“WHAT MATTERS THE MOST: ON-SITE VS REMOTE SERVICE DELIVERY”

Research Paper

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“Abstract”

Professional Services in SaaS or Software companies around the Globe have experienced a shift, accelerated by COVID-19, towards delivering work Remotely. Some companies still work under the assumption that the rules of Quality of Service have not changed. This study challenged this assumption and made key counterintuitive discoveries that can lead Professional Services organisations to maximise their contribution to the company’s Revenue.

Some of these counterintuitive discoveries include revealing that how the personnel are physically perceived by customers plays a bigger role when working Remotely. It also reveals that when working On-site, customers assess the different factors of service quality more independently, and when working remotely, these factors have much stronger entanglements.

This research provides actionable insights and recommendations, helping Professional Services organisations make the right decisions depending on their delivery model so that they can have a bigger impact on the Revenue of the companies they are part of.

Keywords: Service, Quality, Performance, SIMPSERVPERF, SERVPERF, SERVQUAL, Professional, Services, PS, Consulting, Information Technology, IT, Software, Software as a Service, SaaS, Revenue, Purchase, Intentionality, remote, On-Site.

1 Introduction

For decades, the Quality of Service and its link with purchase intentionality has been the source of extensive research (Brady et al., 2002; Bronet, 2024; Cronin Jr & Taylor, 1992; Frost & Kumar, 2000; Hu et al., 2009; Oh, 1999).

Recent major global events, like COVID-19, have forced many companies to learn how to work remotely with customers. It’s been years after the Pandemic, and many have adopted the new norm of working with customers remotely. However, we do not understand well enough how customers perceive the work of Professional Services when it is delivered remotely compared to when it is delivered on-site. And there is very little science behind how the different factors that comprise the quality of service are interlinked when working on-site compared to when working remotely. Not knowing this affects our ability to make the right decisions to increase customers' intentions to purchase more from these companies, thus limiting the ability of these service organisations to have a bigger impact on revenue.

Understanding if there are differences in customer satisfaction between On-site and Remote delivery and how the different factors of service quality are entangled offers Professional Services organisations the possibility to modernise their approach with customers in a way that increases the value delivered to customers and the revenue that they generate for their companies, both in services and product revenue.

1.1 Research Problem

There is no existing research about how customers perceive the work from professional service firms that work remotely compared to on-site. Also, there is no research about how the different dimensions of service quality are interconnected.

Without scientific evidence, it is very challenging for companies to make informed decisions when it comes to delivering remotely or on-site; the companies that make decisions based on maximising profitability tend to end up delivering remotely, while companies that base their decisions on historical data can easily decide in favour of on-site. Either way, science does not back up any of the two choices.

In a highly competitive ecosystem, understanding what part of service quality needs to be improved first and how is key. Whether the decision is to use SERVQUAL, SERVPERF, or SIMPSERVPERF, it is disadvantageous to make a choice about what to improve first if the links between the five components that comprise these models are unknown.

2 Purpose

The primary purpose of this research is to reveal if there are differences in service quality when working on-site vs. remotely and to unveil the connections between the five components of the major models for quality of service: Tangibles, Reliability, Responsiveness, Assurance and Empathy.

The intent is to provide actionable data for Professional Services firms in the SaaS and Software industry so that they can make more impactful choices for their customers and, at the same time, maximise the revenue that they produce directly and, at a much bigger magnitude, the revenue of the product(s) of the companies they serve. This way, Professional Services in these types of organisations can become a more significant revenue-contributing factor compared to those that do not use the insights of this study.

Let's remember that customers' perception of service quality as a factor influencing purchase intentions is well-established (Cronin Jr & Taylor, 1992; Zeithaml et al., 1996) and that the challenge lies in effectively identifying the key areas for improvement and whether on-site is a better choice compared to remote work.

2.1 Significance

The findings of this study benefit all PS organisations worldwide in the SaaS and Software industry around the world and the customers working with them.

Companies that use the insight from this research will benefit from Professional Services organisations that are capable of influencing the main revenue stream to a much bigger extent than companies that do not do it and also, make their customers more successful.

This gives a competitive advantage to Professional Services firms that act on the findings of this research will be much better positioned to gain market share by increasing upsells and renewals of the main revenue stream they should be serving (typically sold in the form of software licenses).

2.2 Research questions

The purpose of this research is to provide insights from the modern world about service quality so that these insights can enable Professional Services in Software and SaaS companies to make choices that will maximise revenue and customer satisfaction.

Hence, the two research questions of this paper:

1. Is there a difference in the quality of service perceived by customers when working on-site compared to when working remotely?
2. Is there any entanglement between the five different dimensions of Service Quality?

2.3 Hypotheses

To determine the answers to the questions mentioned above, this study proposes these two hypotheses:

1. Working remotely does not necessarily produce a negative impact on customer satisfaction.
2. There are entanglements between some of the different factors of service quality.

3 Literature Review

3.1 Service quality models

3.1.1 SERVQUAL

SERVQUAL, developed in 1988, is a widely recognised model for assessing service quality in various industries. The model is based on the idea that service quality can be measured by comparing customer expectations with their perceptions of the actual service received. SERVQUAL identifies five key dimensions of service quality: tangibles, reliability, responsiveness, assurance, and empathy. These dimensions collectively capture the essential aspects of customer satisfaction and have been used extensively to evaluate service performance in sectors such as healthcare, education, hospitality, and retail (Parasuraman et al., 1988).

The SERVQUAL model operates on the premise that a gap between expectations and perceptions (known as the service quality gap) signifies a deficiency in service quality. By quantifying these gaps, organizations can identify areas needing improvement and enhance overall customer satisfaction. The model's versatility and simplicity have made it a popular tool for service quality assessment and management across diverse fields (Zeithaml et al., 1996).

3.1.2 SERVPERF

SERVPERF, developed in 1992, is an alternative model to SERVQUAL that focuses solely on measuring service quality based on performance without considering customer expectations. The SERVPERF model argues that perceptions of actual service performance are a more accurate and direct measure of service quality than the gap between expectations and perceptions, as proposed by SERVQUAL. This performance-only approach has been praised for its simplicity and efficiency, reducing the complexity involved in capturing customer expectations and focusing instead on what the service delivers (Cronin Jr & Taylor, 1992). However, some critics argue that ignoring expectations may overlook important aspects of customer satisfaction, especially in industries where expectations play a crucial role in shaping perceptions of quality.

Methodologically, the SERVPERF scale represents a considerable improvement over the SERVQUAL scale. In addition to its efficiency by cutting the number of measured items in half, empirical studies have shown that it better explains a larger variance in overall service quality, especially when a single-item scale is used for measurement. Over time, the SERVPERF scale has consistently gained strong support from numerous studies, highlighting its superiority (Babakus & Boller, 1992; Bolton & Drew, 1991; Boulding et al., 1993; Hartline & Ferrell, 1996).

3.1.3 SIMPSERVPERF

SIMPSERVPERF is a simplified version of the SERVPERF model, which was developed to further streamline the assessment of service quality by focusing on increasing the quality of the data used to measure service quality while, at the same time, increasing the number of responses. SIMPSERVPERF reduces the complexity of the measuring mechanisms from both SERVPERF and SERVQUAL, making it easier and quicker to apply while still capturing the essential elements of service quality. This model is particularly useful in situations where time and resources are limited and a more straightforward measurement tool is required. It also increases the reliability of the data compiled due to the small

amount of time required to complete it. Despite its simplicity, SIMPSERVPERF has been found to effectively reflect overall service quality, making it practical for many organisations (Bronet, 2024).

All of the three models exposed in this literature review (SERVQUAL, SERVPERF and SIMPSERVPERF) have in common the five dimensions of **Error! Reference source not found.** and use a similar approach for measuring Service Quality:

- **Tangible (Maintain a Professional Appearance):** The physical environment, equipment, staff, and communication materials all exhibit a polished and well-maintained look. The team shows up with their cameras on, dressed professionally.
- **Reliability (Deliver On Time with Accuracy):** A key strength lies in consistently providing services with precision and dependability as promised. The team strictly follows the agreed-upon service timelines, ensuring timely and reliable delivery. Services are carried out correctly the first time, and the team consistently meets the specific timeframes they commit to.
- **Responsiveness (Respond Quickly):** The team is noted for their readiness to help and prompt service. They consistently respond quickly to requests, never giving the impression of being too busy to assist. When challenges arise, the team shows genuine interest in resolving issues and provides timely help.
- **Assurance (Exhibit Competence):** The employees' expertise and courtesy are apparent, which builds confidence in their abilities. The team consistently displays courtesy, fostering trust in their professionalism. They handle themselves with skill and professionalism, promptly addressing any questions or concerns.
- **Empathy (Display Genuine Care):** The organisation offers caring and personalised attention to its customers, with the team providing individualised care that shows a sincere concern for the customer's well-being. They prioritise empathy and attentiveness, ensuring that customer needs are met with a genuine and considerate approach.

3.1.4 Weighted vs. unweighted dimensions

A recent study found that when assessing a company's overall service quality or comparing quality across different service industries, it is recommended to use performance-only measurement scales like SERVPERF and weighted SERVPERF due to their strong psychometric reliability. For identifying specific areas of service quality shortcomings within a company that require managerial action, managers should prioritise using the non-weighted SERVPERF scale, as it offers better diagnostic accuracy (Andronikidis & Bellou, 2010).

The fundamental aspect is selecting a non-weighted approach. The study Andronikidis and Bellou (2010) was conducted before the appearance of SIMPSERVPERF but still has the same relevance, which means that a non-equipped approach still seems appropriate.

3.2 Effective surveys

3.2.1 Number of questions and time to answer

Surveys are the key instrument for measuring service quality in the SERVQUAL, SERVPERF and SIMPSERVPERF models. Survey length and the time required to complete it are critical factors influencing the effectiveness and accuracy of the data collected. Existing research has demonstrated that longer surveys tend to result in respondent fatigue, which negatively impacts the quality of the data (Galesic & Bosnjak, 2009). As surveys extend in length, respondents are more likely to rush through the questions, providing less thoughtful and detailed responses. This phenomenon, often referred to as survey fatigue, compromises the reliability of the data, as participants may skip questions or provide superficial answers to expedite completion (Galesic & Bosnjak, 2009; Malhotra, 2008).

The number of questions included in a survey also directly affects response rates. Studies have shown that surveys with fewer questions generally achieve higher completion rates, as respondents are less

likely to abandon the survey before finishing it (Rolstad et al., 2011). In contrast, surveys with a higher number of questions often experience increased drop-off rates, where respondents start but do not complete the survey. This results in incomplete data sets, further undermining the survey's effectiveness (Sahlqvist et al., 2011). The relationship between the number of questions and response quality suggests that reducing survey length can be used to enhancing both response rates and data accuracy.

The time required to complete a survey is another significant factor affecting respondent satisfaction and the quality of the responses. Surveys that take an excessive amount of time to complete may cause respondents to lose focus, leading to less accurate and reliable responses (Galesic & Bosnjak, 2009). Research suggests that the optimal duration for a survey is typically between five to ten minutes, depending on the complexity of the questions and the level of respondent engagement (Reips, 2002). Surveys falling within this time frame are more likely to maintain respondent attention and produce higher-quality data.

While shorter surveys generally lead to better data quality and higher response rates, there is a trade-off between the quantity of information collected and the risk of respondent fatigue. Researchers must carefully balance the need for comprehensive data with the potential for reduced respondent engagement as the survey length increases. To mitigate these issues, pretesting surveys is recommended to estimate completion time and identify questions that may cause confusion or frustration (Presser et al., 2004). Additionally, employing adaptive questioning techniques, where respondents are only asked the most relevant questions based on their previous answers, can help reduce the time burden on respondents while maintaining data accuracy (Tourangeau, 2000); this is precisely the proposal of the model SIMPSERVPERF (Bronet, 2024) and the reason why it seems well suited for the modern world.

3.2.2 Optimal Likert scale

The 5-point Likert scale is widely acknowledged as an optimal tool in survey research due to its balance between simplicity and sensitivity, making it effective for capturing a broad range of opinions. Revilla et al. (2014) emphasise that the 5-point scale provides sufficient response options to differentiate opinions while avoiding overwhelming respondents, thereby reducing cognitive load and enhancing response reliability. Additionally, research by Dawes (2008) supports the notion that the 5-point scale minimises respondent burden, leading to more consistent and reliable data collection compared to scales with more options, such as the 7-point or 10-point scales, which can induce confusion or frustration. Furthermore, the 5-point scale demonstrates robust performance across different cultural contexts, which is crucial for ensuring the validity of survey data in diverse populations. Lastly, from an analytical perspective, the 5-point scale provides sufficient granularity for meaningful data analysis while remaining straightforward to interpret, allowing for the application of various statistical techniques, including parametric tests that assume interval data (Allen & Seaman, 2007).

4 Methodology

4.1 Survey design and sampling strategy

The primary objective of this research is to collect and analyse data through surveys to answer the questions of this research. To ensure the accuracy and reliability of the results, the survey is designed with a 5% margin of error ("MoE") at a 95% confidence level, which is consistent with standard practices for survey-based research involving large populations. Given that the population under study is considered infinite or sufficiently large, the sample size calculation was based on this assumption to maintain the desired statistical precision.

4.2 Sample size determination

To achieve the desired 5% margin of error with a 95% confidence level, the sample size was determined using the following formula, which is appropriate for an infinite population:

$$\boldsymbol{n = \frac{Z^2 \times p \times (1-p)}{E^2}}$$

Where:

- n is the required sample size.
- Z is the Z-score corresponding to the desired confidence level (1.96 for 95% confidence).
- p is the estimated proportion of the population (assumed to be 0.5 for maximum variability, which gives the largest sample size).
- E is the margin of error (0.05 for 5%).

Substituting the values:

$$n = \frac{1.96^2 \times 0.5 \times (1-0.5)}{0.05^2} \approx 384$$

Thus, a minimum of 384 respondents are required to achieve the desired statistical confidence and precision.

4.3 Survey instrument

The survey instrument consists of six questions in total. The first question is used to discriminate between On-site and Remote delivery (independent variable), and five consecutive further questions (dependent variables) designed to collect quantitative data related to the five dimensions of the SERVQUAL, SERVPERF and SIMPSERVPERF models; these five questions use a 5-point Likert scale. This structure is intended to guide respondents through the survey logically and minimise the cognitive load, thereby reducing the likelihood of respondent fatigue and increasing accuracy and reach.

An additional question at the beginning of the survey screens respondents and discards those who do not qualify.

4.4 Data collection procedure

The survey has been administered online using Google Forms for collection and LinkedIn, SurveyCircle, and SurveySwap for promotion, which allows for efficient distribution and collection of responses. All

responses were fully anonymous; no emails, names of participants or names from vendors were collected. The target population includes Full-Time employees of companies that received services from SaaS/Software vendors.

The distribution of responses has been approximately as follows: 70% of the responses came from SurveyCircle, 15% from LinkedIn and 15% from SurveySwap.

The countries in scope for SurveyCircle were Argentina, Australia, Bolivia, Canada, Chile, China, Colombia, Costa Rica, Cuba, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Finland, Greece, Guatemala, Honduras, Hong Kong, Hungary, India, Indonesia, Ireland, Israel, Italy, Malaysia, Mexico, New Zealand, Nicaragua, Nigeria, Norway, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Puerto Rico, Romania, Singapore, South Africa, Spain, Sweden, Taiwan, Turkey, United Arab Emirates, United Kingdom, United States, Uruguay, Venezuela and Vietnam. For LinkedIn and SurveySwap, there have been no limitations on countries.

4.5 Data analysis

Upon completing the data collection phase, the responses will be downloaded and cleaned to remove incomplete or inconsistent data. After this step, the following analyses will be performed:

Descriptive Analysis: Summarise the data with means, medians, and standard deviations and/or variance.

Comparison Analyses. Perform statistical tests to determine if there are significant differences between On-site and Remote responses for each survey question:

- **ANOVA Analysis**. Use ANOVA to determine if there are statistically significant differences in the mean ratings across different groups (On-site vs Remote).
- **Chi-Square Test.** Perform a chi-square test to analyse the relationship between two categorical variables, such as the relationship between service mode (On-site vs. Remote) and overall satisfaction (high ≥ 4 and low < 4).

Regression Analysis. Perform a simple regression analysis and logistic regression analysis to identify which factors (e.g., Tangibles, Reliability) most strongly influence overall satisfaction or another key metric. For the Logistic regression analysis, high is ≥ 4 and low < 4.

Correlation Analysis with Heatmap Visualisations: Correlation analysis using Pearson, Spearman, or Kendal to unveil the relationships between the different factors for each of the delivery options (On-site vs. Remote). The Correlation coefficient is analysed to check the data's linearity and determine which of the three approaches (Pearson, Spearman or Kendal) best suits the data.

4.6 Limitations

The main limitation of this study comes from the number of questions used in the surveys. While the objective is to maximise the reach and accuracy of data with this approach, it also has a side effect. A small number of questions can increase the risk of bias. For instance, leading, double-barrelled, or ambiguous questions can skew responses, leading to biased results.

Another risk associated with a small number of questions is overinterpretation. With only six questions, there is a risk of overinterpreting the results, attributing more significance to the findings than is warranted. For this reason, the findings focused exclusively on the variables studied and nothing else.

This methodology section outlines the rigorous approach taken to ensure that the survey results are both reliable and valid, providing a sound basis for drawing conclusions related to this research topic.

5 Results

5.1 Respondents and final MoE

Due to time and budget limitations, the actual number of respondents was 199. At a 95% confidence level, the MoE is 6.95%, which is acceptable for scientific research (Cochran, 1977; Fowler Jr, 2013; Mackman Research, 2022; Taherdoost, 2017).

5.2 Descriptive analysis

26.6% of the respondents reported receiving services from Vendors On-site, while 73.4% of the services were delivered remotely. Below is a visual comparison of the ratings for the on-site and remote groups, presented through side-by-side boxplots for each of the service quality dimensions. This visualisation helps highlight the distribution and variability in responses between the two groups.

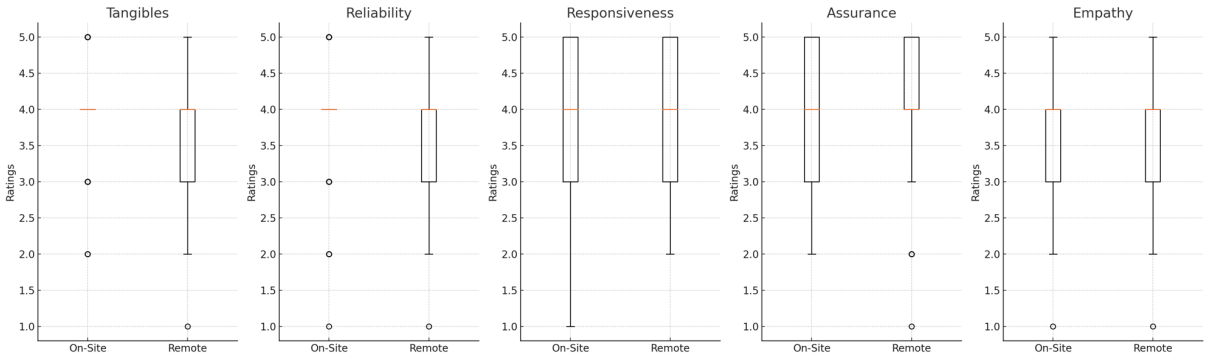

Figure 1. Boxplot Descriptive Comparison of Remote vs On-site Delivery

5.3 Comparative analysis

The graph below shows the ANOVA and Chi-Square test analyses.

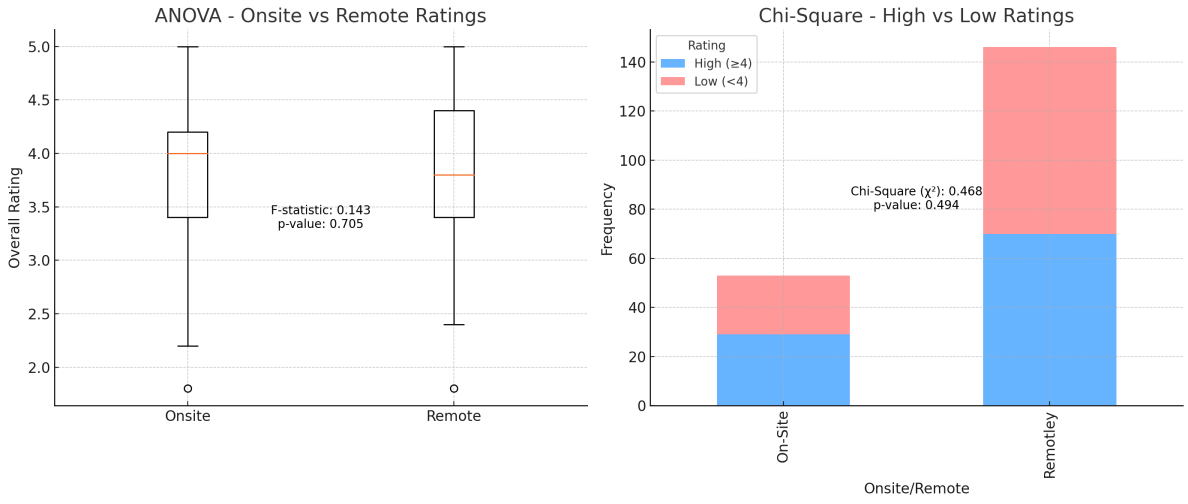

Figure 2. ANOVA and Chi-Square Analyses

The ANOVA analysis between on-site and remote revealed that F-statistic is 0.143, and that p-value is 0.705. Chi-Square test revealed that the Chi-Square statistic (χ^2) was 0.468 and that the p-value was 0.494.

5.4 Regression analysis

Table 1, below, was created to represent the results of the Simple and Logistic regression analyses.

Type	Coefficient	Intercept (Remote)	Intercept (On-site)	R-Squared (Simple) Accuracy (Logistic)
Simple	-0.0427501	3.877	3.834	0.000727
Logistic	0.2460080158	-0.0754866	0.170521	0.5276382

Table 1. Simple Linear and Logistic Regression analyses

5.5 Correlation analysis

Correlation analysis was used to understand the relationship between the different domains of service quality when the work is done remotely compared to when it is done on-site. The correlation analysis cannot use the most common method, Pearson, as Pearson assumes that the correlation coefficient is linear, which is not the case. For the other two main options, Spearman and Kendall's Tau both produced similar results, but it seemed more logical to use Kendall as having a significant number of ties.

In order to represent Kendall's Tau correlation analysis, a heatmap for each of the two delivery models (On-site and Remote) was created; this heatmap can be seen in Figure 3.

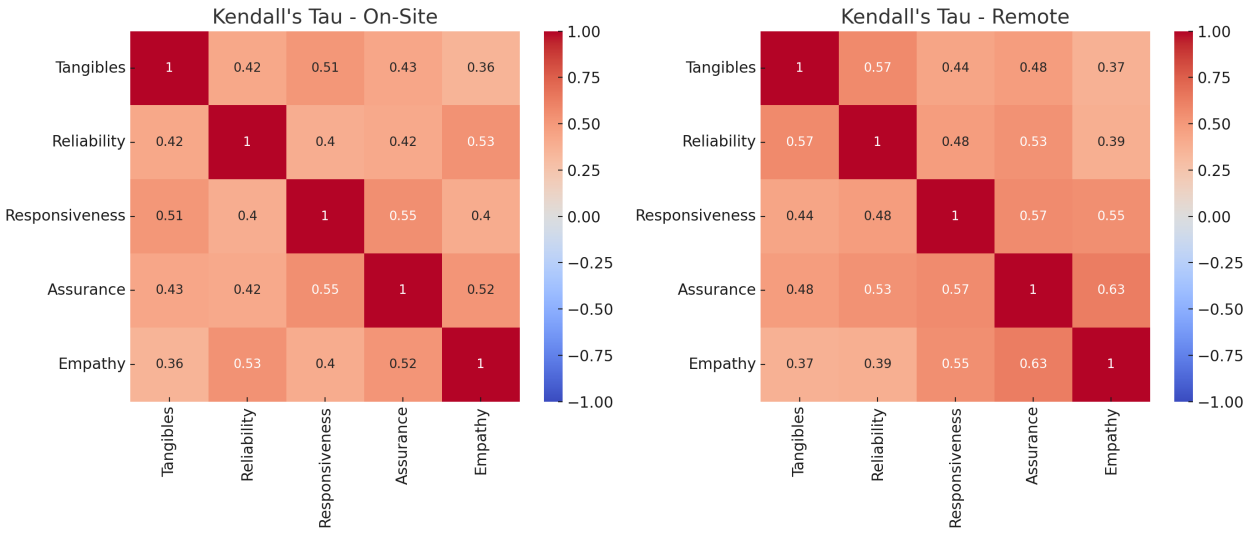

Figure 3. Heatmap representing the correlation of factors using Kendall's Tau

6 Discussion

As we saw in the previous section, 26.6% of the respondents reported receiving services from vendors On-site, while 73.4% of the services were delivered Remotely. This is a major shift compared to how services were delivered historically and proves the need to understand the differences that lie in how the quality of service is perceived by customers when the service is delivered remotely and when it is done on-site. In Figure 1, the remote group generally provides slightly more positive ratings, particularly for responsiveness and empathy. The on-site group has slightly lower ratings in some categories but shows

slightly more consistency, particularly in tangibles and reliability, although remote is more consistent for assurance. In any case, given that this study has a 6.95% error and that those differences are very small, we can say that both groups (on-site and remote) offer similar quality of service. This demystifies that working remotely for customers offers a lower quality of service.

The ANOVA analysis revealed that since the p-value is greater than 0.05, there is no significant difference in overall ratings between on-site and remote respondents.

For the Chi-Square test, as the p-value was much greater than 0.05, we can say that there is also no statistically significant association between the type of work setting (on-site or remote) and the distribution of high or low ratings. In other words, the ratings are similarly distributed between the on-site and remote groups.

The simple linear analysis indicates that delivering on-site or remotely has very little impact on service ratings. However, it does suggest that working on-site slightly lowers the ranking due to its coefficient of -0.043, although the difference is minimal. The R-Square value (0.0007) also shows almost no variation in ratings.

The coefficient (0.246) of the logistic analysis suggests a modestly higher likelihood of receiving a high rating (≥ 4) when the work is developed remotely. However, with an accuracy of 52.8%, the model cannot predict this effectively, meaning that on-site vs. remote delivery has minimal impact on ratings.

The correlation analysis revealed stronger correlations when delivering work Remotely; this implies that when the work is delivered On-site, customers are more prone to assess each factor independently; however, when delivering Remotely, the different factors have a higher entanglement.

Type	Correlated Factors	Correlation
On-site	Tangibles - Responsiveness	Moderate
On-site	Reliability - Empathy	Moderate
Remote	Assurance - Empathy	Strong
Remote	Tangibles - Reliability	Moderate to Strong
Remote	Responsiveness - Assurance	Moderate to Strong

Table 2. Most entangled factors for each Delivery model

Independent of the delivery option, quick and accurate responses (Responsiveness) influence how customers perceive the technical ability of the services team; it won't matter much that the technical skills are excellent if the responses are slow and the deliverables take a long time to be completed. This relationship is even more acute in the Remote delivery setting.

Empathy is much more important in Remote settings (strong correlation with Assurance), posing a significant challenge as the traditional approach to empathy is based on face-to-face interactions. This means that it might be harder to convey when working Remotely, but when done correctly, it does increase trust and confidence.

The tangibles matter more when working remotely; this finding goes against all intuition, where the expectation is that face-to-face interactions boost the perception of service quality, affecting all other dimensions. However, the results show that when working Remotely, high-quality tangible elements such as how professionals show in Webcam, how they look, how the space around them is laid out, the quality of the sound and video, the tidiness of the space that the customer can see or hear, the quality of the documentation, communication items (messages and emails among others) and how other deliverables are structured, presented, how correct is the grammar and spelling correctly, how good the figures and tables of document look to the eye, etc… affect how customers perceive the accuracy and trustworthiness of the services team and their deliverables.

This also means that services that are delivered On-site can engage in a staged approach to improve service quality and thus increase purchase intentionality; they can focus on improving one aspect at a

time. This strategy seems to be less effective when delivering Remotely as in order to improve the quality of Remote service, there are certain dimensions that have to be developed in parallel and never in silos. For example, working remotely on developing only the technical ability of the personnel will have a much lesser effect than if the delivery is done on-site; in this case, developing the tech ability of the personnel when working remotely requires developing at the same time the ability to be more empathetic and also making sure that response times are reduced.

7 Summary

7.1 Recommendations and future work

This research focused on services in SaaS and Software companies. There is a strong potential to use the framework of this research in other emerging services that are starting to be delivered remotely. Medicine, education and legal are just a few key and strong examples of services that have been traditionally delivered on-site while now they are moving to a remote space. Using the approach of this research to understand what matters the most to customers when delivering remotely (and on-site) will be a key factor for every single successful services organisation that plans to offer their services remotely.

7.2 Conclusion

This research aimed to reveal the factors that matter the most for Professional Services organisations in SaaS or Software companies and to determine if there are any differences in the quality of service when delivering On-site or Remotely.

The data showed that there has been a major shift in the delivery form, with three-quarters of customers receiving services remotely. The data showed that in terms of service quality, there are no big differences between delivering Remotely vs. On-site; if anything, Remote delivery scores are slightly higher. This challenges the assumption of many that Remote work is less effective when, in fact, it is more effective as it offers the same level of service quality at a lower cost (as remote delivery centres from cheaper countries become an option for any customer and travel and expenses are not factored in anymore) accelerating the Return on Investment ("ROI").

The study also revealed that when delivering On-site, customers assess the different factors of service quality more independently, while when delivering Remotely, the perceptions of the different factors of service quality are more strongly entangled. Assurance and empathy, as well as responsiveness and assurance, are the factors more interlinked in the remote setup.

Against common knowledge, Tangibles, which were initially expected to play a bigger role when delivering On-site, are not as influential as when delivering Remotely. Elements such as appearance through webcams, how tidy and organised the space around the personnel delivering the work is, quality of the documentation, etc… influence other key areas of service quality, such as reliability.

References

Allen, I.E. & Seaman, C.A. (2007) 'Likert scales and data analyses', *Quality progress*, 40(7), pp. 64–65.

Andronikidis, A. & Bellou, V. (2010) 'Verifying alternative measures of the service-quality construct: consistencies and contradictions', *Journal of Marketing Management*, 26(5–6), pp. 570–587.

Babakus, E. & Boller, G.W. (1992) 'An empirical assessment of the SERVQUAL scale', *Journal of Business research*, 24(3), pp. 253–268.

Bolton, R.N. & Drew, J.H. (1991) 'A longitudinal analysis of the impact of service changes on customer attitudes', *Journal of marketing*, 55(1), pp. 1–9.

Boulding, W., Kalra, A., Staelin, R. & Zeithaml, V.A. (1993) 'A dynamic process model of service quality: from expectations to behavioral intentions', *Journal of marketing research*, 30(1), pp. 7–27.

Brady, M.K., Cronin Jr, J.J. & Brand, R.R. (2002) 'Performance-only measurement of service quality: a replication and extension', *Journal of business research*, 55(1), pp. 17–31.

Bronet, J. (2024) 'How professional services in software and SaaS companies can influence purchase intentionality of customers via high quality of service: a pragmatic framework', *Global journal of Business and Integral Security*, 1(2), .

Cochran, W.G. (1977) 'Sampling techniques', *John Wiley& Sons*,

Cronin Jr, J.J. & Taylor, S.A. (1992) 'Measuring service quality: a reexamination and extension', *Journal of marketing*, 56(3), pp. 55–68.

Dawes, J. (2008) 'Do data characteristics change according to the number of scale points used? An experiment using 5-point, 7-point and 10-point scales', *International journal of market research*, 50(1), pp. 61–104.

Fowler Jr, F.J. (2013) *Survey research methods*. Sage publications.

Frost, F.A. & Kumar, M. (2000) 'INTSERVQUAL–an internal adaptation of the GAP model in a large service organisation', *Journal of services marketing*, 14(5), pp. 358–377.

Galesic, M. & Bosnjak, M. (2009) 'Effects of questionnaire length on participation and indicators of response quality in a web survey', *Public opinion quarterly*, 73(2), pp. 349–360.

Hartline, M.D. & Ferrell, O.C. (1996) 'The management of customer-contact service employees: An empirical investigation', *Journal of marketing*, 60(4), pp. 52–70.

Hu, H.-H., Kandampully, J. & Juwaheer, T.D. (2009) 'Relationships and impacts of service quality, perceived value, customer satisfaction, and image: an empirical study', *The service industries journal*, 29(2), pp. 111–125.

Mackman Research (2022) *A Guide To Margin Of Error*. [Online] [online]. Available from: https://www.mackmanresearch.co.uk/a-guide-to-margin-of-error/ (Accessed 6 September 2024).

Malhotra, N. (2008) 'Completion time and response order effects in web surveys', *Public opinion quarterly*, 72(5), pp. 914–934.

Oh, H. (1999) 'Service quality, customer satisfaction, and customer value: A holistic perspective', *International journal of hospitality management*, 18(1), pp. 67–82.

Parasuraman, A., Zeithaml, V.A. & Berry, L. (1988) 'SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality', *1988*, 64(1), pp. 12–40.

Presser, S., Couper, M.P., Lessler, J.T., Martin, E., Martin, J., Rothgeb, J.M. & Singer, E. (2004) 'Methods for testing and evaluating survey questions', *Methods for testing and evaluating survey questionnaires*, pp. 1–22.

Reips, U.-D. (2002) 'Standards for Internet-based experimenting.', *Experimental psychology*, 49(4), p. 243.

Revilla, M.A., Saris, W.E. & Krosnick, J.A. (2014) 'Choosing the number of categories in agree–disagree scales', *Sociological methods & research*, 43(1), pp. 73–97.

Rolstad, S., Adler, J. & Rydén, A. (2011) 'Response burden and questionnaire length: is shorter better? A review and meta-analysis', *Value in Health*, 14(8), pp. 1101–1108.

Sahlqvist, S., Song, Y., Bull, F., Adams, E., Preston, J., Ogilvie, D., & iConnect Consortium (2011) 'Effect of questionnaire length, personalisation and reminder type on response rate to a complex postal survey: randomised controlled trial', *BMC medical research methodology*, 11pp. 1–8.

Taherdoost, H. (2017) 'Determining sample size; how to calculate survey sample size', *International Journal of Economics and Management Systems*, 2.

Tourangeau, R. (2000) *The psychology of survey response*. Cambridge University Press.

Zeithaml, V.A., Berry, L.L. & Parasuraman, A. (1996) 'The behavioral consequences of service quality', *Journal of marketing*, 60(2), pp. 31–46.