

# **Group Differences Associated with the Effect of Interaction Experience on Satisfaction and Willingness to Recommend: More Questions than Answers**

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## **Abstract**

The importance of building customer's experience over multiple interaction episodes is often overlooked despite being well documented by especially IMP researchers. If the experiences that customers gain over multiple interaction episodes can improve their willingness to recommend the firm, we can ask if this causal chain is relevant across all customer groups within the firm? Our paper explore this question using a simple model to explain willingness to recommend and then subject the model to empirically generated group comparisons. We motivate the use of an interaction experience construct and consider its impact on willingness to recommend directly as well as via the commonly employed influence on customer satisfaction. Having confirmed these relationships we explore group differences related to key theoretical dimensions of business relationships. We employ a focal firm approach in a business-to-business context and report the results emanating from 1004 responses. The observation of group differences and the lack thereof raises more research questions.

## **Introduction**

Business-to-business marketing literature benefits from multiple perspectives on how firms can improve their performance by enhancing their relationships with customers via a never ending quest for increased customer satisfaction that promotes customer loyalty – often more indirectly than directly. Within this quality-satisfaction-loyalty-performance paradigm the importance of the customer's experience during the interaction is often overlooked despite being well documented by especially IMP researchers (Biggemann and Buttle, 2009; Brennan and Turnbull, 2000). Add to this the recent advances in customer experience research (Klaus and Maklan, 2012, 2013; Lemke et al., 2011; Palmer, 2010; Verhoef et al., 2009; Grønholdt et al., 2015 and Sharma & Chaubey 2014) and it is clear that customer experience has emerged as the one of the most important aspect in achieving success for companies across various industries. In addition, Service's Marketing and CRM researchers showed that customer recommendations is a powerful weapon in the competitive arsenal of modern marketers (Hervas-Drane, 2015; D. Olaru et al., 2008; Schreier et al., 2012).

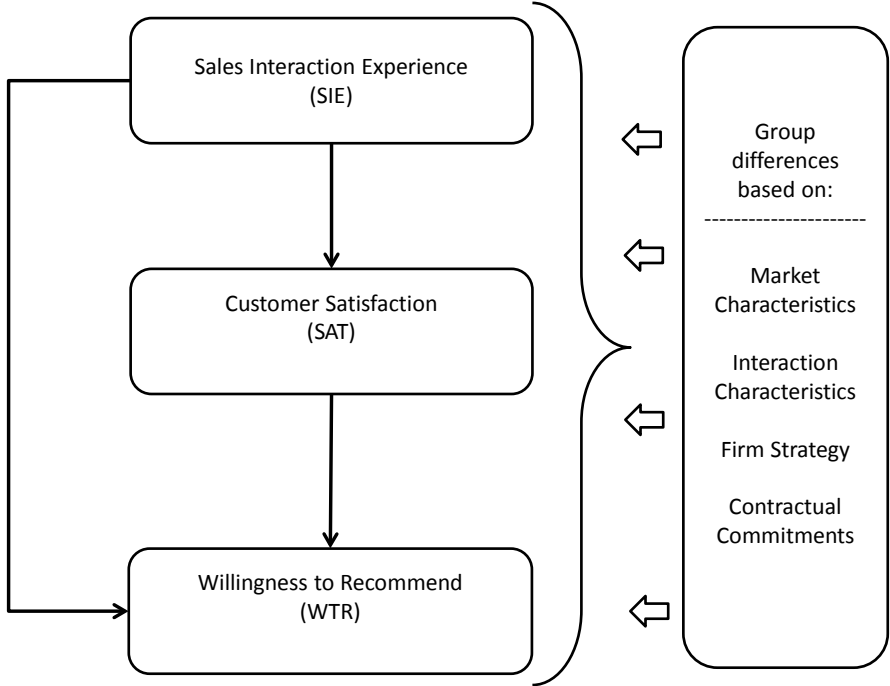
However, some key question seems to remains unanswered. Amongst these are the issue of what causes variation loyalty estimation. In short: Does a typical casual chain to explain loyalty hold true across various customer groups? Our paper set out to explore this question using a simple model to explain willingness to recommend and then subject the model to empirically generated group comparisons. In order to achieve this objective we use a latent sales interaction experience construct understand how interaction drives both willingness to recommend and customer satisfaction as well as maintaining the commonly used satisfaction to recommendation linkage. Having confirmed these relationships we explore group differences related to four theoretical dimensions. These include groups that are indicative of different market segments, results of strategy choice by the firm, contractual commitments and types of interaction. We employ a focal firm approach and report the results emanating from 1004 respondents.

Following this brief introduction we provide a synopsis of relevant literature to construct a model that depicts the relationship between Sales Interaction Experience (SIE), Customer Satisfaction (SAT) and Willingness to Recommend (WTR). The literature review is followed by a methodology section to explain both the data collection and analytical procedures employed in the study. The paper then reports the results before drawing some conclusions and offer questions for future research. The

contribution of the paper resides primarily in the notion that although business-to-business marketing has benefitted from the scientific isolation of near linear causal effects, it appears useful to consider the heterogeneity that may exist between groups that may or may not distort assumed linear associations. This, in theory at least, should facilitate the development of marketing strategies and policies that are less inclined to be a one size fits all approach.

**Literature review**

The notion that customer feedback is a powerful tool to attract new customers and enhance customer loyalty is not new in marketing literature (de Haan et al., 2015; Ofir and Simonson, 2001). By sharing positive customer sentiments firms can enhance loyalty and ultimately improve firm performance (Sin et al., 2005; Uncles et al., 2010). In the vastness of contributions to this chain of thought two key notions (among others) appear to surface with regularity: (a) The notion that that customer satisfaction is the primary feeder for positive customer responses about the firm and its products and (b) buy enhancing the customer experience during interaction with the selling firm customer satisfaction levels can be improved which may translate into improved willingness to recommend the firm to others. These relationships are depicted in Figure 1.



**Figure 1: Conceptual framework for the study**

Of course Figure 1 is a gross over simplification of the drivers of WTR. For example Olaru et al. (2008) demonstrated the importance of perceived value, as determined by service benefits, relational benefits and monetary sacrifice, and its impact on repurchase intentions as well as willingness to recommend. Also, willingness to recommend is not an end in itself. Similarly Aksoy et al. (2011) show how moderators like adoption recency and contact efficiency moderates the link between willing to recommend and willingness to purchase in a service setting. Nor is there complete clarity on the distinctiveness of WTR as a construct. Marinkovic et al. (2012) see WTR and Share of Wallet as integrated components while Molinari, Abratt, & Dion, 2008 view WTR as a component of positive word-of-mouth communication. Moreover, some less recent studies in services marketing employs WTR as a measurement of loyalty (Drake, Gwynne, & Waite, 1998; Zeithaml, Berry, & Parasuraman, 1996).

Many other similar examples abound in the business-to-business marketing literature. The objective of this study is not to construct a parsimonious model of WTR – rather the objective is to construct a model that exhibits highly satisfactory psychometric properties in order to facilitate the multi-group analysis. Nevertheless we operationalise the key variables in our theoretical model as follows:

### **Sales interaction experience**

As already noted Klaus and Maklan (2013) maintains that, the growing view of many researchers is that customer experience is generated through a longer process of company-customer interaction across multiple channels and is generated through both functional and emotional clues. This view acknowledges that it is the interactions between buyers and sellers that are essential for relationship building and this “interactionist perspective” (Biggemann and Buttle, 2009:549) is therefore associated with the customer experience – as it views interaction as a continuous process of “action-evaluation-reaction” in which the reaction of one party may initiate further reaction from another. In short: The experience is created at the interaction. The importance of customer experience in business-to-business relations enjoys increasing support. For example, Hollyoake (2009) argues that bonded customer experience is based on the notion of joint working and co-creation and in particular it is the continual contact across multi-level, multi-functions and joint working/co-creation that differentiates the B2B firm. It is not so much the relationship or the way that customers are managed that differentiates – as this has become broadly similar. It is rather the experience developed through the relationship that makes the difference. Also, Palmer (2010) posits that customer experience is interaction with different elements of a context created by the service provider, while Verhoef et al.(2009) argue that customer experience captures cognitive evaluations, affective responses, and social and physical components. Importantly Lemke et al. (2011) demonstrated that customer experience quality is judged with respect to its contribution to value-in-use and that in assessing experience quality in B2B contexts, customers place greater emphasis on firm practices that focus on understanding and delivering value-in-use. Therefore, for the purposes of this study we hypothesise that:

- H1:** Sales interaction experience (SIE) is positively associated with customer satisfaction (SAT), and  
**H2:** Sales interaction experience (SIE) is positively associated with willingness to recommend (WTR).

### **Customer satisfaction**

Austen et al. (2012) considers customer satisfaction as the corner stone of business-to-business marketing and Čater & Čater (2009) refers to it as a common key construct in considering B2B relationships. Ryding (2010) adopt the earlier approach by Rust and Oliver (1994) to argue that customer satisfaction is assumed to be a summary cognitive and affective reaction to a service or incident from experiencing a service quality encounter and comparing that encounter with what was expected. This approach, emanating from the services marketing literature appears to be consistent with the focus of the current study on customer experience that results from multiple interaction episodes and is therefore adopted. Creating satisfaction in general brings about many benefits for organisations and early work by Fornell (1992) argued that satisfied customers are less price sensitive, tend to buy additional products and are less influenced by competitors, staying loyal for longer. Importantly, customer satisfaction has been shown to be as significant driver of repeat purchases, cross-selling opportunities, positive word-of-mouth, price elasticity, and customer loyalty in business-to-business markets (see for example Bearden & Teel, 1983; Dick & Basu, 1994; Fornell, Johnson, Anderson, Cha, & Bryant, 1996). Kumar et al. (2013) reports an abundance of theoretical and empirical studies that considered the influence of customer satisfaction on loyalty and we therefore hypothesised that:

- H3:** Customer satisfaction (SAT) is positively associated with willingness to recommend (WTR).

## Willingness to recommend

Willingness to recommend (also referred to as recommendation intention by some authors) received significant attention since Reichheld (2003) published the Net Promoter Score (NPS) and beyond that a significant stream of research rekindled the original Word-of-Mouth (WOM) work by Dichter (1966) as the e-commerce age gained prominence (Kietzmann & Canhoto, 2013). In essence the value of WTR lies therein that when clients are willing to recommend a product/service to relatives or friends, they do more than indicate that they have received good economic value from a company, they also put their own reputations at stake (Eisingerich and Bell, 2007). Moreover, such a recommendation is not limited to the transactional level. Denning (2011) showed that in many of the industries the percentage of customers who were enthusiastic enough to refer a friend or colleague, correlated directly with whether they actually recommended the firm. The relationship between WTR and actual behaviour appears to be strong. For example Keiningham et al. (2007) reported that the likelihood to recommend correlates highly (80%) with actual customer behaviour. More explicitly, if customers reported that they were likely to recommend a particular company to a friend or colleague, then these same customers were also likely to actually repurchase from the company, as well as generate new business by referring the company via word-of-mouth. This is of course the key reason which drives proponents of NPS to recommend it as the most important loyalty measure. Many other authors (Evert de Haan et al., 2015; Hanson, 2011; Kristensen and Eskildsen, 2014; Leisen Pollack and Alexandrov, 2013; Pingitore et al., 2007) caution against the exclusive use of NPS (based solely on WTR only), but recognises the importance of willingness to recommend. Therefore we include the WTR construct as the dependent variable in our study employ a multi item measure for it.

## Comparing groups

The main thrust of the current study is to establish empirically if the theoretical model (Figure 1) holds under various conditions. In this study the conditions are related to groups membership who were empirically derived. The methodology section (to follow) reveals that the current study employs a focal firm approach, and therefore the empirically derived groups were based on the particular operations of the focal firm. Table 1 reports the construction of the various groups along four different theoretical perspectives. First, *market* factors such as the variance in the characteristics of customer segments (Bonney et al., 2016; Elango et al., 2016; Frösén et al., 2016) and national cultures (Murphy and Li, 2012; Rosenbloom and Larsen, 2003; Ryu et al., 2008) can effect loyalty determinants. Second, IMP researchers and many others has demonstrated that the nature of the *interaction* between buyer and sellers can influence customer behaviour (Biggemann and Buttle, 2009a; Brock et al., 2013; Reid et al., 2004). Third, firm *strategy* choices, especially those relating to key account management and loyalty promotion initiatives, may impact on customers' repurchasing and recommendation behaviours (de Haan et al., 2015; Degbey, 2015; Olaru et al., 2008). Fourth, the literature on *contractual* commitments in business to business relationships (Ehret and Haase, 2012; Li et al., 2013; Ryu et al., 2013; Seshadri, 2013) indicates that often customers are tied to formal contractual arrangements and this influences their loyalty behaviour. This categorisation allowed for the formulation of H4-H12 in Table 1.

## Method

A focal firm approach was considered best for the current study – as it specifically allowed the researcher access to business-to-business customers. The focal firm chosen for this purpose is the official dealer for a global brand of construction, mining and industrial machine range in 11 southern African countries – in addition to Spain, Portugal, Siberia and the Russian Far East. Their African customer base include South Africa, Lesotho, Swaziland, Namibia, Botswana, Angola, Malawi, Mozambique, Zambia and the Democratic Republic of Congo's Katanga Province (the latter in joint venture with a dealer based in France). For the purposes of this study, only customers from Africa were considered and only interactions pertaining to the purchasing of parts were included in an electronic survey (questionnaire).

**Table 1: Customer groups for multi-group analysis**

<b>Theoretical Dimension</b>	<b>Group Name*</b>	<b>Description</b>	<b>Motivation</b>	<b>Hypothesis</b>
Market Characteristics	NEWDUS	More than 95% of the customers of the focal firm are in mining or construction. Therefore, mining customers were compared to construction customers.	There may be differences in the types of products and/or services that mining customers purchase – as compared to construction customers.	<b>H4:</b> There are significant differences between the path estimates for mining versus construction customers.
Market Characteristics	NEWSA	The focal firm conducts its business across multiple country markets. This study included responses from more than clients in the following multiple African countries.	Conventional International marketing literature suggest that customer loyalty experiences can vary across cultural contexts (Murphy and Li, 2012; Rosenbloom and Larsen, 2003; Ryu et al., 2008)	<b>H5:</b> There are significant differences between the path estimates for “South African” versus “non-South African” customers.
Interaction Characteristic	NEWCASH	The focal firm distinguishes between customers who pay cash for parts versus customers that use credit.	The advantages and disadvantages of cash payments and providing customer credit are well documented in management literature. While cash payments may hold specific benefits for the cash flow and ultimate financial performance of the firm, providing customer credit can reap substantial relational benefits.	<b>H6:</b> There are significant differences between the path estimates for cash customers versus credit customers.
Interaction Characteristic	NEWBILL	The focal firm distinguishes between customers who prefer to use sales orders, versus customers that collect their parts from the focal firm.	Billing type represents an interaction variation, and it is therefore useful to establish if differences exist between sales order customers and collection customers.	<b>H7:</b> There are significant differences between the path estimates for customers who have customers collect their purchases from the focal firm, versus customers who use sales orders.
Contractual Commitments	MCC	Many of the focal firm’s customers are subsidiaries of larger firms. For some of these, the focal firm typically establishes a management contract with the holding company to ensure that the relationship is also managed at a higher level.	Consistent with Williams and Naumann (2011) and Yurynets and Tomiuk (2014), it is reasonable to expect that for the customers with parent company contracts management, the focal firm will make especially sure that these relationships are well managed.	<b>H8:</b> There are significant differences between the path estimates for “MCC customers” versus “non-MCC customers.”
Contractual Commitments	EMP2	This is another initiative to promote customer relationships, is that the focal firm established so-called Equipment Management contracts with some customers. Under this project, the focal firm is contracted to maintain and manage equipment on behalf of customers.	Participation in this project suggests that the focal firm extends its services and thereby creates a seemingly deeper form of collaboration with certain customers.	<b>H9:</b> There are significant differences between the path estimates for “EMP customers” versus “non-EMP customers.

Strategy Initiative	LOYCAT2	The focal firm uses conventional methods to calculate Net Promotor Scores (NPS) for all its customers. The firm is then able to separate “ <i>promotor</i> ” customers from “ <i>detractor</i> ” customers. In the focal firm this program exists independently from the loyalty program depicted in NEW100.	The Net Promotors score has received scholarly attention (Jang <i>et al.</i> , 2013; Kristensen and Eskildsen, 2014) and its usefulness is rigorously debated in the B2B literature and beyond. It is conceivable that the experiences of promotors are different from detractors.	<b>H10:</b> There are significant differences between the path estimates for “promotor customers” versus “detractor customers.”
Strategy Initiative	NEW100	The focal firm has a program which allegedly differentiates between the best performing customers based on purchasing volumes and the rest of the customer base. Note that it is not limited to 100 customers.	If the loyalty program is meets its objectives it can be expected that customers who are invited to the loyalty program exhibit significant differences (higher) to those who are not part of the program.	<b>H11:</b> There are significant differences between the path estimates for NEW100 customers versus non-NEW100 customers
Strategy Initiative	NEWKAM	In addition to various loyalty programs the focal firm also establish Key Account Management (KAM) arrangements with certain clients.	If the KAM initiative of the focal firm is effective it can be expected that customers that receive the KAM treatment will respond different to those that do not enjoy such treatment.	<b>H12:</b> There are significant differences between the path estimates for “KAM customers” versus “ non KAM” customers

\* A fictitious names assigned to the program to protect the identity of the focal firm and facilitate the analytical procedures.

The questionnaire included two sections adapted from Lemke *et al.* (2011) and Klaus and Maklan (2013). The first of these measured the interaction experience (3 items) of the customers during their interaction with sales staff of the focal firm while the second focused on the overall customer satisfaction (3 items). A third section focused on intention to recommend the focal firm (3 items) adopted from Bowen and Chen (2001) and (Gil-Saura *et al.*, 2009). Each item was measured using a 10-point Likert-type scale, which was anchored at “1 = very poor and “10 = excellent”.

Each customer interacts with the focal firm via specific unique identifiers (such as a customer number) and this data were also made available to the researchers. The survey was opened for a three-month period using the entire customer base of the focal firm as sample frame. A total of 1356 different customers responded to the survey. Closer inspection of the completed questionnaires revealed that only 1004 were suitable for further analysis.

Given the number of parameters to estimate in relation to number of observations the empirical objective was to use an analytical regime that is less sensitive to sample size and less strict in terms of data and model specification requirements associated with confirmatory causal inference (Hair *et al.*, 2014). It was therefore decided to use a partial least squares path analysis (Ringle *et al.*, 2015; Hair *et al.*, 2012) method, which is also considered to be variance-based structural equation modelling. In this method we first considered the psychometric properties of the measurement model and tested for common method bias – before we considered the structural model and tested the hypothesis 1 through 3. Then we conducted multi-group analysis (Rigdon *et al.*, 2011; Schloderer *et al.*, 2014; Völckner *et al.*, 2010) by employing a procedure by Henseler *et al.* (2007, 2009) to consider differences between various customer groups.

## Results

Confirming convergent validity, in the measurement model all indicator items loaded (table 2) as expected with all the loadings exceeding 0.7 (Anderson and Gerbing, 1988). The t-values generated by the bootstrapping procedure in SmartPLS all exceeded the 1.96 level at the 95% confidence level, demonstrating statistical significance of all the hypothesised paths.

**Table 2: Factor loadings**

	Willingness to Recommend (WTR)	Customer satisfaction (SAT)	Sales Interaction Experience (SIE)
WTR1	<b>0.91</b>	0.64	0.67
WTR2	<b>0.92</b>	0.62	0.66
WTR3	<b>0.91</b>	0.71	0.74
SAT1	0.61	<b>0.86</b>	0.71
SAT2	0.64	<b>0.90</b>	0.76
SAT3	0.63	<b>0.86</b>	0.75
SIE1	0.69	0.76	<b>0.91</b>
SIE2	0.68	0.80	<b>0.93</b>
SIE3	0.72	0.77	<b>0.92</b>

Table 3 (below) confirms that the Fornell and Larcker (1981) criteria for discriminant validity is also met. Discriminant validity is further supported by average variance extracted (AVE) scores – which are: WTR=0.83; SAT=0.77; SIE=0.85. These values all exceed the 0.5 benchmark (Malhotra, 2007).

**Table 3: Latent variable correlations, means, standard deviation, and Fornell & Larcker criteria**

	Mean	SD	WTR	SAT	SIE
Willingness to Recommend (WTR)	8.63	1.70	<b>0.91</b>		
Customer Satisfaction (SAT)	8.41	1.68	0.72	<b>0.87</b>	
Sales Interaction Experience (SIE)	8.65	1.76	0.76	0.85	<b>0.92</b>
<i>Square root of AVE on diagonal</i>					

The composite reliability and Cronbach alpha scores (Table 4, below) all exceed the 0.7 benchmark (Malhotra, 2007), and indicate that the measurement exhibits good internal consistency reliability.

**Table 4: Reliability results**

Latent variables	Composite Reliability	Chronbach's Alpha
Willingness to Recommend (WTR)	0,94	0.90
Customer Satisfaction (SAT)	0.91	0.85
Sales Interaction Experience (SIE)	0,85	0.91

Our data were particular to the field of mining and construction equipment and therefore we test for common method bias by using a procedure recommended by Lindell and Whitney (2001). This procedure recently attracted some criticism regarding its conceptualisation (Podsakoff, MacKenzie, Lee and Podsakoff, 2003) and its effectiveness (Lance, Dawson, Birkelbach and Hoffman, 2010). Nevertheless, it remains widely used – especially in marketing literature. We selected a marker variable which is theoretically unrelated to at least one other scale in the measurement instrument. The correlations among constructs were adjusted, and the statistical significance of the adjusted correlations was determined using the formulae proposed by Lindell and Whitney (2001). This analysis allowed us to construct a matrix (consistent with Grayson, 2007) that contains the zero-order correlations and the adjusted correlations on either side of the diagonal. All the correlations that were statistically significant ( $p < 0.05$ ) before the adjustment, remained significant thereafter. These findings suggest that the relationships depicted in our model are unlikely to be inflated due to common method bias.

To test the hypothesised paths, the structural model was considered. Table 5 (below) shows that all the hypothesised paths yielded statistically significant results at the 95% confidence level. This means that the null hypothesis for H1-H3 is rejected in favour of the alternative hypothesis. Moreover, the model explained 71% ( $R^2 = 0.71$ ) of the variance in customer satisfaction and 60% ( $R^2 = 0.60$ ) in Willingness to Recommend (WTR). These  $R^2$  values can all be considered “large” effects according to the Cohen (1992) criteria.

**Table 5: Path analysis results**

Hypothesis	Path	B	t Statistic	Null Hypothesis
H1	SIE→SAT	0,84	78.69	Reject
H2	SIE→WTR	0,52	11.77	Reject
H3	SAT→WTR	0,28	6.39	Reject

To test the differences between groups we employed a multi-group analysis procedure suggested by Henseler et al (2007) as extended in Henseler *et al.* (2009). The procedure employs a bootstrapping approach to calculate the probability of the difference between parameters between subsamples – provided the parameter estimates for subsamples are known.

The following equation is used for this:

$$P(b^{(1)} > b^{(2)} | \beta^{(1)} \leq \beta^{(2)}) = 1 - \sum_{\forall j,i} \frac{\Theta(2b^{-(1)} - b_j^{(1)} - 2b^{-(2)} + b_i^{(2)})}{J^2}$$

Where:

$J$  = the number of bootstrap samples (5000 in this case)

$b^{(1)}$  and  $b_i^{(2)}$  = bootstrap parameters

$\bar{b}^{(1)}$  and  $\bar{b}^{(2)}$  = means of the focal parameters over the bootstrap samples

$\Theta$  = the unit step function, which has a value of 1 if the argument exceeds 0, and if not it is 0

In the equation, the superscript denotes the two different samples and the  $J$  indicates that comparison of the bootstrap parameters needs to be made. Furthermore, Henseler *et al.* (2009) states that this approach may be considered similar to the known Mann-Whitney-Wilcoxon test. An additional advantage of this approach, is that it does not make distributional assumptions (Henseler *et al.*, 2009; Sarstedt *et al.*, 2011). The results are reported in Table 6.

**Table 6: Results for PLS Multi-group analysis**

Dimension	Group Name	H	N	Path	\beta1-\beta2	p≤0.05;  \beta1-\beta2	Null Hypothesis
Market	NEWDUS	<b>H4</b>	Group A: 134 (13%)	SAT →	0.223	0.038*	Rejected
				WTR	0.283	0.973	
			Group B: 870 (87%)	SIE → WTR	0.022	0.227	
	NEWSA	<b>H5</b>	Group A: 173 (17%)	SAT →	0.281	0.003*	Rejected
				WTR	0.251	0.991	
			Group B: 831 (83%)	SIE → WTR	0.012	0.315	
Interaction	NEWCASH	<b>H6</b>	Group A: 785 (88%)	SAT →	0.131	0.096	Not rejected
				WTR	0.151	0.920	
			Group B: 219 (22%)	SIE → WTR	0.010	0.365	
	NEWBILL	<b>H7</b>	Group A: 434 (43%)	SAT →	0.019	0.420	Not rejected
				WTR	0.025	0.609	
			Group B: 570 (57%)	SIE → WTR	0.017	0.211	
Contractual	MCC	<b>H8</b>	Group A: 815 (81%)	SAT →	0.061	0.714	Not rejected
				WTR	0.019	0.434	
			Group B: 189 (19%)	SIE → WTR	0.005	0.425	
	EMP2	<b>H9</b>	Group A: 855 (85%)	SAT →	0.040	0.358	Not rejected
				WTR	0.086	0.784	
			Group B: 149 (15%)	SIE → WTR	0.005	0.428	
Strategy	LOYCAT2	<b>H10</b>	Group A: 426 (42%)	SAT →	0.070	0.778	Rejected
				WTR	0.052	0.281	
			Group B: 578 (58%)	SIE → WTR	0.078	0.008*	
	NEW100	<b>H11</b>	Group A: 202 (20%)	SAT →	0.023	0.405	Not rejected
				WTR	0.055	0.272	
			Group B: 802 (80%)	SIE → WTR	0.007	0.388	
NEWKAM	<b>H12</b>	Group A: 533 (53%)	SAT →	0.087	0.164	Not rejected	
			WTR	0.085	0.836		
		Group B: 471 (47%)	SIE → WTR	0.012	0.708		

\* Significant at 95% confidence level.

Table 6 reports the results of the PLS multi-group analysis. It (Table 6) provides a breakdown of group sizes for each theoretical dimension before it reports the absolute difference in the path estimates ( $|\beta_1 - \beta_2|$ ) for each group and then report the p-value ( $p \leq 0.05$ ;  $|\beta_1 - \beta_2|$ ) associated with each observed difference in the path estimations. From this analysis it is clear that for H4, H5, and H10 the null hypotheses are rejected in favour the alternative hypothesis. Thus, for these groups one or more of the path estimates yielded statistically significant differences between groups. For the remaining six of the nine hypotheses that dealt with group differences the null hypothesis could not be rejected on the basis of this analysis. In sum therefore we observed mixed results. For some of the empirically derived groups certain differences in the relationships between constructs could be observed, but not for others. The discussion to follow we consider these results in more detail.

## Discussion

Based on the results of the path modeling the general notion that business-to-business relationships can be strengthened if customers have positive interaction experiences certainly seems to hold. To IMP researchers, at least, this is known and therefore our results are consistent with various proponents of interaction (Biggemann and Buttle, 2009b; Corsaro and Cantù, 2015; Johnston et al., 2006; Ramani and Kumar, 2008; van der Valk and Wynstra, 2012). We maintain that through multiple interactions the experience of Business-to-business customers can promote willingness to recommend and serve to enhance the quality of business relationships. This relational strengthening requires some level of loyalty, and it is therefore not surprising to observe that many of the business-to-business studies employ some form of loyalty measure as a dependent variable (Anaza and Rutherford, 2014; Bardauskaite, 2014; Callarisa Fiol *et al.*, 2009, 2009; Čater and Čater, 2009). In our study, we have demonstrated that overall customer satisfaction is also positively associated with their intention to recommend. This result is unsurprising and in fact fairly consistent with the aforementioned studies in this regard.

However, we also consider if the theoretical paths holds across empirically derived customer groups the result were mixed. Interestingly, we observed differences between mining customers and construction customers. In addition, when we compared South African customers with Non-South African customers the analysis also yielded statistically significant differences. The latter, national differences, is to be expected as it remains a central tenant of the international marketing literature that country specific factors (context and cultural diversity) may drive in varying customer responses. It should also be noted that for both market segments it was the link between customer satisfaction and willingness to recommend that yielded significant differences in the estimates. This provides further support for the idea that customer segment may vary in the operation of the psychological mechanism that converts feelings of satisfaction into the willingness to recommend. Furthermore we observed a significant difference in the link from sales interaction experience to customer satisfaction between customers that were rated as “promoters” versus those rated as “detractors” or “Indifferent” according to the net promoters score (Reichheld, 2003) that the firm operates. NPS has received considerable research attention in customer service and relationship marketing literature and although much of its weaknesses has been exposed by marketing researchers it remains a practical reality as many firm in South Africa still employs this approach. Nevertheless it appears that in this case the distinction between customer groups based on NPS score may have some value for the focal firm.

As it is often the case in research the non-significant or unexpected results may yield even better insights. In the strategy dimension two more customer loyalty initiatives did not yield significant differences between groups. First we observed no differences in the path estimates for customers who are placed on the loyalty program (called NEW100 for the purposes of this study) and those customers that are not invited to participate in the program. The NEW100 program is specifically designed to promote better customer relationships that lead to higher levels of customer loyalty to ultimately reap its associated benefits in firm performance. Thus, if this differential treatment of customers does not translate in statistically significant differences in their willingness to recommend the focal firm, it may well establish grounds to challenge the usefulness of the loyalty program. A similar argument can be constructed for customers who are treated as “Key Accounts”. The results suggest that key account

customers exhibits no differences in the path estimates compared to customers that are not considered key accounts. Again this result asks questions of the usefulness of the key account regime in the focal firm.

Furthermore no differences were observed for customers holding the MCC and EMP2 (fictitious names used to protect the identity of the focal firm) contracts. MCC contracts are for those customers which are subsidiaries of larger firms – often multinational corporations. Thus because of network advantages that these customers have and the governance requirements of their ultimate owners the focal firm establishes contracts with the subsidiary owners to ensure the sustainability and strategic orientation of the relationship. It can therefore be expected that because of the importance of the MCC contract, these customers will be treated with great care by the focal firm, and therefore the path estimates may differ from firms that do not have these corporate connections. The fact that no such differences was observed, raise questions about the focal firm's ability to isolate these network enabling actors and ensure that are looked after very well. Similarly with the EMP2 contracts the focal firm agrees with certain clients to perform certain equipment management function on behalf of clients. The lack of observed differences in the path estimates between EMP2 and non-EMP2 customers may suggest that the advantages of the EMP2 contracts do little to contribute to customer loyalty.

Finally we observed no differences in the path estimates between cash and credit customers as well as between sales order customers and collection customers. Arguable the provision of credit terms is often seen as a reciprocal investment (Palmatier et al., 2007) to facilitate easier interaction and strengthen business relationships. The absence of a differential between credit and cash customer leads one to ask if perhaps the offering of terms is a useful strategy for enhancing willingness to recommend. It would be reasonable to expect that customers that enjoy the benefits of payment terms will express their gratitude by recommending the firm. It is appear, based on the results of our study, that such an assumption might be ambitious.

The current study leaves the researcher with more questions than answers, but is also suffers from a number of key limitations. Key among this is the focal firm orientation of the study that is aimed at a specific firm in a specific industry. The focal firm design does not allow any generalization on the basis of these finding and nor would it be appropriate to offer managerial recommendations based on such a narrow interrogation. Also, the empirical design bring some limitations as data was collected at a specific three month period and the variance in interactions during this period could not be fully accounted for. Related to this is the limitations placed on the sophistication of the theoretical model. Clearly more parsimonious models would assist in gaining deeper insight. The key contribution of the study is that it points at potential sources of heterogeneity that drives variance in casual modeling of customer loyalty relationships. As researchers we often (because of the limitations of our research apparatus) generalize on the drivers of loyalty measures, based on what is primarily a linearization of a complex business world and we forget that the real world operated with far more sophistication. Hopefully our study promotes the need to pause for a moment.

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