

## **BUSINESS-TO-BUSINESS INTERACTION EXPERIENCE AND ORDER ROUTINE PERFORMANCE: EXPLORING HETEROGENEITY IN LOYALTY EFFECTS.**

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### **Abstract**

In the business-to-business customer experience literature, it is suggested that it is not so much the relationship or the way that customers are managed that differentiates, but rather it is the experience developed through the relationship that makes the difference. In addition, customer experiences are said to be constructed from consequential interaction episodes. To date, the business-to-business literature avoids an explicit consideration of interaction experience and its association with customer loyalty. Our paper specifically considers the relationship between Order Routine Performance, Overall Customer Experience, Interaction Experience, and an attitudinal measure of customer loyalty. We collected data from 1189 customers of a large multinational firm in the mining and construction industry, and use path analysis and multi-group SEM to test the theoretical model. We demonstrate significant positive relationships between interaction and customer experience, and also report a lack of group differences that lead us to question the usefulness of various customer programmes in the focal firm. We contribute to the void in the business-to-business literature regarding an interaction's association with loyalty – by considering the important role of interaction experience and order routine performance in building customer experiences that drive loyalty.

## INTRODUCTION

Customer experience research draws on the evolution of services' marketing, relationship marketing and the recent advances in experiential marketing (Klaus and Maklan, 2013 and 2012; Lemke, Clark and Wilson, 2011; Palmer, 2010; Verhoef, Lemon, Parasuraman, Roggeveen, Tsiros, and Schlesinger *et al.*, 2009). Creating and managing customer experiences rose to be a key area for many firms, and the topic of customer experience has attracted the attention of many researchers (Grønholdt Martensen, Jørgensen, and Jensen, 2015). Some researchers, like Sharma and Chaubey (2014:18), even suggest that "*customer experience has emerged as the single most important aspect in achieving success for companies across all industries*". These observations are, seemingly, not without merit. For example, Grønholdt *et al.* (2015) showed that customer experience is positively associated with financial performance and that high performing firms differentiate significantly from low performing companies in how they master customer experience management (CEM). Biedenbach and Marell (2010) also indicate that customer experience has a positive effect on the four dimensions of brand equity in a business-to-business (B2B) context. In a service context, Bolton, Lemon and Bramlett (2006) demonstrate that companies that have even a limited number of favourable experiences for a given service contract, are more likely to renew that service contract. Similarly, Henry and Greenhalgh (2005) argue that the value of customer experiences is an important tool to encourage collaboration between marketing, product management, product development, and operational people. More specifically, Lemke *et al.* (2011) demonstrated that in a B2B context, customers place a significantly greater emphasis on practices that focus on understanding and delivering value-in-use. Thus, the field of customer experience does not lack evidence demonstrating its importance for business success.

According to Klaus and Maklan (2013:1), the "*increasingly settled view of 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. However, the interaction is not necessarily consistent or predictable. For example, Van der Valk and Wynstra (2012) demonstrated that for a technically homogenous service, fundamental differences in required interaction arise as a result of different usage situations. These considerations provide the impetus for the current study to consider the effect of interaction on customer experience – and ultimately on customers' intention to stay in the relationship.

In the following section we construct a model, based on the literature, to interrogate the relationship between interaction and customer experience. Our approach is purely explorative, and at best it offers a sneak preview of what may lie at the deeper end of such an enquiry. The literature review is followed by a description of the research methodology. Next, the results section reports on the hypotheses used to consider the association between selected variables which are particular to the context of the study. We then conclude with some practical implications and directions for future research.

## BACKGROUND

Customer Experience Management (CEM) entails a process of strategically managing the entire experience of the customer (Sumathisri, Veerakumar and Prabhakaran, 2012) across various interactions with the seller and/or its offering – and it is therefore often also referred to as Total Customer Experience Management (TCEM) (Drotskie, 2011; Drotskie and Herbst, 2010). Irrespective of whether CEM or TCEM is used, the operational definitions show that the deliberate management and design of customer experiences is seen as a basis for differentiating the firm from competitors and achieving competitive advantage (Chang and Horng, 2010). The CEM concept benefits from various conceptual studies – and this has advanced some of the definitional challenges. Key among these (and seemingly the most cited) are the definitions offered by Grewal, Levy, and Kumar (2009), Grønholdt *et al.* (2015), Lemke *et al.* (2011), Palmer (2010), Klaus and Maklan (2012), and Verhoef *et al.* (2009). As with Sumathisri *et al.* (2012), Grewal *et al.* (2009) also posit that CEM is a business strategy designed to manage the customer experience. It represents a strategy that should result in value exchanges between sellers and buyers. More fundamentally, it is Verhoef *et al.* (2009) that submits that customer experience – as a construct – is holistic in nature and involves the customer's cognitive, affective, emotional, social and physical responses to the seller. The definition of Verhoef *et al.* (2009) builds on two important notions intrinsic to customer experience. First, it acknowledges that customer experience originates from a set of interactions between a customer and a product, a company, or part of its organisation, and which provoke a reaction (Gentile, Spiller and Noci, 2007). Second, based on Meyer and Schwager (2007), customer experience is considered internal and subjective responses customers have to any direct or indirect contact with a firm. Thus, the interaction is not limited to only the direct contacts such as purchasing activity, but it also includes unplanned (even informal) contact with buyer/seller representatives and other forms of communication. In summary then, we can say that experience is the 'take-away' impression or perception created during the process of learning about, acquiring, using, maintaining, and (sometimes) disposing of a product or service (Chang and Horng, 2010). Klaus and Maklan (2012) integrate the positions of Verhoef *et al.* (2009) and Lemke *et al.* (2011) – to conclude that customer experience is the customer's cognitive and affective assessment of all direct and indirect encounters with the firm relating to their purchasing behaviour. Due to its inclusivity, the definition of customer experience by Klaus and Maklan (2012) is adopted for the current study, while the notion of a strategy to deliberately manage and design the total customer experience is adopted for the notion of Customer Experience Management (Drotskie, 2011).

The diverse approaches to define customer experience also yielded many conceptualisations. Some of these build on simple concrete structures employing Institutional Theory and even Signalling Theory, while others concentrate on the underlying dimensions of human behaviour and use theories like Social Exchange Theory to explain the phenomena. Yet others integrate approaches across this spectrum. For example, Puccinelli, Goodstein, Grewal, Raghubir, and Stewart (2009) focus on seven consumer behaviour research domains that influence the customer experience (goals, schemas and information processing; memory; involvement; attitudes; affect; atmospherics; and consumer attributions and choices). Notable conceptual works (summarised in Table 1, below) are offered by Hollyoake (2009), Klaus and Maklan (2013), Lemke *et al.* (2011), Palmer (2010), and Verhoef *et al.* (2009).

**TABLE 1**  
**CONCEPTUALISATIONS OF CUSTOMER EXPERIENCE IN A B2B CONTEXT**

Source	General Approach/Position	Main Dimensions
Hollyoake (2009)	Bonded Customer Experience CE based on the notion of joint working and co-creation. CE is enhanced by formalised strategic management of relationships. 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.	<p><i>Drivers:</i></p> <ul style="list-style-type: none"> <li>• Trust</li> <li>• Integrity</li> <li>• Communication</li> <li>• Interdependence</li> </ul>
Verhoef <i>et al.</i> (2009)	These authors note the need to depart from focussing on a limited set of elements under the control of the seller – to a broader understanding of the multiple factors both within and outside the seller’s control, that impact the customer’s experience. They focus on a conceptualisation of the customer experience that captures cognitive evaluations (i.e. functional values), affective responses (as have been typically studied), and social and physical components.	<p><i>Antecedents:</i></p> <ul style="list-style-type: none"> <li>• Social environment</li> <li>• Service interface</li> <li>• Atmosphere</li> <li>• Assortment</li> <li>• Price</li> <li>• Customers’ experience in other channels</li> <li>• The brand</li> <li>• Past customer experiences</li> </ul> <p><i>Moderators:</i></p> <ul style="list-style-type: none"> <li>• Situational</li> <li>• Customer characteristics</li> </ul>
Palmer (2010)	By incorporating emotions and perceptual distortion over time, customer experience overcomes many problems associated with static, partial measures of service quality. The starting point for a framework is provided by the raw stimuli that make up a service encounter. CE is interaction with different elements of a context created by the service provider (Gupta and Vajic, 2000). Three higher-order constructs which analyse consumption and evaluation from three overlapping perspectives, are: quality, relationships, and brands.	<p><i>Constructs are:</i></p> <ul style="list-style-type: none"> <li>• Tangible and process quality</li> <li>• Brand relationships</li> <li>• Interpersonal relationships</li> <li>• Sequencing of cues and relationships</li> <li>• Effects of emotions on encoding</li> <li>• Perceptual distortion over time</li> <li>• Attitude</li> </ul>
Lemke <i>et al.</i> (2011)	CE quality is judged with respect to its contribution to value-in-use. Thus, value-in-use mediates between experience quality and relationship outcomes. Experience quality includes evaluations – not just of the firm’s products and services, but also of peer-to-peer and complementary supplier encounters. In assessing experience quality in B2B contexts, customers place greater emphasis on firm practices that focus on understanding and delivering value-in-use.	<p><i>Antecedents:</i></p> <ul style="list-style-type: none"> <li>• Communication Encounter</li> <li>• Service Encounter</li> <li>• Usage Encounter</li> </ul> <p>Experience Context (Moderator)                      Value-in-use (dependent)                      Relationship Outcomes (dependent)</p>
Klaus and Maklan (2013)	Core tenants of CE include: 1. It is assessed as an overall perception by customers and not as a gap to expectations. 2. Customers’ assessment is based on overall value-in-use and not just a summation of performance during individual service episodes. 3. The measure of experience has a broad scope and includes emotions and peer influences. 4. Experience begins before service encounters and continues after the encounters. 5. Experience is assessed against service encounters, across all channels. 6. An ideal measure should link directly to customer behaviour and business performance.	<p><i>Antecedents:</i></p> <ul style="list-style-type: none"> <li>• Peace of mind</li> <li>• Moments-of-truth</li> <li>• Outcome focus</li> <li>• Product experience</li> </ul>

## HYPOTHESIS DEVELOPMENT

Interaction occupies a central position in the business-to-business exchange literature (Rhee, Kim and Lee, 2014; Van der Valk and Wynstra, 2014; Holma, 2012; Reid, Bolman Pullins, Plank, and Buehrer, 2004). In addition, it has been shown that customer experience originates from a set of interactions between a customer and a product, a company, or part of its organisation (Verhoef *et al.*, 2009). In support of this notion, Klaus and Maklan (2013) argued that it is widely accepted that customer experience is generated through iterative interaction episodes across multiple channels. The current study defines these interaction episode specific experiences, as the customer's cognitive and affective assessment of a direct encounter with the selling firm and labels it an Interaction Experience. This approach allows the formulation of our first hypothesis:

H<sup>1</sup>: Interaction Experience is positively associated with Overall Customer Experience.

Extant Business-to-Consumer (B2C) literature argues that unique customer experiences can be a source of differentiation that fuels competitive advantage (Brakus *et al.*, 2009; Schmitt, 1999). “*As conventional sources of differentiation are becoming increasingly limited, firms should focus on customer experience*” (Pullman and Gross, 2004:551) to differentiate themselves. Thus, creating and delivering customer experience is essential for building customer loyalty and for convincing customers to remain in a relationship with the seller (Brakus *et al.*, 2009; Frow and Payne, 2007; Lywood *et al.*, 2009; Mascarenhas *et al.*, 2006). It is therefore unsurprising that the B2B literature follows a similar notion (Bardauskaite, 2014; Callarisa Fiol, Bigne Alcañiz, Moliner Tena and García, 2009; Čater and Čater, 2009; Chandrashekar *et al.*, 2007; Ramaseshan *et al.*, 2013; Scheer *et al.*, 2010; Wang *et al.*, 2015; and Wu *et al.*, 2015). In particular, Rauyruen and Miller (2007) demonstrate that in the Australian courier services' market, all four dimensions of relationship quality influence attitudinal loyalty. Similarly, Čater and Čater (2009) not only demonstrate that satisfaction positively influences behavioural and attitudinal loyalty, but also report that attitudinal loyalty is positively affected by personal interaction. Therefore we present the next two hypotheses:

H<sup>2</sup>: Interaction Experience is positively associated with the customers' Intention-to-Stay in the relationship.

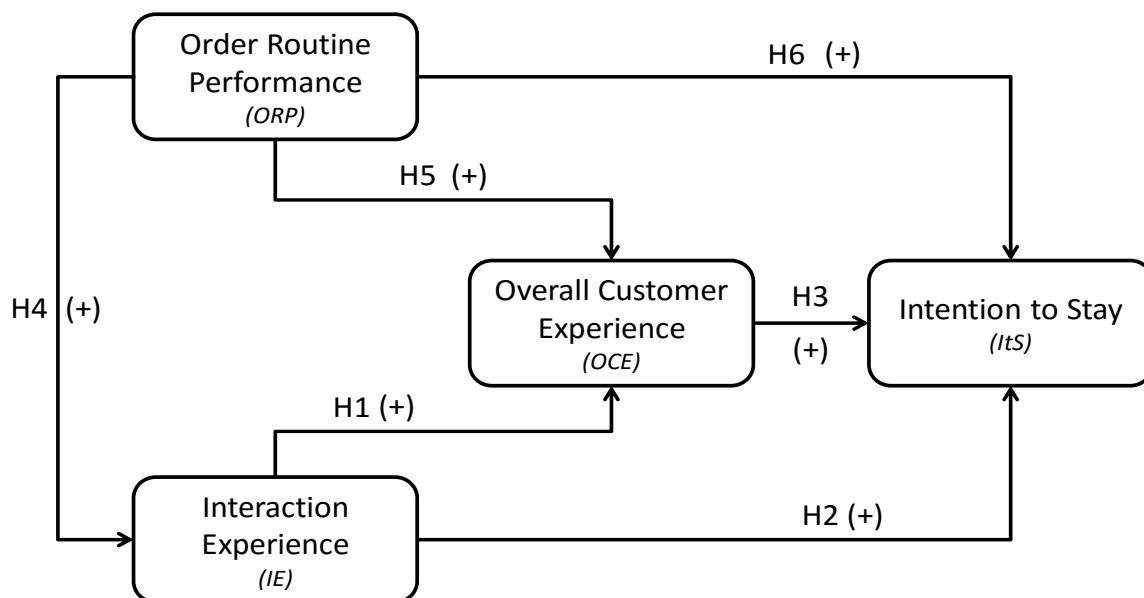
H<sup>3</sup>: Overall Customer Experience is positively associated with the customers' Intention-to-Stay in the relationship.

In the current study, order routine performance is another important aspect that can be added to variables listed in Table 1. The current study focuses specifically on the supply of parts in the earth-moving and mining industries. It is conceivable that the sheer size of the capital layout in machinery in these sectors demands asset productivity optimisation – and therefore having parts readily available is critical for achieving productivity objectives. In addition, this notion related to order routine performance is well supported in the business-to-business literature (Tiwari, Patil and Shah, 2015; Gurnani, Ramachandran, Ray and Xia, 2013; Gallego, Jin, Muriel, Zhang and Yildiz, 2007) – and has been shown to enhance customer experience. While Gallego *et al.* (2007) demonstrate that if an order is correctly executed the first time, it brings lead-time benefits related to the number of future interaction episodes, Gurnani *et al.* (2013) showed that it is theoretically optimal to source either from the more reliable (and more costly) supplier or from the riskier but cheaper supplier – depending on cost and risk parameters. Importantly, results reported by Forsland (2006) suggest that customers' expectations are not perceived as being fulfilled when suppliers over-perform, and it decreases the performance of customers. Moreover, it is also observed that suppliers tend to overestimate their performance compared with the ratings of customers (Yu and de Koster, 2010). Thus, particular to the context of the current study, we hypothesise that:

- H<sup>4</sup>: Order Routing Performance is positively associated with Interaction Experience.
- H<sup>5</sup>: Order Routing Performance is positively associated with Overall Customer Experience.
- H<sup>6</sup>: Order Routing Performance is positively associated with customers' Intention-to-Stay in the relationship.

These hypotheses allow the construction of a theoretical model (figure 1, below) that distinguishes between interaction experience (a customer measure of interaction quality) and overall customer experience (more closely associated with customer satisfaction). In addition, it also incorporates order routine performance based on its context specificity, and employs an attitudinal construct for customer loyalty by considering the customers' intention to stay in a relationship with a particular supplier.

**FIGURE 1**  
**THEORETICAL MODEL OF EMPIRICAL TESTING**



In addition to the theorised paths depicted in figure 1 (above), the current study also considered various sources of heterogeneity (Corsaro and Cantù, 2015; Eriksson and Mattsson, 2002; Mallapragada, Grewal, Mehta and Dharwadkar, 2015) that may explain variations between customer groups. Because the current study employs a focal firm design, customer groups we identified on the basis of criteria particular to the focal firm and the conventional categorisation of customers based on demographic variables, were deliberately avoided. Table 2 (below) provides an overview of these group difference, and also indicates the associated hypothesis for each group difference.

**TABLE 2**  
**CUSTOMER GROUPS FOR MULTI-GROUP ANALYSIS**

<b>Name</b>	<b>Description</b>	<b>Hypothesis 7</b>
TOP100	TOP100 is a name for an initiative in the focal firm to differentiate 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.	Because this project is purely based on sales volumes and does not seek to provide any differential treatment to customers on the basis of purchase volumes, we expect to find no significant differences (in support of the null hypothesis) between TOP100 and non-TOP100 customers. Nevertheless, we hypothesise that: $H^7_a$ : There are significant differences between the path estimates for TOP100 customers versus non-TOP100 customers.
Industry	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. Therefore, we hypothesise: $H^7_b$ : There are significant differences between the path estimates for mining versus construction customers.
Payment type	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. Hence: $H^7_c$ : There are significant differences between the path estimates for cash customers versus credit customers.
Billing type	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. We therefore hypothesise that: $H^7_d$ : 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.
Net Promoters Score Category	The focal firm uses conventional methods to calculate net promotor scores for all its customers. The firm is then able to separate “ <i>promotor</i> ” customers from “ <i>detractor</i> ” customers.	The Net Promoters 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, and we therefore hypothesise that: $H^7_e$ : There are significant differences between the path estimates for “promotor customers” versus “detractor customers.”
Management Contract (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. We hypothesise that: $H^7_f$ : There are significant differences between the path estimates for “MCC customers” versus “non-MCC customers.”
Equipment Management Project (EMP)	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. This differential allows us to hypothesise that: $H^7_g$ : There are significant differences between the path estimates for “EMP customers” versus “non-EMP customers.”

## METHOD

A focal firm approach was considered best for the current study as it specifically allowed the researchers 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 South Africa and Namibia were considered and only interactions pertaining to the purchasing of parts were included in an electronic survey (questionnaire).

The questionnaire included two sections adapted from Lemke *et al.* (2011) and Klaus and Maklan (2013). The first of these measured the interaction experience of the customers and the second focused on the overall customer experience construct. A third section focused on intention to stay in a business relationship (an attitudinal measure of customer loyalty), with the focal firm adopted from Bowen and Chen (2001) and (Gil-Saura, Frasquet-Deltoro and Cervera-Taulet, 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 these data were also made available to the researchers. The survey was opened for a three-month period during which a total of 1356 different customers responded to the survey. Closer inspection of the completed questionnaire revealed that 167 were not useable, as they were incomplete or completed in such a short time that it is unlikely that the questions were read properly, raising suspicion over the validity of the responses. This process yielded 1189 (n) responses suitable for further analysis.

Given the number of parameters to estimate in relation to number of observations and the explorative nature of the study – the objective was to use an analytical approach that is less sensitive to sample size and less strict in terms of data and model specification requirements associated with confirmatory causal inference (Hair, Hult, Ringle and Sarstedt, 2014). It was therefore decided to use a partial least squares path analysis (Ringle, Wende and Becker, 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 5. Then we conducted multi-group analysis (Schloderer, Sarstedt, and Ringle, 2014; Rigdon, Ringle, Sarstedt, and Gudergan, 2011; Völckner, Sattler, Hennig-Thurau and Ringle, 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 1) 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 3**  
**FACTOR LOADINGS**

ITEMS	Latent variables			
	Overall Customer Experience (OCE)	Intention-to-Stay (ItS)	Interaction Experience (IE)	Order Routine Performance (ORP)
OCE1	<b>0.905</b>	0.849	0.753	0.770
OCE2	<b>0.930</b>	0.775	0.629	0.674
OCE3	<b>0.930</b>	0.770	0.664	0.677
ItS1	0.756	<b>0.863</b>	0.738	0.728
ItS2	0.791	<b>0.922</b>	0.703	0.662
ItS3	0.785	<b>0.900</b>	0.654	0.673
IE1	0.602	0.639	<b>0.848</b>	0.625
IE2	0.563	0.599	<b>0.757</b>	0.573
IE3	0.585	0.639	<b>0.823</b>	0.622
IE4	0.665	0.713	<b>0.871</b>	0.637
IE5	0.684	0.693	<b>0.904</b>	0.673
IE6	0.668	0.676	<b>0.869</b>	0.636
ORP1	0.633	0.635	0.731	<b>0.791</b>
ORP2	0.580	0.570	0.470	<b>0.783</b>
ORP3	0.651	0.652	0.575	<b>0.851</b>

Table 4 (below) confirms the Fornell and Larcker (1981) criteria for discriminant validity. This is further supported by the average variance extracted (AVE) scores—which are: OCE=0.850; ItS=0.801; IE=0.717; and ORP=0.654. These values all exceed the 0.5 benchmark (Malhotra, 2007).

**TABLE 4**  
**LATENT VARIABLE CORRELATIONS, MEANS, STANDARD DEVIATION, AND FORNELL AND LARCKER CRITERIA**

Latent variables	Mean	SD	OCE	ItS	IE	ORP
Overall Customer Experience (OCE)	8.405	1.697	0.922			
Intention-to-Stay (ItS)	8.628	1.680	0.869	0.895		
Interaction Experience (IE)	8.562	1.765	0.744	0.781	0.847	
Order Routine Performance (ORP)	8.134	1.902	0.771	0.768	0.742	0.809

*Square root of AVE on diagonal*

The composite reliability and Cronbach alpha scores (Table 5, below) all exceed the 0.7 benchmark (Malhotra, 2007), and indicate that the measurement exhibits good internal consistence reliability.

**TABLE 5**  
**RELIABILITY RESULTS**

<b>Latent variables</b>	<b>Composite Reliability</b>	<b>Chronbach's Alpha</b>
Overall Customer Experience (OCE)	0.944	0.912
Intention-to-Stay (ItS)	0.924	0.876
Interaction Experience IE)	0.938	0.620
Order Routine Performance (ORP)	0.850	0.737

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 ( $\rho < 0.05$ ) before the adjustment, remained significant after the adjustment. 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 6 (below) shows that all the hypothesised paths yielded statistically significant results at the 95% confidence level. This means that the null hypothesis for H1-H6 is rejected in favour of the alternative hypothesis. Moreover, the model explained 65,9% ( $R^2 = 0.659$ ) of the variance in Overall Customer Experience, 80,2% ( $R^2=0.802$ ) in Intention-to-Stay, and 55.1% in Interaction Experience. These  $R^2$  can all be considered as a “large” effect (Cohen, 1992).

**TABLE 6**  
**PATH ANALYSIS RESULTS**

<b>Hypothesis</b>	<b>Path</b>	<b>B</b>	<b>t Statistic</b>	<b>H0</b>
H1	IE→OCE	0.382	10.602	Reject
H2	IE→ItS	0.248	7.594	Reject
H3	OCE→ItS	0.577	15.674	Reject
H4	ORP→IE	0.742	42.831	Reject
H5	ORP→OCE	0.487	13.960	Reject
H6	ORP→ItS	0.140	4.403	Reject

To test the differences between groups we employed a multi-group analysis procedure suggested by Henseler, Ringle, and Sinkovics, (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

$b^{-(1)}$  and  $b^{-(2)}$  = 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, Henseler and Ringle, 2011).

**TABLE 7**  
**RESULTS OF PLS MULTI-GROUP ANALYSIS**

H7	Descriptor	Path	$ \beta_1-\beta_2 $	$p \leq 0.05;  \beta_1-\beta_2 $
H7 <sub>a</sub>	TOP100	OCE→ItS	0.125	0.097
		IE→OCE	0.049	0.311
		IE→ItS	0.103	0.859
		ORP→OCE	0.053	0.712
		ORP→ItS	0.007	0.472
		ORP→IE	0.012	0.641
H7 <sub>b</sub>	Industry	OCE→ItS	0.030	0.606
		IE→OCE	0.032	0.636
		IE→ItS	0.005	0.518
		ORP→OCE	0.060	0.237
		ORP→ItS	0.053	0.621
		ORP→IE	0.045	0.128
H7 <sub>c</sub>	Cash vs credit	OCE→ItS	0.104	0.084
		IE→OCE	0.064	0.753
		IE→ItS	0.060	0.823
		ORP→OCE	0.103	0.134
		ORP→ItS	0.112	0.955
		ORP→IE	0.087	0.019*
H7 <sub>d</sub>	Billing type	OCE→ItS	0.061	0.231
		IE→OCE	0.076	0.799
		IE→ItS	0.031	0.661
		ORP→OCE	0.002	0.485
		ORP→ItS	0.002	0.485
		ORP→IE	0.014	0.354
H7 <sub>e</sub>	Promotors vs detractors	OCE→ItS	0.138	0.892
		IE→OCE	0.082	0.748
		IE→ItS	0.013	0.460
		ORP→OCE	0.043	0.366
		ORP→ItS	0.080	0.203
		ORP→IE	0.044	0.801
H7 <sub>f</sub>	Holding Company Contract	OCE→ItS	0.024	0.614
		IE→OCE	0.145	0.100
		IE→ItS	0.013	0.433
		ORP→OCE	0.098	0.775
		ORP→ItS	0.036	0.287
		ORP→IE	0.050	0.833
H6 <sub>g</sub>	Equipment Management Contract	OCE→ItS	0.021	0.407
		IE→OCE	0.000	0.505
		IE→ItS	0.034	0.353
		ORP→OCE	0.064	0.183
		ORP→ItS	0.051	0.742
		ORP→IE	0.009	0.402

\* Significant at the  $p \leq 0.05$

From Table 7 (above) it is clear that for hypotheses H7<sub>a</sub>, H7<sub>b</sub>, H7<sub>d</sub>, H7<sub>e</sub>, H7<sub>f</sub> and H7<sub>g</sub>, the null hypothesis could not be rejected. Thus, there is no support for the alternative hypothesis. In the case

of  $H7_c$ , a single path (ORP $\rightarrow$ IE) exhibits a significant difference between cash and credit customers at the  $p < 0.05$  level. Hence, there appears to be a difference between cash and credit customers in terms of how their judgement of Order Routine Performance influences their assessment of the interaction with the focal firm.

## DISCUSSION

Customer experience receives considerable attention from both practitioners and scientists. The notion that business-to-business relationships can be strengthened if customers have positive interaction experiences is supported by our results. 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; Čater and Čater, 2009). In our study, we have demonstrated that overall customer experience is positively associated with their intention to stay. This result is unsurprising and in fact fairly consistent with the aforementioned studies in this regard. However, we also observed that for all of the multi-group comparisons, the null hypothesis (no difference) could not be rejected for the relationship between Overall Customer Experience and Intention-to-Stay. The concern here is that four of the seven group differences tested actually consist of some programme/initiative on the part of the focal firm to ensure that a certain group of customers receive special attention or perhaps preferential treatment. It is conceivable that these groups should show differences as an effect of the various customer programmes. The question begs the answer: Does the observation of no significant differences between these groups mean that the customer programmes fail to impact? More research is needed to answer this.

We also show that customers' experience of the interaction they have had with the focal firm is significantly positively associated with their Overall Customer Experience. This appears to be consistent with the literature (Bemelmans, Voordijk, Vos, and Dewulf, 2015; Rhee *et al.*, 2014; Athanasopoulou, 2009; Bolton *et al.*, 2006; Reid *et al.*, 2004; Medjahed, Benatallah, Bouguettaya, Ngu and Elmagarmid, 2003; Brennan and Turnbull, 2000). Importantly, the distinction between Interaction Experience and Overall Customer Experience is useful as these aspects are conceptually close and some level of multicollinearity could have been expected. Although no such problem was experienced in our study, we believe there is in fact room to improve the distinctiveness of these concepts. In addition, we also observed that Interaction Experience is positively related to the customers' intention to stay. IMP literature, in particular (Schiele and Vos, 2015; Čater and Čater, 2009; Hollyoake, 2009; Brennan and Turnbull, 2000), places significant emphasis on interaction and our finding here is to be expected. However, Ramani and Kumar (2008) reported that the commonly held view that customer-based relational performance is related to customer-based profit performance, is not supported. However, both customer-based relational performance and customer-based profit performance affect aggregate business-level performance positively. This is while Palmatier *et al.* (2007) showed that trust in the salesperson and exchange inefficiency both mediate the effect of relationship marketing on seller financial outcomes. Furthermore, the same lack of differences between groups is evident for the interaction experience and again one needs to ponder why this is the case.

In the parts for mining and construction equipment the performance of the ordering system is a mission critical aspect of the business. In such an industry, large capital investments require machines to function at optimal productivity and therefore the performance of the parts ordering process is very important. In the current study we demonstrated that Order Routine Performance is significantly positively associated with Interaction Experience, Overall Customer Experience and the customer's intention to remain in the relationship with the supplier. Although this finding aligns well with the literature (Athanasopoulou, 2009; Bildsten, 2014; Brandmeier and Rupp, 2010), a deconstructed consideration of order routine performance may well reveal better insights. This can imply carefully unpacking of the interactions associated with each order routine and then testing their associations

with customer experience.

## LIMITATIONS OF THE STUDY

The current study is limited by way of its design as a semi-longitudinal approach that focusses on a single large multinational corporation. A cross-sectional research design may yield higher levels of variance and more appropriate results. In addition, the study is limited to emerging markets which have shown limited growth during the time of data collection. Thus, it will be ambitious to extrapolate these findings to developed markets with different competitive dynamics. Finally, our study did not interrogate what may mediate or moderate the relationships in the theoretical model. Hence, there is a need to construct a more parsimonious model to gain a more complete understanding of how customer experience influences business-to-business relationships.

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