

Service Quality Expectations and Perceptions of a Thai Logistics Service Provider and its Customers

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Abstract— This paper reports on an initial exploratory phase of a research project investigating logistics service quality at one Thai logistics service provider by understanding expectations and perceptions of various actors to ensure customer service and satisfaction throughout the supply chain in order to suggest service improvements. Extant research has focused primarily on western developed economies and at sector level, however little research has been done in emerging economies or with one firm as a single case. The empirical research comprised a survey of 28 staff at the Thai logistics service provider and 51 of its customers about the importance, and their and perceptions, of the service provider's logistics service quality. Compared to the Thai logistics service provider, customers believed all logistics service quality variables were less important to them and considered service provision performance was better. Nevertheless, there were some issues with individual variables. This granular approach suggested internal operational changes for to the Thai logistics service provider address customers' current perceptions to re-frame their expectations.

Keywords— Logistics service quality, Logistics Service provider, Customer service, Customer satisfaction, Thailand

I. INTRODUCTION AND THEORETICAL BACKGROUND

The concept of customer service and how it influences customer satisfaction began in the marketing domain and has been well-researched for over 60 years. Further, it has also been well-researched in the logistics and supply chain domain for over 50 years. The notion that these two domains operate independently from one another has been dispelled by many authors and has led to a call for integration of marketing and logistics since the objective for both is a satisfied customer [1]. Further, logistics activities such as transportation and storage are considered services, like banks or fast-food restaurants, and thus theories and methodologies established for marketing services are equally applicable to logistics and supply chain management (SCM) situations [2].

Customer satisfaction, as the output of good customer service, has led to several theories of service quality emanating from Oliver's 'expectancy-disconfirmation' paradigm [3]. The paradigm argues that customers will

possess certain expectations before they undertake a 'purchase' or 'service' experience. If their post experience perceptions equal their expectations, the experience is confirmed. On the other hand, if their perceptions are either lower or higher than expectations, the experience is 'disconfirmed'. Customers will be dissatisfied with the former experience however they might be delighted with the latter experience.

Thus, the business imperative for firms is to provide a sufficient customer service experience to confirm expectations, no more no less. The firm's understanding of customer expectations and their post experience perceptions, and the firm's capabilities and processes, becomes important to ensure the 'right level' of customer service to ensure customer satisfaction. The challenge is in determining factors affecting both elements of the paradigm [2].

That paradigm was operationalized as a 'service quality model' in Parasuraman, Zeithaml and Berry's seminal article [4], shown in Fig.1, and is commonly referred to as the 'Gaps' model, i.e., the 'gap' between expectations and perceptions indicating confirmation or not, are manifested in four operational 'gaps' that are invisible to customer, i.e., 'backroom' activities.

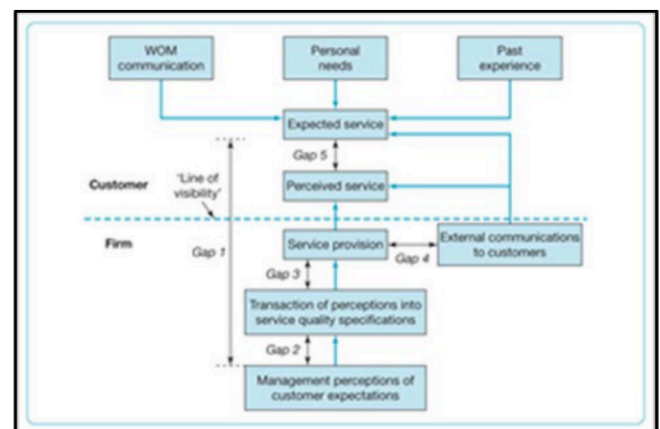


Fig. 1. 'Gaps' model of customer service quality (Source: [2] p.30)

These include the firm's perceptions of customers' expectations, translating those perceptions into service quality specifications, providing the actual service, and

providing communication and information to customers along the way. The 'Gaps' model has been widely used, along with Parasuraman, Zeithaml and Berry's subsequent instrument SERVQUAL [5], in both the marketing and logistics domains. The term logistics service quality (LSQ) has been adopted and applied in the logistics domain [1].

LSQ research has been undertaken at the functional levels of transportation, warehousing, and third-party logistics service provision and usually on a sector-wide basis [6]. It has also been used along the entire supply chain from manufacturing logistics through to retail [1, 2], and has been considered important for third-party, logistics service provider (LSP) assessment, management, and integration of its LSQ for supply chain participants at the business-to-business (B2B) level [7].

Many LSPs are also more involved nowadays in providing outsourced service provision at a retail level through store delivery, but also increasingly for fulfilment of end consumer online purchases [8]. The introduction and growth of online sales over the last 20 years has increased the complexity for order fulfilment and thus an LSP's LSQ offering [9, 10].

Research on LSQ has also been conducted globally including Southeast Asia, for example Mathong, Sureeyatanapas, Arunyanart and Niyamosoth investigating the beverage sector in Thailand [11] or Vu, Grant and Menachof investigating the Hai Phong ports in Vietnam [12]. However, LSQ research in global arenas is not as prominent as it is in the developed West, despite these regions having a critical role and presence in global supply chains [9].

Further, while there is a fair consensus in the logistics literature over the past 20 years about what variables constitute LSQ, there has been little research on these topics in the context of one firm, e.g., a manufacturer or LSP. Kilibarda, Andrejić and Popović's 2020 literature review argues that prior LSQ research has, *inter alia*, not deeply investigated causes of poor quality, focused primarily on the customer's perspective, and not looked across the longer/wider supply chain, i.e., determining a cumulative effect of LSQ among various supply chain actors [6]. These three gaps drive a need to deeply investigate perspectives of an individual firm and its tier one customers.

Such research is not within the usual pantheon of hypothesis-driven empiricism and at this nascent stage must necessarily be exploratory. Thus, in addition to LSQ theory noted above, Carter, Kosmol and Kaufmann's supply chain practice view (SCPV) provides a useful epistemology [13]. SCPV encourages researchers to holistically consider how SCM practices affect performance of the individual firm through the resource-based view (RBV) and across the wider supply chain network using a relational view perspective.

Hence, this paper explores LSQ variables of one Thai LSP, henceforth referred to as 'TLSP' for confidentiality and anonymity reasons, and its customers in a granular rather than aggregate approach. The research objective is to understand whether attitudes towards LSQ of logistics users, i.e., customers and their major LSP provider, TLSP, are similar or different.

This exploratory study comprises the first phase of a project considering all LSQ and related operational aspects

of TLSP for all its customers including those in the supply chain before retail, in-store retailers, and online retailers. This paper's contribution for the first phase comes from determining those variables that are important to both parties and providing information for TLSP on how customers perceive its LSQ relative to its own internal perceptions. This will allow TLSP to assess and improve its overall LSQ 'package' and should also provide a 'road map' for other logistics service providers to do likewise. Additionally, this information should lead to a set of measures for future empirical studies with TLSP as well as with other LSPs in Thailand and other Southeast Asian countries.

II. METHOD

An online survey was conducted, in conjunction with assistance from TLSP, of its operational and sales managers across its business units, and its customers incorporating 'soft' support, i.e., an introduction from TLSP [14]. This represented a convenience sample, which is appropriate for exploratory research. The survey was designed in English, translated into Thai, and back translated to English to ensure integrity of the questions and that meaning was not lost. It was conducted in early 2020 before the coronavirus or COVID-19 pandemic took hold in the Thai economy.

The survey instrument for TLSP and its customers had three sections and presented twenty LSQ variables, which are listed in Tables I and II. These variables were derived from variable sets posited by Grant [15] and Banomyong and Supatn [16] and used for both TLSP and its customers.

Section A of the instrument asked respondents how important the variables are to them, using a five-point Likert scale with anchors of 1=Very Unimportant and 5=Very Important [14]. Section B asked respondents about their perceptions of TLSP's logistics service provision, i.e., its LSQ, again using a five-point Likert scale with anchors of 1=Much Worse than Expected and 5=Much Better than Expected.

This collection of importance and performance perception data is in concert with Cronin and Taylor's performance score-only instrument termed SERVPERF, which they found superior in terms of construct validity and operational efficacy when empirically compared to SERVQUAL scores [17].

Section C was a bit different for TLSP and customer respondents. There were four common questions pertaining to relationship power between TLSP and its customers, the customers' ability to switch LSPs, the customers' feelings towards TLSP, and the customers' opinion of overall LSQ at TLSP. Additionally, customers were asked about the type and nature of their business, their average number of deliveries per week, the approximate percentage of deliveries provided by suppliers, their own firm, and a third-party LSP, not limited to TLSP, their use frequency of TLSP in the following year, and the average staff size in usual small and medium size enterprise (SME) bands of 1-9 (micro), 10-49 (small), 50-249 (medium) and 250+ (large).

Twenty-eight responses from TLSP staff and 51 responses from customers were received. Survey data were entered into SPSS, reviewed for errors, and 'cleaned' where necessary. Due to the low number of overall responses, 79, the only analysis available were descriptive statistics [14]. One hundred responses would be required to undertake

exploratory factor analysis of 20 variables, at a ratio of five respondents per variable. Similarly, cross tabulations yielded expected frequencies of less than 5 across numerous cells and hence any χ^2 tests were statistically meaningless. This suggests that a larger response set is needed to critically examine such relationships.

III. FINDINGS AND DISCUSSION

Table I shows average scores for variable importance were 2.00 or less for TLSP responses and 1.52 or less for customers.

TABLE I. Importance of LSQ Variables

LSQ Variable	Average Importance to TLSP	Average Importance to Customer	Delta (Cust. minus TLSP)
Easy ordering of service	1.68	1.35	-0.33
Ongoing information and status of a delivery	1.29	1.31	-0.02
Immediate action on complaints	1.36	1.25	-0.11
Prompt and effective handling of returns	1.68	1.31	-0.37
Proper after-delivery support	1.93	1.42	-0.51
Timely response to requests	1.18	1.28	-0.10
Trust at all times	1.14	1.22	-0.08
Commitment at all times	1.61	1.36	-0.25
Integrity at all times	1.39	1.24	-0.15
Helpful customer service representatives	1.32	1.22	-0.10
Provision of customized products or services	2.00	1.52	-0.48
Competitive price quotes including discounts and payment terms	1.71	1.32	-0.39
On-time delivery on the date promised	1.14	1.30	-0.16
Complete orders	1.50	1.30	-0.20
Appropriate order cycle time	1.61	1.40	-0.21
Accurate invoices	1.36	1.30	-0.06
Products arrive undamaged	1.39	1.28	-0.11
Consistent order cycle time	1.68	1.30	-0.38
Accurate orders	1.50	1.36	-0.14
Consistent service quality	1.29	1.24	-0.05
Total	29.76	26.28	-3.48

(Scale legend: 1=Very unimportant – 5=Very important; Yellow highlight indicates negative delta > 0.20)

The LSQ variables with the most importance to TLSP respondents on average were in order: provision of customized products or services, proper after delivery support, prompt and effective handling of returns = consistent order cycle time, and appropriate order cycle time = commitment at all times. For customers, the variables with the most importance on average were in order: provision of customized products or services, proper after delivery support, appropriate order cycle time, commitment at all times, and accurate orders. Thus, there was some convergence between TLSP and customers on LSQ variable importance.

The four variables of least importance to TLSP respondents on average were in order: trust at all times = on-time delivery on the date promised, timely response to requests, and consistent service quality. The four variables of least importance to customers on average were trust at all times = helpful customer service representatives, integrity at all times, and action on complaints. Other than trust at all times, there was little convergence here, suggesting homogeneous consideration of unimportant LSQ variables across all respondents.

The delta between TLSP and customer was negative for all twenty variables, i.e., the importance to customers was less than for TLSP respondents. Large deltas, greater than the absolute value of 0.20, are highlighted in yellow in Table I. This difference affects several of the most important variables to each group, indicating TLSP attaches more importance to them overall.

These are relatively low ratings for importance, especially compared to service expectations discussed below. The psychometric properties of the measurement scales were tested for content, or face, validity, i.e., the scale is measuring what it is supposed to measure [14]. Content validity was intuitively developed and established through the literature [15, 16] as noted above.

This suggests that TLSP should communicate internally with staff and externally with customers concerning importance scores. This is not to infer that TLSP runs the risk of ‘disconfirming’ customer expectations per Oliver’s paradigm [3]. However, they should determine why the average importance of all LSQ variables is 1.31 for customers, between the anchor of 1=Very Unimportant and the next position on the Likert scale. For example, do customers really care about LSQ variable importance but are apathetic if they perceive that TLSP or other LSPs are not meeting their needs? Or is importance unnecessary if the variable is a hygiene factor and must be part of a set of LSQ features?

Furthermore, the average importance for TLSP respondents was not much higher at 1.49. This suggests some internal communication with managers would also be useful to go deeper into quality issues and wider supply chain consideration as suggested by Kilibarda, Andrejić and Popović [6]. For example, are TLSP’s tier one suppliers providing appropriate LSQ for them such that they can pass along those levels of LSQ to their customers? Or do LSQ variables relate to internal key performance indicators (KPIs) at either TLSP or customer that may not be aligned?

These suggestions raise the issue of SERVPERF’s robustness for content validity in this case [17], however it wasn’t not follow up with a sample of respondents. These

experienced significant growth in ecommerce [9], this aspect of research for TLSP will be conducted in a later phase.

Regarding firm size, four were micro, 16 were small, 10 were medium and 21 were large. Thus, almost 52 percent had 50 employees or less and fell within the SME category. The average number of deliveries per week customers received were 16, or 3 per weekday. The percentage of average delivery methods were 16 percent for supplier delivery, 10 percent for own delivery, and 72 percent for third-party delivery. These frequencies confirm the importance of LSPs for SMEs in Thailand and hence drive a need for LSPs like TLSP to assess, manage, and integrate it LSQ and business practices [7] from a holistic SCPV [13] to ensure their own as well as their customers' success and economic sustainability.

IV. CONCLUSIONS AND CONTRIBUTIONS

A. Theoretical Contributions

This exploratory research, the first phase of a much larger project, has confirmed certain aspects of LSQ importance and perceptions of LSP performance, in this case one LSP, TLSP [4, 17]. This research was different to the usual hypothesis driven empirical studies of sector-wide firms by being focussed on one LSP firm, TLSP, thus making use of the SCPV [13] in its investigation and adding to this recent stream of research.

B. Practical Contributions

While notions of SCPV I've already been discussed regarding theoretical contributions, some important findings for TLSP emerged from the research. While customers believed all LSQ variables were less important to them than to TLSP and considered TLSP's service provision performance was better than TLSP perceived, compared to the Thai logistics service provider, there nevertheless appears to be a disconnect between TLSP's internal perceptions of customer expectations and perceptions of TLSP's LSQ. This may be down to miscommunication, or lack of regular and ongoing communication with customers. Several suggestions were made for TLSP to consider and follow up with customers, and these will be revisited with the firm as future research phases are developed. Other LSP firms might benefit from this study's findings, at least in terms of reflecting on their own LSQ variables and operations with customers.

C. Limitations

As always, this research and study is not without limitations. While this one firm phenomenon was delimited at the outset, the small number of responses from within TLSP and its customers prevented further quantitative analysis to study any relationships among variables. Future phases will need to have a more robust data collection process to enable such analysis. Finally, the data was collected at the beginning of the coronavirus COVID-19 pandemic in early 2020. Business activities in Thailand, like elsewhere across the globe, were curtailed for the best part of

one and one-half years and are only now beginning to return to pre pandemic levels in late 2022. As a result, the current economic and business climate for not only TLSP but also its customers may have changed significantly. Any such changes will also need to be revisited with the firm as future research phases are developed.

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