definition of roles and responsibilities (Gallego & Hernández, 2015). It is important for a project team to have the necessary skills to carry out the project, from its conception, to its planning, design, development, handover, and use, so that when it is delivered to the customers, they receive the necessary support until the operational process. Project teams are usually made up of multidisciplinary groups from the various areas in a company (Davis, 2016); this is the case of projects developed in the gambling sector. Often, the project team disburses upon completion of the handover and no responsibilities are assumed for carrying out the use stage. This makes it difficult to respond to problems that may arise during this stage. Therefore, it is important to define, in advance, the roles and responsibilities inherent in the effective completion of the handover and use stages (Gallego & Hernández, 2015).

2.3.7 External environment.

This category includes the following elements: project environment (Rodríguez-Segura *et al.*, 2016), government control (Chou & Pramudawardhani, 2015; Liu *et al.*, 2016; Yu & Leung, 2015), and shared responsibility (Chou & Pramudawardhani, 2015). In any organization, the external environment

affects projects; in particular during the handover and use stages of a sector such as gambling, projects are developed internally and the implementation process becomes knowledge of the end user and, in many cases, of a large part of the company. However, gambling is an industry that is subject to special government regulations (Chou & Pramudawardhani, 2015; Liu *et al.*, 2016; Yu & Leung, 2015), so for such a project to move forward successfully, this aspect needs to be considered and managed.

3. Methodology

Given that in the literature, CSFs in the handover and use stages in the gambling sector have not been studied, an exploratory-descriptive investigation was carried out (Rodríguez-Segura *et al.*, 2016). The case study is that of Réditos Empresariales Group. This group has more than 13,500 employees; in 2017, its operating income exceeded $USD192 million and it had more than 1.5 million registered customers. The company has two strategic business units (SBU): Gambling and Network services. Because of its activity, the company transfers resources directly to the Colombian government for the health sector, a value that in 2017 amounted to US$ 21 million.

Réditos group manages its projects from a control tower where it provides support to the strategic and administrative units involved in project management and also centralizes ideas and projects. Its managers have found that the structuring and formalization of this area in the company has improved project management performance, with particular success in the first three stages of the project life cycle: conception, planning, and production. However, it is not always possible to achieve the desired results in the handover and use stages. Therefore, it is necessary to conduct a comprehensive analysis of these subsequent stages so as to develop strategies and actions that favor the success of future initiatives. In 2016, Réditos group advanced 46 strategic projects through its project's unit, including a real estate project, an e-commerce model, a shared services center, internationalization, franchises, a monitoring center, and new product development, among others.

The following stakeholder profiles were identified in this case study: a) Project sponsor: it is part of the senior management group, and consists of the company manager and the commercial manager. They are responsible for approving projects and budgets. b) Project manager and project team: The project manager is the person who interacts directly with the sponsors. Within the company, the manager heads the strategic unit that oversees the project. The project team is made up of staff from different areas of the company, including the SBU coordinator in charge of the project, one or more employees from the project area, and one or more employees from the technology provider, among others. c) Client and end user: The client is the person who requests for a project to be developed, and the end user is the person who will use the final product. If a specific project seeks to improve internal processes, the client and the end user could be the same person.

3.1. Questionnaire

The developed questionnaire was divided into four sections. The first section collected general information about the interviewees and projects; the second section inquired about the perception of the success of each project in general, and of the handover and use stages, based on the criteria proposed by Serrador and Pinto (2015). The third section consists of 125 questions covering the seven categories developed in the theoretical background (Table 1). Finally, an open-ended question was asked in order to find out more about the success or failure of the projects to be evaluated.

Table 1. Distribution of questions by categories, scales, and authors

Category	Number of Questions	Authors	Scale
Category 1: Project efficiency	9 (Q1-Q9)	Shenhar *et al.* (2001); Diallo and Thuillier, (2004); Cohen, Ornoy and Keren (2013); Cserháti and Szabó (2014); Serrador and Pinto (2015); Badewi (2016); Haverila and Fehr (2016); Joslin and Müller (2016)	Likert scale from 1 to 5, where: 5= Completely successful, 4=Very successful, 3=Moderately successful, 2=Not very successful, and 1= Unsuccessful. N/A Not known.
Category 2: Benefits realization	20(Q10-Q29)	Shenhar *et al.* (2001); Diallo and Thuillier (2004); Cohen, Ornoy and Keren (2013); Cserháti and Szabó (2014); Serrador and Pinto (2015); Badewi (2016); Joslin and Müller (2016)	
Category 3: Project management practices	10 (Q51- Q69)	Diallo and Thuillier (2004); Masood (2010); Cserháti and Szabó (2014); Berssaneti and Carvalho (2015); Badewi (2016); Haverila and Fehr (2016); Joslin and Müller (2016)	
Category 4: Communications	17 (Q70- Q86)	Cserháti and Szabó (2014); Mazur *et al.* (2014); Berssaneti and Carvalho (2015); Williams *et al.* (2015); Haverila and Fehr (2016); Joslin and Müller (2016)	
Category 5: Strategic environment	22 (Q87-Q108)	Diallo and Thuillier (2004); Masood (2010); Cserháti and Szabó (2014); Haverila and Fehr (2016); Joslin and Müller (2016)	
Category 6: Project team	12 (Q109-Q120)	Cserháti and Szabó (2014); Mazur *et al.* (2014); Gallego and Hernández (2015); Haverila and Fehr, (2016); Joslin and Müller (2016)	Likert scale from 1 to 5, where: 5=Excellent, 4=Good, 3=Regular, 2=Poor, and 1= Very poor. N/A Not known
Category 7: External environment	5 (Q121-Q125)	Cserháti and Szabó (2014); Mazur *et al.* (2014); Joslin and Müller (2016)	Likert scale from 1 to 5, where: 5= Completely successful, 4=Very successful, 3=Moderately successful, 2=Not very successful, and 1= Unsuccessful. N/A Not known.

Source. Own elaboration.

The coordinators of the project carried out the validation of the content in the questionnaire. They evaluated the clarity of the questions and made sure that the language that was being used was common for the staff in the organization; additionally, an expert in semantics revised this instrument as the vast majority of the questions came from English-language questionnaires.

The questionnaire was administered between April 26th and May 12th, 2017. The interviewees were directors, coordinators, and project leaders in the company's project strategic business units, as well as the company's senior management. A total of 17 people answered the survey; they evaluated 17 successful projects (SP) and 16 unsuccessful projects (USP). The study included projects in marketing, new channels, new gambling products, and improvement of internal processes.

Cronbach's alpha coefficient was used with the collected data to assess the internal consistency of the categories of the instrument. George and Mallery, (2003, p. 231) suggest that values above 0.90 are excellent. In the case of this study, calculating this indicator with IBM® SPSS® Statistics v. 24, the results

are: Category 1, α=0.961; Category 2, α=0.983; Category 3, α=0.967; Category 4, α=0.976; Category 5, α=0.952; Category 6: 0.952; and Category 7, α=0.947.

The information that was obtained, was tabulated and analyzed using Microsoft Excel® software and applying descriptive statistics techniques to compare SP and USP. Finally, the proposal by Yalegama, Chileshe, and Ma (2016) was adapted for the scoring of each question and group of factors (Table 2).

Table 2. Equivalent scores of the Likert scales for the interpretation of results

Range	Likert Scale #1	Likert Scale # 2
1,00 ≥ 1,80	Unsuccessful	Very bad
1,80 ≥ 2,60	Not very successful	Bad
2,60 ≥ 3,40	Moderately successful	Regular
3,40 ≥ 4,20	Very successful	Good
4,20 ≥ 5,00	Completely successful	Excellent

Source. Prepared by the authors based on Yalegama, Chileshe, and Ma, 2016.

4. Results

The empirical study shows the differences between successful projects (SP) and unsuccessful projects (USP) in all the categories that were analyzed (Table 3); and from the perspective of the different stakeholders. The greatest differences are found in the categories of project efficiency, benefits realization, project management practices, and external environment. In the other categories, the consolidated values show that USP have a moderately successful performance.

Additionally, the scores given by the project team to all the categories evaluated for USPs are higher than those given by other stakeholders. In fact, these values allow these categories to be classified as moderately successful, ranging from 2.67 to 3.11. Even in the project team category an average of 3.58 is achieved, which means very successful. The detailed results for each of the categories that were analyzed are presented below.

Table 3. Overall results for the success factor category: Statistical means

Category	Consolidated		Team		Customer		Senior	
	SP	USP	SP	USP	SP	USP	SP	USP
Project efficiency.	4.44	2.41	4.25	2.67	4.72	1.89	4.83	1.57
Benefits realization.	4.49	2.39	4.39	2.75	4.65	1.62	4.70	1.68
Project management practices.	4.13	2.51	4.00	2.70	4.31	2.21	4.44	2.00
Communications.	4.24	2.88	4.14	3.11	4.31	2.49	4.56	2.15
Strategic environment.	4.25	2.79	4.21	2.88	4.26	2.59	4.50	2.53
Project team.	4.34	3.35	4.29	3.58	4.38	3.17	4.63	2.33
External environment.	4.39	2.53	4.28	2.71	4.15	2.33	4.50	1.30

■ Completely successful ■ Very successful □ Moderately successful □ Not very successful □ unsuccessful

Source. Own elaboration.

4.1. Project efficiency

Table 4 shows the average values for each question for the SP and USP in this category. The statements were evaluated on a Likert scale from 1 to 5, where 5=completely successful and 1=unsuccessful. It can be seen that there were differences in the scores that were obtained for all the questions in this category between the SP and the USP. The greatest difference is found in Q5, with an average score for the SP of 4.40 and for the USP of 2.00. In Q4 and Q6, the USP scores show that they were moderately successful.

Table 4. Results for category 1: project efficiency

	Consolidated		Team		Client		Senior	
Question	**SP**	**USP**	**SP**	**USP**	**SP**	**USP**	**SP**	**USP**
Q1. Budget achievement.	4.31	2.58	4.00	2.56	4.75	2.67	5.00	0.00
Q2. Schedule achievement.	4.12	2.19	3.82	2.45	4.75	2.00	4.50	1.00
Q3. Achieving Objectives / Meeting the requirements of the customer.	4.53	2.25	4.36	2.55	4.75	1.67	5.00	1.50
Q4. Quality of the Products.	4.47	2.75	4.45	3.18	4.25	1.67	5.00	2.00
Q5. Return of investment (ROI).	4.40	2.00	4.33	2.22	4.50	1.67	4.50	1.50
Q6. Resources mobilized and used as planned.	4.59	2.86	4.36	3.00	5.00	2.33	5.00	0.00
Q7. Cost efficiency.	4.44	2.23	4.20	2.44	4.75	1.67	5.00	2.00
Q8. Availability of products when you need them.	4.71	2.50	4.73	2.91	4.75	1.67	4.50	1.50
Q9. Time efficiency.	4.35	2.38	4.00	2.73	5.00	1.67	5.00	1.50
Means project efficiency category	4.44	2.41	4.25	2.67	4.72	1.89	4.83	1.57

■ Completely successful ■ Very successful □ Moderately successful □ Not very successful □ unsuccessful

Source. Own elaboration.

The results for each group of stakeholders —project team, senior management, and project recipient— show that the project recipient, with an average rating of 4.72, and the senior management, with an average rating of 4.83, had the highest averages in this group of factors related to SP, and the lowest averages of 1.89 and 1.57, respectively, for USP. On the other hand, the project team showed tighter averages, compared to the other two groups of stakeholders, with 4.25 and 2.67.

4.2. Benefits realization

Table 5 shows the average values for this category. Most of the factors that were analyzed show differences between the SP and USP; however, in questions Q18, Q21, Q23, Q24, and Q29 the USP are rated as moderately successful. In addition, the factors that scored lowest scores for both SP and USP are associated with Q16 and Q17. Finally, it is interesting that Q29, which measures the new knowledge that was obtained, had the highest average score for USP at 3.13 —moderately successful—. From the perspective of the stakeholders, the project team gave a higher rating to the USP than to the other two groups of stakeholders.

Table 5. Results for category 2: benefits realization

	Consolidated		Team		Customer		Senior	
Question	SP	USP	SP	USP	SP	USP	SP	USP
Q10. Visible impact on stakeholders.	4.76	2.56	4.82	2.91	4.50	1.67	5.00	2.00
Q11. Team satisfaction.	4.59	2.38	4.55	2.73	4.75	1.67	4.50	1.50
Q12. Client satisfaction.	4.71	2.31	4.73	2.73	4.50	1.67	5.00	1.00
Q13. End-user satisfaction.	4.65	2.31	4.64	2.73	4.50	1.67	5.00	1.00
Q14. Senior Satisfaction.	4.76	2.13	4.73	2.45	4.75	1.33	5.00	1.50
Q15. Recipient Satisfaction.	4.65	2.19	4.55	2.55	4.75	1.33	5.00	1.50
Q16. Personal financial rewards.	2.90	1.44	2.83	1.60	3.33	1.00	2.00	2.00
Q17. Personal non-financial rewards.	3.40	1.64	3.17	1.86	3.67	1.00	4.00	2.00
Q18. Generation of products as described in the initial planning documents.	4.53	2.69	4.36	3.09	5.00	1.33	4.50	2.50
Q19. Use of the final product.	4.88	2.50	4.82	2.55	5.00	2.67	5.00	2.00
Q20. Demonstration and handover.	4.41	2.56	4.18	2.82	4.75	1.67	5.00	2.50
Q21. Compliance with technical specifications	4.35	2.81	4.09	3.27	5.00	1.33	4.50	2.50
Q22. Obtaining the expected benefits.	4.59	2.19	4.45	2.55	4.75	1.33	5.00	1.50
Q23. Solving problems / Customer Needs.	4.71	2.81	4.55	3.18	5.00	2.33	5.00	1.50
Q24. Generating long-term relationship with allies.	4.73	2.86	4.56	3.50	5.00	1.33	5.00	1.00
Q25. Commercial success.	4.88	2.38	4.91	2.64	4.75	2.00	5.00	1.50
Q26. Creating market share.	4.63	2.38	4.50	2.75	4.75	2.00	5.00	1.50
Q27. Improving organizational capacity.	4.35	2.40	4.27	2.90	4.50	1.33	4.50	1.50
Q28. Impact and visible benefits.	4.88	2.19	4.82	2.55	5.00	1.33	5.00	1.50
Q29. New knowledge obtained.	4.47	3.13	4.27	3.64	4.75	2.33	5.00	1.50
Means benefits realization category.	4.49	2.39	4.39	2.75	4.65	1.62	4.70	1.68

■ Completely successful ■ Very successful ■ Moderately successful □ Not very successful □ unsuccessful

Source. Own elaboration.

4.3. Project management practices

In this category, we assessed the extent to which the implementation of 20 management practices was successful in each project (Table 6), using a Likert scale from 1 to 5, where 5=completely successful and 1=unsuccessful. The results show the greatest difference in Q69, where the SP obtained an average score of 4.53 and the USP obtained an average score of 2.43. Furthermore, the consolidated scores for the USP in questions Q51, Q54, Q55, Q57, Q60, Q61, and Q66 show that these practices were moderately successful in these projects.

From the perspective of the stakeholders, the project team members give a higher average score to 66% of the practices evaluated for the USPs, considering them moderately successful. On the other hand, senior managers considered USP very successful in Q58 and Q68, which would indicate that in this case, these aspects are not considered CSF.

Table 6. Results for category 3: project management practices

Question	Consolidated		Team		Customer		Senior	
	SP	USP	SP	USP	SP	USP	SP	USP
Q51. The implementation of a formal training program for developing the skills that employees needed for the operation of the product.	4.00	2.64	4.00	2.80	3.75	2.67	4.50	1.00
Q52. The implementation of an incentive system based on achieved objectives and results.	3.42	1.70	3.78	2.20	2.33	1.00	0.00	1.50
Q53. Knowledge management.	4.12	2.27	4.09	2.80	4.00	1.33	4.50	1.00
Q54. Quality management.	4.24	2.81	4.09	3.27	4.50	1.33	4.50	2.50
Q55. Compliance with defined procedures.	4.29	2.81	4.09	2.91	4.75	2.67	4.50	2.50
Q56. Suppliers' selection.	4.23	2.50	4.13	2.71	4.33	2.00	4.50	
Q57. Establishing milestones and main reference points for the project.	4.47	3.19	4.27	3.45	5.00	2.67	4.50	2.50
Q58. Supplier's control.	4.08	2.33	3.86	2.38	4.25	1.67	4.50	4.00
Q59. Contract management.	4.00	2.25	3.67	2.33	4.25	2.00	4.50	0.00
Q60. Analysis of requirements and recommendations that are applicable to the project.	4.41	2.88	4.18	3.09	4.75	2.33	5.00	2.50
Q61. Technical complexity—Clarity in the definition of the product and scope of the project, need for the development of a new technology—.	4.35	2.94	4.18	3.00	4.75	3.33	4.50	2.00
Q62. Reduce or minimize the impact for the organization.	4.19	2.50	4.00	2.73	4.50	2.33	5.00	1.50
Q63. Simplification in the handover of the project.	4.29	2.40	4.18	2.80	4.50	1.67	4.50	1.50
Q64. Lower number of changes in scope.	4.12	2.27	3.91	2.70	4.50	1.67	4.50	1.00
Q65. The administration of knowledge transfers processes.	3.94	2.29	4.00	2.60	4.00	1.67	3.50	1.00
Q66. Management of an implementation program in the other areas of the organization —Articulation between areas and processes—.	4.00	2.67	3.80	2.82	4.25	2.33	4.50	2.00
Q67. Financial Complexity —Value of investment, percentage value of estimated risks, sales margins—.	3.93	2.36	3.67	2.00	4.50	3.33	4.00	
Q68. Contractual complexity —Bargaining power, number of external participants, and number of internal participants—.	3.92	2.47	3.57	2.18	4.50	3.00	4.00	4.00
Q69. Organizational Considerations —strategic relevance of the project and strategic relevance for the client—.	4.53	2.47	4.55	2.50	4.50	3.00	4.50	1.50
Means project management practices category. Third group.	4.13	2.51	4.00	2.70	4.31	2.21	4.44	2.00

■ Completely successful ■ Very successful □ Moderately successful □ Not very successful □ unsuccessful

Source. Own elaboration.

4.4. Communications

In general, the items evaluated in this category (Table 7) showed that the SP had a completely successful communications system and the USP had moderately successful communications. Four questions have an unsuccessful rating for the USP, namely Q73, Q74, Q83, and Q86. From the perspective of the stakeholders, it was found that the project team considered that communications were very successful in the USP, unlike the client and the sponsor who described communications as being unsuccessful in this case.

Table 7. Results for category 4: communications

Question	Consolidated		Team		Customer		Senior	
	SP	USP	SP	USP	SP	USP	SP	USP
Q70. Representatives of the areas involved in the project attending meetings and visits – doing what is necessary to understand the requirements of the project.	4.35	2.88	4.27	2.91	4.50	3.33	4.50	2.00
Q71. The development of the relationship with stakeholders.	4.35	3.00	4.27	3.27	4.50	2.67	4.50	2.00
Q72. The quality of the relationship with stakeholders.	4.47	3.19	4.45	3.45	4.50	2.67	4.50	2.50
Q73. The effectiveness of the relationship with stakeholders —Support in achieving objectives—.	4.35	2.50	4.27	2.73	4.50	2.00	4.50	2.00
Q74. The association with external stakeholders.	4.00	2.43	3.75	2.70	4.25	2.00	4.50	1.00
Q75. The communication of the project schedule.	4.47	3.31	4.27	3.45	4.75	3.00	5.00	3.00
Q76. The communication of the stakeholders through the handover and use stages.	4.47	2.80	4.45	2.90	4.50	2.67	4.50	2.50
Q77. The communication among the project team.	4.41	3.31	4.36	3.45	4.50	3.00	4.50	3.00
Q78. Organizational communication with stakeholders.	4.29	2.75	4.27	3.09	4.25	2.67	4.50	1.00
Q79. Working with stakeholders to solve problems and deficiencies.	4.35	2.75	4.27	3.18	4.50	2.00	4.50	1.50
Q80. The information shared with the project team.	4.29	3.19	4.18	3.36	4.50	3.00	4.50	2.50
Q81. The support of project team.	4.53	3.38	4.55	3.64	4.50	2.67	4.50	3.00
Q82. The support of individual efforts.	4.41	3.00	4.36	3.27	4.50	2.33	4.50	2.50
Q83. The creation of an accessible portal for obtaining and exchanging information and best practices in projects.	2.79	2.00	2.33	2.22	3.00	1.00	4.50	2.50
Q84. The quality relationship between the client and the end user.	4.29	2.80	4.27	3.50	4.25	1.67	4.50	1.00
Q85. Carrying out follow-ups to solve issues that affect the end user.	4.29	3.13	4.18	3.20	4.25	3.33	5.00	2.50
Q86. The establishment of a two-way means of communication with clients and end users.	3.88	2.47	3.90	2.60	3.50	2.33	4.50	2.00
Means communications category.	4.24	2.88	4.14	3.11	4.31	2.49	4.56	2.15

■ Completely successful ■ Very successful ■ Moderately successful □ Not very successful □ unsuccessful

Source. Own elaboration.

4.5. Strategic environment

Table 8 presents the average results for the questions in this category. In these sections, 70 % of the questions get a score of moderately successful for USP. Questions Q89, Q90, Q96, Q99, and Q100 reflect the greatest differences between SP and USP projects. The results from the perspective of the stakeholders show that for both the project team and the project recipients, the USP have a moderately successful performance, different from that perceived by the members of the participating board. However, the latter group rates Q92, Q95, Q97, and Q107 as very successful in the USP.

Table 8. Results for category 5: strategic environment

Question	Consolidated		Team		Customer		Senior	
	SP	USP	SP	USP	SP	USP	SP	USP
Q87. The level of innovation of the products that have been developed.	3.94	2.63	3.82	3.00	4.00	2.33	4.50	1.00
Q88. The contribution to the creation of a new market.	4.33	2.62	4.22	2.90	4.50	1.67	4.50	
Q89. The development of a new product line.	4.31	2.50	4.40	2.89	4.00	1.33	4.50	
Q90. The development of a new technology or implementation thereof.	3.93	2.54	3.90	2.78	3.67	2.00	5.00	2.00
Q91. Making other projects possible in the future.	4.59	3.25	4.55	3.64	4.50	2.33	5.00	2.50
Q92. Motivating the creation of new projects.	4.59	3.00	4.55	3.00	4.50	2.67	5.00	3.50
Q93. Learning for future projects.	4.65	3.88	4.64	3.91	4.50	3.33	5.00	4.50
Q94. The support of top management.	4.65	3.00	4.55	2.90	4.75	2.67	5.00	4.00
Q95. The allocation of the appropriate resources to meet the project objectives.	4.53	3.13	4.36	2.91	4.75	3.33	5.00	4.00
Q96. The rewards received for making appropriate suggestions.	3.50	2.00	3.50	2.13	3.25	1.67	4.00	2.00
Q97. Involving employees in making strategic decisions.	3.65	2.69	3.64	2.38	3.75	3.00	3.50	3.50
Q98. The support of senior management for the development of the project.	4.59	2.86	4.55	2.90	4.50	2.67	5.00	3.00
Q99. Integrating employees from each level of the organization in the decision making process.	3.71	2.36	3.82	2.60	3.50	2.00	3.50	1.00
Q100. Superiors take their employees into account in the decision-making.	3.59	2.50	3.64	2.50	3.50	2.67	3.50	2.00
Q101. Giving employees opportunities to suggest improvements in the way things are done.	3.88	2.93	3.73	3.20	4.25	3.00	4.00	1.50
Q102. Giving employees the confidence to make decisions at a personal level and for the organization.	3.88	2.67	3.82	2.80	4.25	3.00	3.50	1.50
Q103. Contributing to the success of the business — Contribution to the strategic objectives—.	4.71	2.63	4.64	2.73	4.75	3.00	5.00	1.50
Q104. Adjusting the objectives of the project to the strategy of the organization.	4.76	2.73	4.82	2.82	4.75	2.67	4.50	2.00
Q105. Generating business and other benefits.	4.53	2.60	4.45	2.73	4.50	2.33	5.00	2.00
Q106. Contributing to the achievement of the company vision.	4.25	2.50	4.10	2.60	4.50	2.33	4.50	2.00
Q107. The delivery of a proposal - by the project team - adjusted to the specifications.	4.41	3.13	4.45	3.00	4.25	3.33	4.50	4.00
Q108. The Planning / Formulation of the project.	4.56	3.20	4.45	3.09	4.75	3.67	5.00	3.00
Means strategic environment category.	4.25	2.79	4.21	2.88	4.26	2.59	4.50	2.53

■ Completely successful ■ Very successful □ Moderately successful □ Not very successful □ unsuccessful

Source. Own elaboration.

4.6. Project team

The project team category focused on measuring staff skills and defining roles and responsibilities on a Likert scale from 1 to 5 —5 being excellent and 1 being very poor—. The overall average score in this category (Table 9) was 4.34 for the SP and 3.35 for the USP. This shows that the organization was generally well staffed with competent people. In addition, the project team all in all gave the USP a moderate rating.

Table 9. Results for category 6: project team

Question	Consolidated		Team		Customer		Senior	
	SP	USP	SP	USP	SP	USP	SP	USP
Q109. How would you rate the skills and abilities of the project leader?	4.59	3.60	4.55	3.55	4.50	4.00	5.00	3.00
Q110. How would you rate the skills and abilities of the project team?	4.59	3.38	4.45	3.73	4.75	3.00	5.00	2.00
Q111. Do you think that the project team has the capacity to evaluate and express their emotions?	4.18	3.50	4.00	3.73	4.50	3.33	4.50	2.50
Q112. Do you consider that the project team has the capacity to evaluate and recognize the emotions of other stakeholders?	4.06	3.50	4.09	3.73	3.75	3.33	4.50	2.50
Q113. Do you consider that the project team has the degree of flexibility that is necessary for the decision-making process?	4.00	2.88	3.91	3.18	4.00	2.67	5.00	1.50
Q114. Do you think that the project team has the degree of cognitive flexibility for thinking and problem solving?	4.35	3.38	4.36	3.64	4.25	3.00	4.50	2.50
Q115. Do you consider that the project team has the ability to think systematically about organizational processes?	4.47	3.25	4.45	3.45	4.50	3.00	4.50	2.50
Q116. How would you rate the capacity of the project team to solve problems and deficiencies that may be found in the project?	4.41	3.38	4.45	3.64	4.25	3.00	4.50	2.50
Q117. How would you rate the company staff in coordinating the work with other people?	4.12	3.44	4.09	3.73	4.00	3.33	4.50	2.00
Q118. How would you rate the commitment of the project team?	4.59	3.56	4.55	3.82	4.75	3.33	4.50	2.50
Q119. How would you rate the definition of roles and responsibilities within the project?	4.53	3.25	4.45	3.55	4.75	2.67	4.50	2.50
Q120. How would you rate the definition of responsibilities and levels of authority for project development activities?	4.24	3.06	4.09	3.18	4.50	3.33	4.50	2.00
Means project team category.	4.34	3.35	4.29	3.58	4.38	3.17	4.63	2.33

■ Completely successful ■ Very successful □ Moderately successful □ Not very successful □ unsuccessful

Source. Own elaboration.

The evaluation based on the perception of each group of stakeholders showed several nuances, especially for USP, where the team gave a more favorable score to the projects —3.58— than the other actors, possibly because the team was self-evaluating their own work. The client gave an average score of 3.17 for the USP, while the sponsor gave a negative score of 2.33 for the USP.

4.7. External environment

In this category, respondents evaluated each item on a Likert scale from 1 to 5 —5 being completely successful and 1 being unsuccessful—. Questions Q121 to Q124 measured the development of the relationship with external stakeholders. In the consolidated part of table 10 one can see that there were similar differences in the means in all the questions for SP and USP. However, USP projects are considered moderately successful in question Q125. This situation persists in the scores given by the project team members and the client; but not in the case of senior management.

Table 10. Results for category 7: external environment

Question	Consolidated		Team		Customer		Senior	
	SP	USP	SP	USP	SP	USP	SP	USP
Q121. Shared responsibility between the company and the project suppliers.	4.13	2.44	4.00	2.55	4.33	2.00	4.50	2.50
Q122. The development of the relationship with external stakeholders.	4.20	2.29	4.30	2.40	3.67	2.33	4.50	1.00
Q123. The quality of the relationship with external stakeholders.	4.33	2.50	4.40	2.70	4.00	2.33	4.50	1.00
Q124. The effectiveness of the relationship with external stakeholders.	4.33	2.50	4.40	2.70	4.00	2.33	4.50	1.00
Q125. The management of the legal environment for the development of the project.	4.44	2.93	4.30	3.20	4.75	2.67	4.50	1.00
Means external environment category	4.29	2.53	4.28	2.71	4.15	2.33	4.50	1.30

■ Completely successful ■ Very successful ■ Moderately successful □ Not very successful □ unsuccessful

Source. Own elaboration.

5. Discussion

This research explores the success factors for the handover and use stages in the gambling sector, through a case study in a company in the region of Antioquia (Colombia). The empirical study uses a model developed in the theoretical review, with seven categories: project efficiency, the realization of benefits, communications within the project, strategic project environment, project management practices, project team, and external project environment.

The results of the case study show several success factors because there are marked differences in the scores between successful projects (SP) and unsuccessful projects (USP). The most relevant categories are Project efficiency and Benefits realization. This reflects that the fulfillment of the iron triangle and the achievement of the objectives set for the organization and the stakeholders are irrevocable elements for the achievement of success in any project and at every one of its stages, which will contribute to global success and that is in line with what is stated in the literature. (Badewi, 2016; Mir & Pinnington, 2014; Rodríguez-Segura *et al.*, 2016; Serrador & Turner, 2014).

Additionally, Project Management Practices and External Environment stand out as two important categories of success factors in this case. In the first category, the company that was analyzed shows certain strength in the implementation of these practices, which even lead to their good execution in unsuccessful projects. However, it is necessary to continue investing in the improvement of their project-management capabilities in order to achieve

a superior performance (de Carvalho, Patah, & de Souza, 2015). In the second one, the results indicate that the management of external stakeholders is relevant, especially for the projects of the strategic business unit (SBU), where all these projects were designed to establish alliances with other organizations, whether public or private.

This finding is in line with previous studies suggesting that the project manager has no authority over the external stakeholders, and often the power relations between them are either the same or the stakeholder is in a higher position. Therefore, project managers must use their skills to establish and cultivate the best relationships and influence stakeholders to contribute to the success of the project (Mazur *et al.*, 2014). Another reason why this category is crucial in this sector is that every product must first be approved by an entity that carries out government control in the region; this increases the obligation to constantly manage the company's legal requirements and ensure compliance.

It is interesting to note that in the other categories, USP scored moderate success, as for example in the Strategic Environment category. This may be due to the existence of a centralized area in the company for project management, where decisions about future projects to be carried out are made. Consequently, new projects will be aligned with the strategic objectives of the company.

The second major component of this study was the evaluation of the perspectives of the different stakeholders about project success factors. In general, the results show that senior managers are more critical at all levels than the other two groups analyzed. Clients also have a stronger perspective on success factors in all the categories; but project team members are more considerate when evaluating the different factors, rating USP as moderately successful or very successful. This result is consistent with the literature that points to the notion that stakeholders determine the success of a project and the criteria with which they evaluate success (Atkinson, 1999).

It is necessary to implement strategies in order to assess CSF for the different stakeholders and to establish feedback cycles where the different perspectives can be shared among them; which will make it possible to define new procedures and processes for the benefit of each stakeholder and the entire company. A clear benefit of this practice can be illustrated when analyzing item Q68 that evaluates contractual complexity. For senior management, USP were successful in this practice; from the team perspective, the evaluated projects were unsuccessful; and for the consumer, the USP were moderately successful. A detailed conjoint analysis can identify improvement opportunities for the company.

6. Conclusions

This study proposes a theoretical model for the study of critical success factors in the handover and operation stages of a project; a new instrument for measuring success factors in projects in the gambling industry, and an exploratory descriptive study for the case of one of the most important companies in the gambling sector in a region of a developing country. Consequently, this work contributes to a better understanding of the success factors in these unexplored contexts.

The results show that measuring the success of projects from the perspective of the stakeholders is a complex issue. A project, considered unsuccessful in general terms, can generate learned lessons for an organization and its participants that allow the improvement of the future performance of an organization. The value that is given to new knowledge and experiences in successful and unsuccessful projects is an opportunity for creating a knowledge management system that allows the creation of a favorable culture for the development of different types of projects in the company. In this way, the company and its processes could work as a collective brain where errors and successes are recognized; leading to improved processes in future projects.

Finally, this study has some limitations. First, it analyzes just one company in the gambling sector, so it would be interesting to perform a broader analysis with other companies in the gambling sector in the country and even internationally. Furthermore, this would allow testing the statistical validity of the measurement instrument, which although having content validity, would require larger sample sizes to analyze its statistical reliability in order to do more-advanced analyzes. Ultimately, similar studies can be conducted in other sectors to deepen the understanding of factors that can affect the handover and use stages of the project.

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