RELATIONSHIP QUALITY: AN ONLINE RETAIL ERSPECTIVE

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ABSTRACT

This paper develops a model that empirically examines relationship quality (RQ) as a mediating factor between antecedents (aspects of B2B service quality) and outcomes (aspects of loyalty). Using a data set from retailers with an online presence, the analysis, using Structural Equation Modeling, shows that RQ dimensions, namely trust, satisfaction, and communication quality are positively influenced by service quality dimensions. Satisfaction is shown to have a significant influence on attitudinal loyalty and trust is significantly linked to behavioral aspects of loyalty, that is, retailer's willingness to pay more for the service. While communication quality is not significantly linked to loyalty, it is influenced by service quality antecedents.

KEYWORDS: Relationship Quality, B2B, Service Quality, Loyalty, Web Services

INTRODUCTION

Online retailing is generating increased interest from marketing researchers in line with its rapid growth in a commercial context but, as Verma et al. (2016: 206-207) point out, this line of research is 'fairly recent … broad in scope but still fragmented'. They go on to suggest that concepts from Relationship Marketing (RM) theory may be useful in the development of a relational model in an online retailing context. Research in the RM domain has extensively examined core relational constructs such as trust, satisfaction, and loyalty, in order to better understand the nature of buyer-supplier relationships (Palmatier, Houston, Dant and Grewal, 2013; Watson, Beck, Henderson and Palmatier 2015; Zhang, George, Palmatier and Dant, 2016). These concepts are particularly pertinant in the online context as the intangible nature of the web coupled with minimal physical contact throughout the relationship can increase risk perceptions and hinder the development of loyalty particularly in a B2B context. Recently Holmlund, et al. (2016) highlighted deficiencies of current research relating to buyers purchasing complex technology based services from third party suppliers and suggest while there has been some contribution in supply chain and operations management literatures there is a disconnect exploring these issues from the marketing literature that warrants future investigation. Taking into consideration the retail and

services sector is increasingly driven by technology and that web technology is progressively taking center stage, the nature of B2B relationships is undergoing fundamental transformations with implications for both parties involved. This study addresses these concerns and develops a framework that examines the links between perceived service quality, relationship quality and loyalty.

CONCEPTUAL BACKGROUND AND HYPOTHESES DEVELOPMENT

Relationship Quality (RQ) is a key pillar of relationship marketing theory (Svensson and Mysen, 2011). RQ is the focal construct within the study and represents the overall evaluation of the strength of a relationship between a buyer and seller. Despite the considerable body of literature on RQ there continues to be a high degree of ambiguity about the dimensions that constitute this higher-order construct, its determinants and outcomes in B2B settings (Athanasopoulou, 2009; Svensson and Mysen, 2011). Empirical studies modelling RQ largely operationalize the construct as a global/composite construct. This study takes a different approach and disaggregates the construct into its component parts. The disaggregated model tests the relationship between RQ dimensions and loyalty. Adopting the traditional RQ components, we extend its operationalization by including communication quality as a third dimension, considered an intrinsic element of strong relationships by Zhang et al. (2016). The inclusion of communication quality also answers a recent call for research to examine how communication influences different types of loyalty. This research also compares the relative performance of the global construct of RQ with the proposed disaggregated RQ model. Furthermore, testing the multi-dimensional RQ construct in an online B2B context addresses recent concerns regarding theoretical deficiencies in relationship marketing theory, acknowledging that RQ studies in an online context are considerably under-researched (Keating, Kriz, Alpert, and Quazi, 2011).

Studies exploring professional credence based services are scarce (Keh and Pang, 2010) and in a B2B online context are even more rare (Paluch and Wünderlich, 2016). Recent studies on service quality recommend that its' operationalization should be specifically tailored to the industry under investigation (Gounaris et al., 2010). Empirical findings strongly suggest that perceived service quality is a key contributor to relationship development and loyalty towards the service provider (Rauyruen and Miller, 2007). This study adapts the multidimensional INDSERV scale (Gounaris, 2005) in the model. SQ is operationalized as potential quality, soft and hard process quality, and output quality.

Potential quality relates to the a priori elements that must be in place in order adequate service provision and may influence the search/evaluation

pre purchase stage of the customer journey (Gounaris et al., 2010). It is proposed that this component is positively related to economic satisfaction and communication quality. Trust is less likely to play a significant role in the pre purchase or early stage of the relationship as typically trust occurs following frequent interaction during different stages and phases as the relationship develops (Palmatier, Scheer, Evans, and Arnold, 2008).

H1a: Potential quality relates positively to satisfaction
H1b: Potential quality relates positively to communication quality

Soft and hard process quality describes the actual service process. Soft process quality refers to *how* the service is performed especially relating to the nature of the interaction between the service provider and the client and the process by which the core service is delivered. It specifically relates to the service provider's benevolence and willingness to act in the best interests of the client (Gounaris, 2005). Hard process quality pertains to *what* is being performed during the service process. It relates to the more objective and task oriented issues involved in providing the services for example, staying within budget, meeting deadlines, and understanding the customer's needs. It refers to the service blueprint the provider uses to deliver the service. While soft process quality relies heavily on building trust perceptions, hard process quality is expected to be a significant driver of satisfaction and communication quality.

H2: Soft Process Quality relates positively to trust
H3a: Hard Process Quality relates positively to trust
H3b: Hard Process Quality relates positively to satisfaction

Output quality is an indicator of the client's evaluation of the overall end-result of hard and soft parameters. At this stage of the purchasing process buyers are more confident to assess and make a judgement on whether they perceive the solution provider to be trustworthy and reliable based on the services they have received. They are better able to evaluate how satisfied they are with the goals achieved and the outcome of the financial rewards from investing in the relationship with the provider.

H4a: Output quality relates positively to trust
H4b: Output quality relates positively to satisfaction.

Research shows that cultivating loyalty clearly has important managerial implications, such as reducing uncertainty, increasing efficiency, and improved performance and profitability (Ganesen et al., 2010). Recent research contends that product loyalty cannot be generalized to service loyalty (Fullerton, 2014). The credence aspect of professional services augments perceived risk for the buyer, particularly in relation to relational

exchanges operating in complex, technology driven service industries (Paluch and Wünderlich, 2016) in which case loyalty is more dependent on relationship development. Empirical evidence shows direct effects between trust and loyalty in B2B settings (Aurier and Goala, 2010). Trust is considered a necessary ingredient for long-term orientation as it shifts the focus to future conditions (Briggs and Douglas, 2010) particularly in the context of online relationships.

H5a: Trust relates positively to behavioral loyalty
H5b: Trust relates positively to attitudinal loyalty.

The positive association between customer satisfaction and loyalty intentions is considered a fundamental axiom of the relationship management concept (Davis-Sramek et al., 2009). However, the evidence lies predominantly in favor of B2C studies (Naumann, Williams, and Khan, 2009). Recent studies in high technology retail and services contexts have also asserted its' importance with theoretical and empirical evidence showing a link between satisfaction and retention, repeat purchase and loyalty (Dagger and David, 2012).

H6a: Satisfaction relates positively to attitudinal loyalty
H6b: Satisfaction relates positively to behavioral loyalty

Communication quality has been considered to be an intrinsic element of RQ and empirical evidence shows that these two concepts are also associated in a B2B setting (Svensson and Mysen, 2011). Communication is also critical for services that are difficult to evaluate and requires firms to provide timely, relevant and trusted information on products and services offered (Eisingerich and Bell, 2007). Watson et al. (2015) make recommendations for research to examine communication as an antecedent variable to both attitudinal and behavioral aspects of loyalty. This would not only expand our understanding of loyalty antecedents in a relationship marketing context but would provide a richer set of options for management to tailor their marketing efforts to enhance loyalty behaviors and attitudes towards the service provider.

H7a: Communication Quality relates positively to behavioral loyalty
H7b: Communication Quality relates positively to behavioral and attitudinal loyalty

METHODOLOGY AND ANALYSIS

To address the research issues and test the hypotheses this study investigates the relationship between retailers and their web solution service providers (WSSPs). WSSPs are defined as a firm that offers

customized services for developing, designing, and marketing websites including, hosting, domain registration, and maintenance and support services specifically tailored for their customers' online business. Small retailers with an online presence were selected as the research setting.

Figure 1: Hypothesized Model
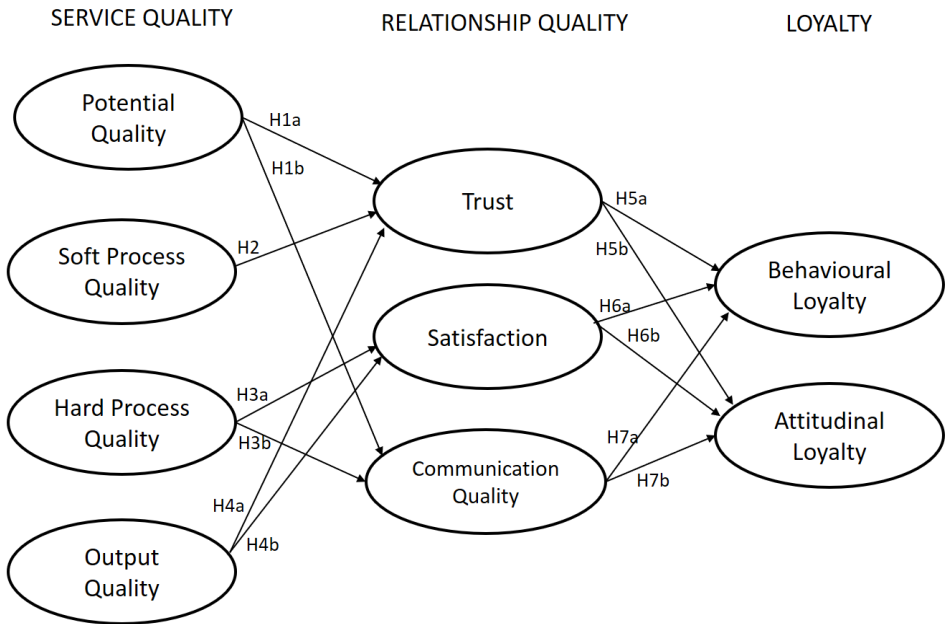
A list of small (defined as less than 50 employees) Irish retailers was developed using commercial databases supplemented with Internet searches in key categories, which resulted in a total of 843 such organizations being sent a questionnaire (in hard copy) which included an invitation to complete the survey online. Respondents were only included in the final sample if they had used a web service solution provider to develop or manage their website - those who developed and managed their own websites were excluded from the sampled firms. A combined total of 133 valid responses from both paper and online versions were collected - a response rate of 16%, which compares favorably to other B2B response rates. All respondents were either firm owners or senior managers directly responsible for their retail firms' online presence, so it is reasonable to expect that they are aware of the constructs in this study. No significant differences were found between the two modes of administration of the survey. Multi-item scales were adapted from previous studies. Trust items were taken from Cho (2006) and Ganesan (1994). Satisfaction items were taken from Geyskens and Steenkampf (2000). Communication quality items were taken from Mohr and Stohi (1995). The

INDSERV scale (Gounaris, 2005) was used to measure service quality. The questionnaire used seven point Likert scales anchored with 'strongly disagree' and 'strongly agree'.

The study adopted the two-step approach for the measurement and structural model assessment using Lisrel 8.80 (Bagozzi and and Yi, 2012). Confirmatory factor analysis (CFA) shows a one factor model for each component of RQ which revealed a respectable model fit (RMSEA = .05; χ^2/df = 120.27 / 87; *P*-value = .000; NFI = .97; SRMR = .047; GFI = .89). Items with low loadings and unacceptable R^2 values in their measurement equations were removed Support for construct and convergent validity is demonstrated by the composite reliabilities (all over 0.83) and high average variance extracted (AVE) (all over 0.6)..

After evaluating the measurement model for each construct, the paths of the structural model hypothesized in Figure 1 were analyzed. Figure 2 presents the results of the hypothesized mediated model. The proposed mediated model demonstrates an acceptable model fit, the RMSEA = .06; Chi-sq/df = 986.29/610; *P*-value = 0.000; SRMR = .07; NNFI = .98; CFI = .98; GFI = .71. The results of the mediated model show support for the multi-dimensional construct of SQ as a driver of the hypothesised RQ variables. All hypotheses linking SQ variables to RQ variables were supported with the exception of H3 and H4, showing partial support - H3a (hard process quality link with satisfaction), and H4b (output quality link with trust). All other antecedent hypotheses are supported – H1ab, H2, H3b, and H4a. Similarly, the results show partial support for the RQ variables linking to loyalty. Trust and satisfaction demonstrate significant links to behavioural and attitudinal loyalty thus H5a, H5b and H6a, H6b are supported. Communication quality is not supported as a driver of both attitudinal and behavioural loyalty therefore H7a, H7b is rejected.

In order to assess the role RQ plays in the model we also tested the direct effects of SQ to loyalty, the findings of which are detailed in Figure 3. While the global fit statistics are within acceptable parameters RMSEA = .07; Chi-sq/df = 324.50 / 195; *P*-Value = 0.000; NNFI = .98; CFI = .98; SRMR = .054; GFI = .82. The mediating model, by comparison is stronger. More importantly, only two out of eight paths are supported in the alternative model namely, soft process quality and output quality on attitudinal loyalty. Leading us to conclude that SQ affects attitudinal and behavioural loyalty indirectly through satisfaction and trust. In summary, all hypotheses for the conceptual model were supported with H3 and H4 partially accepted.

Notably, we find that that RQ is an important mediating construct between SQ antecedents and Loyalty outcomes.

Figure 2: Mediated Model Results

Construct Path			Path Coefficient	T-Values		Outcome
Potential SQ	→	Satisfaction	0.13	2.57**	H1a	Supported
Potential SQ	→	Communication Qual.	0.11	5.47***	H1b	Supported
Soft Process Quality	→	Trust	0.14	6.61***	H2	Supported
HardProcessQuality	→	Satisfaction	0.12	0.04	H3a	Not Supported
Hard Process Quality	→	Communication Qual.	0.10	2.91**	H3b	Supported
Output Quality	→	Satisfaction	0.12	4.14***	H4a	Supported
Output Quality	→	Trust	0.12	0.34	H4b	Not Supported
Satisfaction	→	Behavioural Loyalty	0.12	2.97**	H5a	Supported
Satisfaction	→	Attitudinal Loyalty	0.08	3.06***	H5b	Supported
Trust	→	Behavioural Loyalty	0.12	3.14***	H6a	Supported
Trust	→	Attitudinal Loyalty	0.09	6.89*	H6b	Supported
Communication Qual.	→	Behavioural Loyalty	0.11	0.54	H7a	Not Supported
Communication Qual.	→	Attitudinal Loyalty	0.07	0.19	H7b	Not Supported

Satisfaction: R^2 = .59: Trust: R^2 = .77: Communication Quality: R^2 = .69: Behavioural Loyalty: R^2 = .28: Attitudinal Loyalty: R^2 = .56
RMSEA = .06; Chi-sq/df = 986.29/610; P-value = 0.000; SRMR = .07; NNFI = .98; CFI = .98
  * $p<0.05$; ** $p<0.01$; *** $p<0.001$

Figure 3: Direct Path Results

Construct Path			Path Coefficient	T-Values	Outcome
Potential SQ	→	Behavioural Loyalty	0.15	.060	Reject
Potential SQ	→	Attitudinal Loyalty	0.12	.49	Reject
Soft Process Quality	→	Behavioural Loyalty	0.21	1.36	Reject
SoftProcessQuality	→	Attitudinal Loyalty	0.17	3.81***	Accept
Hard Process Quality	→	Behavioural Loyalty	0.15	-.45	Reject
Hard Process Quality	→	Attitudinal Loyalty	0.11	.38	Reject
Output Quality	→	Attitudinal Loyalty	0.17	2.15**	Accept
Output Quality	→	Behavioural Loyalty	0.13	.44	Reject

Behavioural Loyalty: R^2 = .36; Attitudinal Loyalty: R^2 = .59
RMSEA = .07; Chi-sq/df = 324.50 / 195; P-Value = 0.000; NNFI = .98; CFI = .98; SRMR = .054; GFI = .82
  * $p<0.05$; ** $p<0.01$; *** $p<0.001$

DISCUSSION AND MANAGERIAL IMPLICATIONS

By contextualising this research to an emerging services industry such as web solution services, this adds to the online retailing and services literature and deepens our understanding of relational exchanges within this growing services setting. This study also addresses recent concerns regarding an overreliance on models assessing direct links between antecedent and outcome variables in relationship marketing studies (Watson et al., 2015). To untangle direct versus indirect effects the model developed for this study examined the role of RQ as a mediating variable within the framework as well as an alternative direct effects model. As proposed, the mediating model performed much stronger indicating that relationship quality has a significant role to play in B2B relationships operating online. This study's findings show that the examination of service

quality antecedents and their resulting impact on RQ variables clearly indicates that future studies investigating credence based professional services should include service quality. B2B web services is a complex field, and web related technologies are inherently uncertain and ambiguous, so providers have been strongly advised to implement strategies - before, during and after service purchase - to ensure the successful delivery of high quality services and thus satisfactory customer outcomes. This study extends the traditional RQ framework and validates communication quality as an RQ component in the context of this study. The inclusion and validation of communication quality as a RQ component not only successfully addresses the need to explore this phenomenon (Lages et al., 2005) in service oriented relationships but its application as a component in the RQ framework extends and broadens the scope of the construct in the online domain (Verma et al., 2016).

Managers of web solution services need to also be aware that while relationship quality is multi-dimensional, not all dimensions contribute equally to loyalty. Different RQ dimensions exert different effects on loyalty. While communication quality was not found to be a direct antecedent of loyalty in this study, the results show that managers still need to maintain a satisfactory level of communication quality with their existing customers and new customers particularly at the pre purchase stage and during the actual service process. Furthermore, contributions to the loyalty research have highlighted an over reliance on repeat purchasing behavior and emphasized a need for more investigations to explore both attitudinal and behavioural dimensions in a service context (Watson et al., 2015). The findings from this study successfully address this issue and given the significance of the RQ dimensions influence on the loyalty components the findings reaffirm the need to continue to explore attitudinal loyalty in credence based services (Chiou and Drige, 2006)

LIMITATIONS AND FUTURE DIRCTIONS

This study was constrained by the sample size and the fact that the model developed is based on data from a small retailer perspective: SMEs have defining characteristics, so it would be interesting to replicate the research using larger organizations. Moreover, while the findings offer initial insights, they should be verified with service categories other than credence based ones. The web service solutions industry is a relatively novel context, and while the study yields interesting findings it also opens the door to other researchers to study the relationships SME retailers form with their WSSPs in the context of, for example, cloud adoption, and mobile solution services to test the robustness of the proposed model.

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