HOW PROFESSIONAL SERVICES IN SOFTWARE AND SAAS COMPANIES CAN INFLUENCE PURCHASE INTENTIONALITY OF CUSTOMERS VIA HIGH QUALITY OF SERVICE: A PRAGMATIC FRAMEWORK

Research Paper

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Abstract

Understanding how Professional Services can accelerate the Revenue of the company, including the Revenue from software licenses, is one of the most impactful and relevant challenges that leaders face.

Service Quality has been proven to be a very powerful mechanism for influencing purchase and re-purchase intentionality and the most common models for Service Quality have been existing for decades.

Recent research on the impact of the complexity of the measuring mechanisms of these models highlight how this complexity can negatively affect the quality of the data gathered, compromising the effectiveness of the insight revealed by these models.

Today, Professional Services leaders need simpler models that provide accurate data so that they can make the right decisions that accelerate the Revenue of their companies.

This research reveals a new simplified and accurate model, SIMPSERVPERF, that Professional Services leaders can use to transform their organisation into a machine capable of significantly influencing the Revenue from both from Professional Services itself and software licenses.

Keywords: Service, Quality, SIMPSERVPERF, SERVPERF, SERVQUAL, Professional Services, PS, Consulting, Information Technology, IT, Software, Software as a Service, SaaS, Revenue, Retention, Performance.

1   Introduction

Service Quality has been a field that has been deeply studied offering different models and different ways of measuring it (Brady et al, 2002; Cronin Jr and Taylor, 1992; Frost and Kumar, 2000; Hu et al, 2009; Oh, 1999). Research has been also able to link purchase intentionality with service quality by customers (Cronin Jr and Taylor, 1992; Hu et al, 2009; Zeithaml et al, 1996).

Bronet (2023) linked how effective training and development practices on Professional Services ("PS") in Software as a Service ("SaaS") companies can influence the Revenue of not just Professional Services itself but also the main revenue stream of those companies, which is software licenses. It opened the door to explore other dimensions of how PS can contribute to the licenses revenue of a company.

Knowing that service quality influences purchase intentionality, it seems reasonable to think that Professional Services delivering at high quality, will not ultimately just improve the Revenue from these Professional Services organisations but also from the Revenue that comes from the licenses-software.

And Revenue is one of the three key pillars of all successful services ecosystems; being the other two Recruiting and Retention (Allen, 2004).

1.1   Research Problem

There is no existing research about SERVQUAL and SERVPERF models in Professional Services in the Software industry. SERVQUAL and SERVPERF models are measured using surveys, and existing research on effectiveness of surveys reveals that the longer the surveys are, the less effective and less reliable data they bring (Revilla and Höhne, 2020); their study revealed that the ideal survey length, measured in time, should be 10 minutes.

Another variable that affects the quality of a questionnaire is the number of questions within a survey; Herzog and Bachman (1981) discovered that the quality of a survey is inversely proportional to the number of questions within it.

This discards all SERVQUAL models as they include 44 questions, leaving SERVPERF as the next best option as per being 50 per cent shorter.

The inherent problem with the 22-question SERVPERF survey is that it is based on non-factual questions. The issue with non-factual questions is that they take longer to respond compared to factual ones (Yan and Tourangeau, 2008). Another issue that the same study unveiled is that age impacts the time required to respond to questions, the older the respondent is, the more time is taken.

It is clear that a more pragmatic approach is needed to be able to measure effectively service quality and identify the areas that require improvement with the aim to enhance this service quality and ultimately influence positively purchase and re-purchase intentionality.

Today, Professional Services organisations, whether they have their main revenue stream coming from themselves or coming from a bigger part like the ones in Software or SaaS companies in the form of software licenses, are typically focused on driving themselves towards the classic Key Performance Indicators ("KPIs") like Billable Utilisation and Margin (Bronet, 2023). The reality is that Professional Services organisations in the Software and SaaS industry should be a contributing factor to the Revenue of the companies they belong to; these Professional Services organisations are missing the opportunity to transform themselves into entities capable of significantly influencing software licenses Net $ retention rates and Net $ expansions having a much bigger impact in the companies that they live in.

1.2   Purpose

The main purpose of this research is to propose a simplified and more pragmatic model and approach to the Cronin Jr and Taylor (1992) model; that at the same time, does not compromise on its ability to reveal the relevant data on all of the five dimensions of the original model.

The intent of this new adapted and evolved model is to transform Professional Services organisations that belong to Software or SaaS companies into entities that have a much bigger impact in the Licence-Software business without affecting their ability to be at least margin positive.

Perception of service quality from the customer as a factor to influence purchase intentionality has been determined as clear (Cronin Jr and Taylor, 1992; Zeithaml et al, 1996); the question is how to identify effectively they key areas to improve so that Professional Services can transform itself into a much more impactful unit in terms of Revenue (Professional services and Software licenses) contribution.

1.3   Significance

The findings of this study benefits all PS organisations around the globe in the SaaS and Software industry around the world and the employees working for them.

Companies that adopt this model will benefit from Professional Services organisations that are capable of influencing the main revenue stream to a much bigger extent that companies that do to not do it.

Employees will be able work under fine tunned companies much more robust with better financial results that will ultimately support the safety of the employees, especially during economic downturns of global layoffs. It also, at the same time, offers these companies the ability to retain and recruit top talent around the world as per their ability to offer better conditions to employees due to better financial results.

Therefore, the model proposed in this research improves the Big Three Rs, Revenue, Retention and Recruiting which compromise the key pillars of all successful services ecosystems (Allen, 2004).

1.4 Research Questions

The purpose of this research is to create a service quality model that can be used effectively in Professional Services in Software and SaaS companies. The intention is to also propose a questionnaire-survey that minimises the number of questions to maximise value from these survey.

Hence the two research questions of this paper:

1. What is a more effective model for understanding services quality in Professional Services in SaaS and Software companies?
2. What are the right questions to ask, that simplify the traditional SERVPERF set of 22-questions?

1.5 Hypotheses

In order to determine the model and survey to solve the questions mentioned above, this study proposes these two hypothesis:

1. There is a simpler model for service quality that can be used without impacting the ability to predict purchase intentionality and to reveal what areas require improvement to maximise this purchase, or re-purchase, intentionality.
2. There is a reduced number of questions required to obtain the same information that the 22-questions of the SERVPERF survey produces.

2 Literature Review

2.1 Service Quality via SERVQUAL

The underpinning of the SERVQUAL scale lies in the gap model presented by Parasuraman et al (1988). Based on the disconfirmation paradigm, this model contends that satisfaction hinges on the scale and orientation of disconfirmation between an individual's experience and their initial expectations (Churchill Jr and Surprenant, 1982; Zeithaml et al, 1996). Designated as a gap or variance between customer expectations and perceptions, service quality is envisioned as a continuum stretching from 'optimal quality' to 'completely unacceptable quality,' with certain points indicating acceptable quality. (Zeithaml et al, 1996) argued that when perceived or experienced service falls below expected service, it denotes less than satisfactory service quality. Conversely, when perceived service falls short of expected service, the apparent implication is that service quality exceeds expectations. (Zeithaml et al, 1996) postulated that a negative discrepancy between perceptions and expectations produces a performance gap which produces dissatisfaction, while a positive discrepancy results in a positive consumer reaction which ultimately signifies a positive purchase, or re-purchase, intentionality. In order to measure Service Quality, SERVQUAL models have 44-long question surveys.

2.2 Service Quality via SERVPERF

Cronin Jr and Taylor (1992) pointed out that service quality is an antecedent of consumer satisfaction, which has a significant weight on purchase intentions.

They were amongst the researchers who levelled maximum attack on the SERVQUAL scale and questioned the conceptual basis of the SERVQUAL scale and found it confusing with service satisfaction. They, therefore, opined that expectation component of SERVQUAL be discarded and instead performance component alone be used. They proposed what is referred to as the 'SERVPERF' scale. Besides theoretical arguments, Cronin and Taylor (1992) provided empirical evidence across four

industries (namely banks, pest control, dry cleaning, and fast food) to corroborate the superiority of their 'performance-only' instrument over disconfirmation-based SERVQUAL scale.

In order to measure Service Quality, SERVPERF models have 22-long questions surveys.

Methodologically, the SERVPERF scale signifies a significant advancement over the SERVQUAL scale. Beyond its efficiency in reducing the number of measured items by half, empirical evidence supports its superiority over the SERVQUAL scale in explaining a more substantial variance in overall service quality. This achievement is particularly notable when using a single-item scale for measurement. The consistent favouring of the SERVPERF scale over time is evident in substantial support from various studies (Babakus and Boller, 1992; Bolton and Drew, 1991; Boulding et al, 1993; Hartline and Ferrell, 1996).

Cronin Jr and Taylor (1992) conceptualized the Zeithaml et al (1996) model.
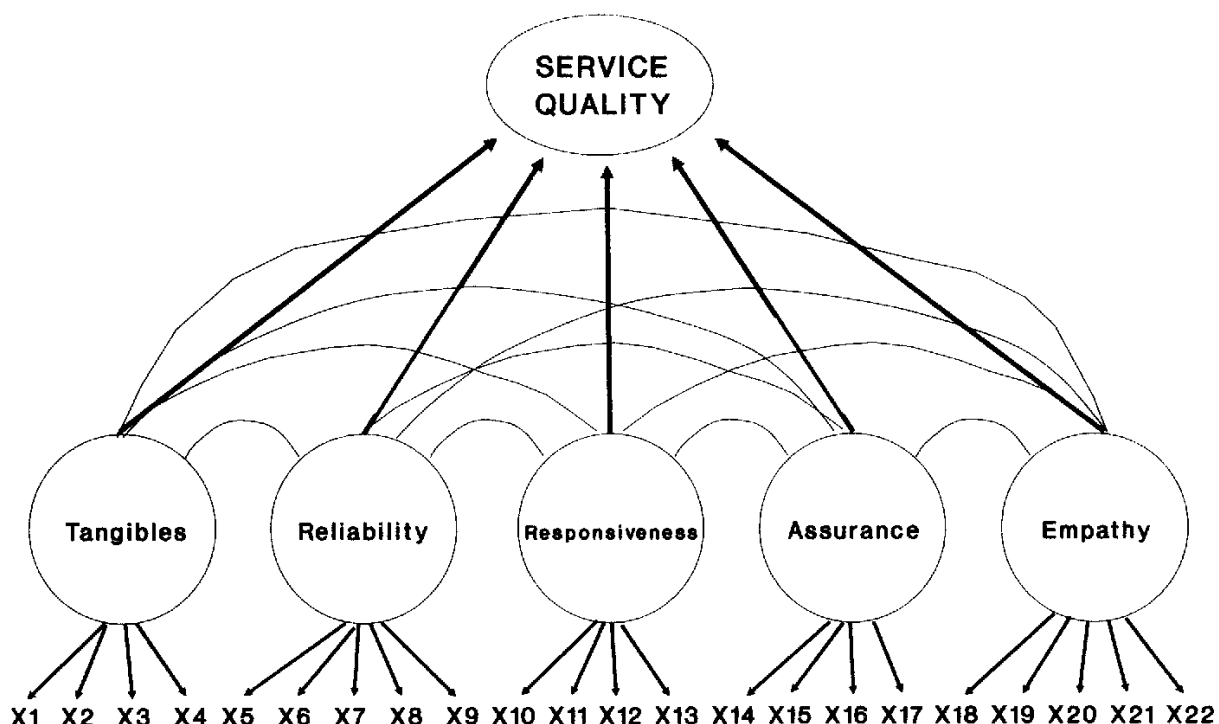

Figure 1. Cronin Jr and Taylor (1992) model of Service Quality

The Cronin Jr and Taylor (1992) model is based on the following five dimensions:

- Tangible (Present a Professional Image): The physical facilities, equipment, staff, and communication materials present a refined and well-maintained appearance. The team arrives with cameras on, dressed in a professional manner.

- Reliability (Execute with Precision): Consistently delivering promised services with reliability and precision is a key strength. The team adheres to agreed-upon service schedules, ensuring prompt and reliable delivery as promised. Services are executed accurately on the initial attempt, and when the team commits to a specific timeframe, they consistently fulfil that commitment.

- Responsiveness (Act Promptly): Demonstrating a readiness to assist and providing prompt service is a notable attribute of the team. They consistently respond promptly to my requests, never appearing too busy to address them. In the face of challenges, the team shows a genuine interest in resolving issues and offers timely assistance.

- Assurance (Demonstrate Competence): The employees' knowledge and courtesy are evident, instilling confidence in their capabilities. The team consistently demonstrates courtesy,

fostering trust in their professionalism. They conduct themselves with expertise and professionalism, promptly addressing any questions or concerns that may arise.

- Empathy (Show Genuine Concern): The organisation extends caring and personalized attention to its customers, with the team offering individualized care that reflects a sincere interest in customer well-being. They prioritize empathy and attentiveness, ensuring a focus on meeting customer needs with a genuine and considerate approach.

2.3   SERVPERF vs. SERVQUAL & Weighted vs. Unweighted

Weighted vs. unweighted is based on what areas are more important which represents a challenge, which is that what is more important for a group of individuals when assessing service quality, might not be the same that what is more important to another group of individuals. In the end, a measure of service quality based on performance without weighting (unweighted SERVPERF) is considered a more suitable approach for assessing service quality compared to SERVQUAL, weighted SERVQUAL, or weighted SERVPERF (Cronin Jr and Taylor, 1992).

Another more recent study revealed that for evaluating the overall service quality of a firm or making quality comparisons across service industries, it is advisable to use performance-only measurement scales, such as SERVPERF and weighted SERVPERF, due to their psychometric reliability. When pinpointing specific areas of service-quality deficiencies in a firm for managerial interventions, managers should prioritize the use of the SERVPERF (non-weighted) scale, given its superior diagnostic capability (Andronikidis and Bellou, 2010).

3   Methodology

3.1   Design Science Research

This study employs Design Science Research (DSR) as the research methodology, a recent approach specifically crafted for creating artifacts to address problem-solving objectives. Initially introduced in Information Systems, DSR has broadened its application to diverse domains, including business management, owing to its versatility
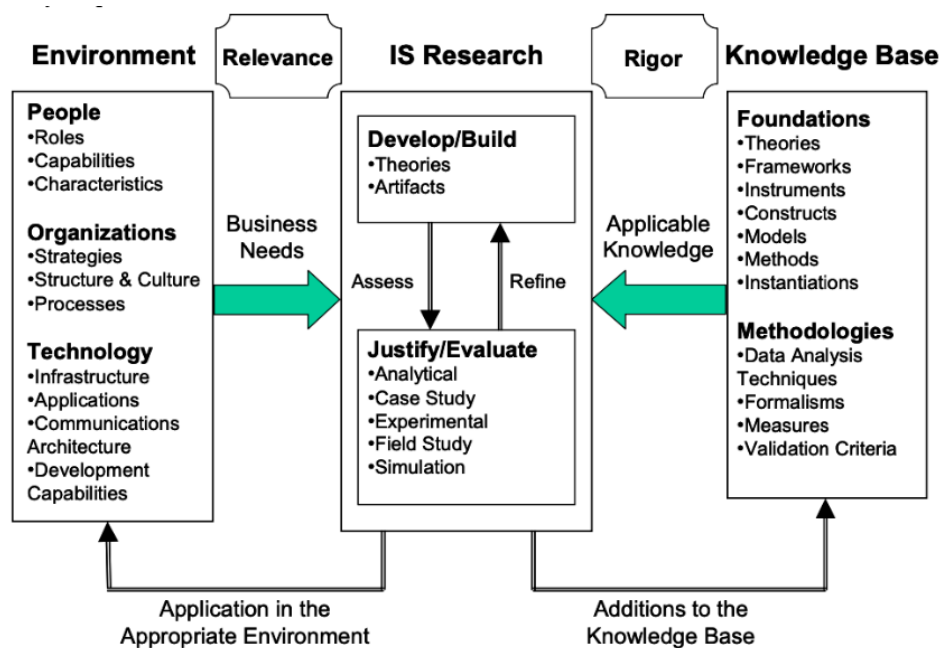

Figure 2. Information Systems Research Framework (Source: Hevner et al 2004)

DSR, as illustrated above, centres on comprehending the context (environment) and identifying business needs. Subsequently, it leverages this understanding to create artifacts or theories, such as models and frameworks, aimed at solving one or more problems. The starting point at business needs makes this framework adaptable for use in the field of business management.

According to Hevner et al (2004), the outcome of design-science research involves developing purposeful IT artifacts, or a series of artifacts, to address significant organizational problems. It is essential to grasp the definition of an IT artifact within the context of DSR, encompassing constructs (vocabulary and symbols), models (abstractions and representations), methods (algorithms and practices), and instantiations (implemented and prototype systems).

4   Results

4.1   Simple Service Performance Model (SIMPSERVPERF)

As the answer to the first research question, this research proposes a simplification of the Cronin Jr and Taylor (1992) model (unweighted SERVPERF) with a staged approach. The first stage (S1) covers all five categories with one question per category only. This first stage is used for two purposes; the first purpose is used to discover the lowest score and what categories belong to this lowest score and the second purpose is to calculate the Purchase Influence Mean Score, which can be used to understand the purchase probability. At this point the second stage (S2) is used to dig deeper into the category (or categories) that belong to the lowest score discovered with the aim to understand in deeper detail what exactly to change in order to maximise purchase intentionality. S2 can happen on a different session, or taking advantage of current technology, it can use adaptative online questionaries to automatically present the relevant follow-up X questions that belong to the A categories that have the lowest score.

This approach minimises survey questions, reducing complexity and completion time, while maximizing response quality. It optimizes accuracy in identifying areas for positive influence on customer purchase or repurchase intentions by streamlining the survey process.
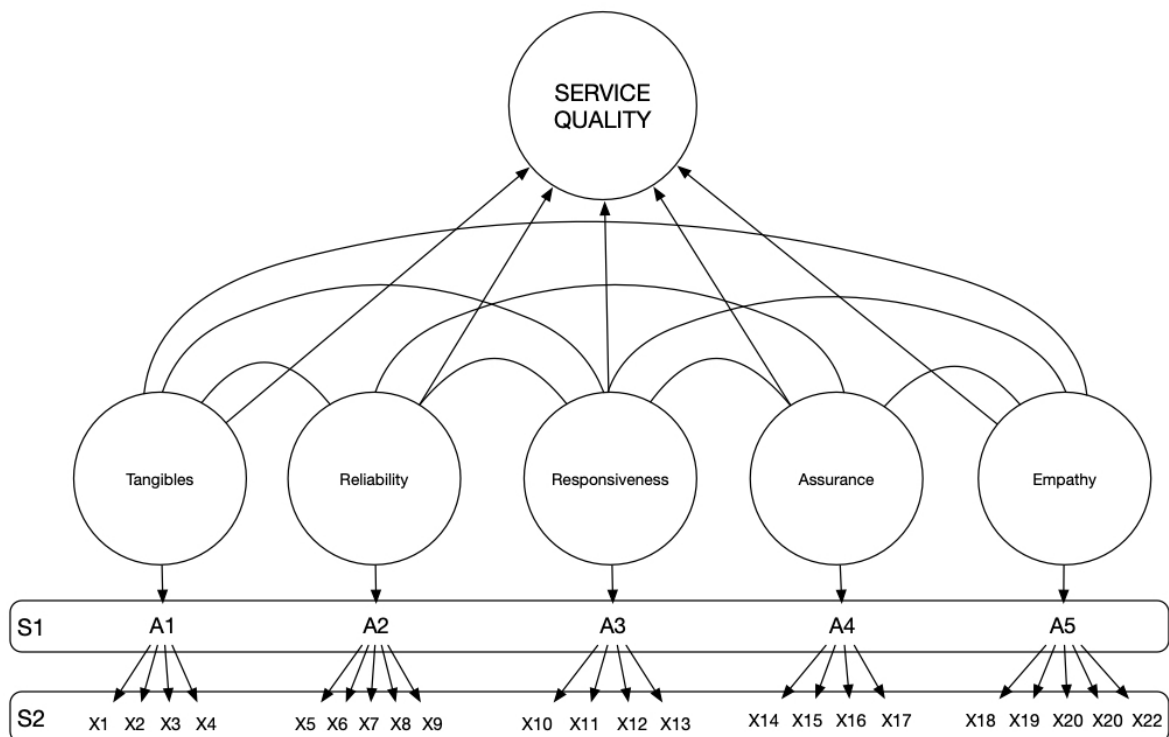

Figure 3. SIMPSERVPERF Model

Table 1, below, is the answer to the second research question. The proposal is that each of the A series questions are asked in terms of grading from 1 to N. Being 1 the lowest possible and N the highest possible.

Table 1 – Stage 1 (S1) Questions

Question #	Area	Question (Grade from 1 to N)
A_1	Tangibles	The Professional Services team show up professionally dressed in a professional set-up and communicate with me (both verbally and in written form) in a professional manner.
A_2	Reliability	The Professional Services team keep their commitments within the agreed time.
A_3	Responsiveness	Every time I have a question or concern, the Professional Services team get back to me promptly and with true interest.
A_4	Assurance	The Professional Services team is knowledgeable, and I trust them.
A_5	Empathy	The Professional Services team give me personal and individual attention.

$$Purchase\ Influence\ Mean\ Score = \frac{\sum_{i=5}^{i=1} A_i}{5}$$

5   Discussion

For decades different research has focused on understanding how service quality can influence the intentionality of customer to purchase a product or service (Andronikidis and Bellou, 2010; Boulding et al, 1993; Cronin Jr and Taylor, 1992, 1994; Zeithaml et al, 1996). However, little has been said on how Professional Services organisations in the Software or SaaS industry can maximise their contribution to the main revenue stream (which typically is in the form of software licenses) of those organisations.

Professional Services organisations are driven by very specific metrics, these are typically billable utilisation, margin, services sales and delivered revenue (Maister, 1993). This drive is very effective when those organisations produce the main revenue stream of the companies they belong to; the issue arises when those PS organisations belong to companies on where the main revenue stream is not from PS itself but from other sources; because being driven by that classic approach produces a management and leadership tunnel vision, it generates a lack of ability of see the bigger picture and creates a serious misalignment risk on where PS follow a different path that the rest of the company.

Whether the main objective of a company is increasing revenue, reducing cost or mitigating risk, all parts of a company need to be aligned with it. In Software and SaaS companies, the main Revenue goal should be maximising software licenses revenue; the goal in this case for PS organisations should be accelerating this revenue, without incurring in negative net margins.

Aligning the business unit with the bigger goal is not an option, is a need and leaders must understand how to effectively align themselves with the bigger goal(s) of a company. This research presents a how to align Professional Services organisations in the Software and SaaS industry with their company in terms of maximising revenue from software licenses without incurring in negative net margins.

PS are complex machines with simple PnL metrics. As said above, it is crucial to not mistake these metrics with the bigger goals of the organisation, having a healthy PS ecosystem doesn't disqualify it from having a much bigger impact in company Revenue from Software.

Investing in Service Quality as a way to enhance purchase or repurchase intentionality is one way to boost Revenue. So that PS leaders understand what specifically to improve in their organisations, they need accurate data. Surveys used to gather data on service quality need to be simpler and shorter. As shown above, SERVQUAL whether weighted or unweighted are based on 44-question surveys that are too complicated, too long and not as accurate (Babakus and Boller, 1992; Cronin Jr and Taylor, 1994; Seth et al, 2005) as the Cronin Jr and Taylor (1994) SERVPERF model. Either way, both SERVQUAL and SERVPERF models have too many questions, even the simpler SERVPERF model comes with 22 questions and that is too long to be accurate enough (Revilla and Höhne, 2020; Yan and Tourangeau, 2008).

This shows how important is for Professional Services organisations to have a simpler but at the same time an accurate approach so that they can understand what areas to focus on for each of their customers; the need for a model that allows these organisations to understand service quality not just as a whole, but also against each customer independently.

Staging the SERPERF Cronin Jr and Taylor (1994) model allows to reveal what area or areas to focus on to improve service quality and ultimately increases purchase intentionality while reducing the number of questions asked at the same time, making the model simpler and more accurate.

6 Summary

6.1 Recommendations and Future Work

This research used a small population of 7 customers, and although results have been very positive, a bigger and widder population would highlight its results to a much more precise extent.

This research has not given any indication about what the optimal grading range for the A-questions is. More research on finding whether for example 1 to 5 is better or 1 to 7 would increase the accuracy of the data that the model produces in terms of finding what areas to address.

Another area of improvement would be researching purchase or re-purchase predictability. An example in the field of Professional Services in this regard would be studying what would be the renewal probability (%) for a particular score (i.e. 4.3) or a score band (i.e. from 4 to 4.5).

6.2 Conclusion

Today, PS companies pay too much attention to their classic business targets in detriment of the bigger ones of their companies. Making mistakes while going through economic downturns have serious impact in these companies So that leaders can make the right decisions, they need updated tools and more accurate data. This research gives PS organisations for the today world a new tool in the for of a model that can be used to achieve competitive advantage against companies that do not adopt it.

The model presented in this paper shows a simpler and more accurate way of using service quality to accelerate the revenue of companies, it boosts both the revenue generated by these Professional Services organisations and the revenue generated by software licenses.

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