

FACTORS INFLUENCING BUYER-SUPPLIER COMMITMENT AND COMPETITIVE PERFORMANCE AMONG SMALL AND MEDIUM ENTERPRISES IN SOUTHERN GAUTENG

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-ABSTRACT-

The significance of the small and medium enterprise (SME) sector to the growth and development of the South African economy and the general emancipation of her citizens has come to the forefront of the South African Government's economic agenda. Hence, the continued success of the economy, to a greater extent, is dependent on the success of the SME sector. Guided by the theoretical lens of the social exchange theory (SET), this study examines the influence of communication, product quality, flexibility and buyer-supplier commitments on SMEs competitive performance in southern Gauteng. Using a convenience sampling technique, this study quantitatively analysed the 396 returned questionnaires. Data analysis was conducted using the statistical package for social sciences (SPSS Amos 25.0) for the confirmatory factor analysis and the structural equation modelling (SEM) respectively. The analysis revealed that communication, product quality and flexibility are important variables in predicting buyer-supplier commitment and that the latter is significant in a firm's effort towards achieving competitive performance. SMEs operational strategies should incorporate flexibility, which is fundamental to firms achieving competitive performance and overcoming market unpredictability. It is recommended that SMEs exhibit greater commitment to building stronger ties with key partners in their given industry.

Keywords: Communication; Product quality; Flexibility; Buyer-supplier Commitment and SMEs Competitive performance

JEL Classification: L1, M15

1. INTRODUCTION

Studies on buyer-supplier relationship management in small and medium enterprises (SMEs) have attracted several authors, such as Omoruyi and Dhurup (2016), and Mafini and Loury-Okoumba (2016). These authors note that for SMEs to improve their business performance significantly, their attention should be directed towards commitment, trust and cooperation. Olawale and Garwe (2010) argue that government investments in SMEs in South Africa have not yielded their desired goal of 5 percent growth rate from 2004 – 2014 and, as such, SMEs have failed to promote economic growth because most were established as a last option and not first priority business. This shows the need for commitment and relationship management. According to the trust-commitment theorists (Morgan & Hunt 1994:20), “a successful relationship marketing requires relationship commitment and trust”. Tungjitjarurn, Suthiwartnarueput and Pornchaiwiseskul (2012:184) observe that “buyer-supplier relationship and transaction-specific investments are key elements of buyer-supplier commitment”. This study is justified by the need to offer a deep knowledge of the factors that positively and significantly influence buyer-supplier commitment among SMEs in South Africa and to enable them to achieve higher levels of competitive performance.

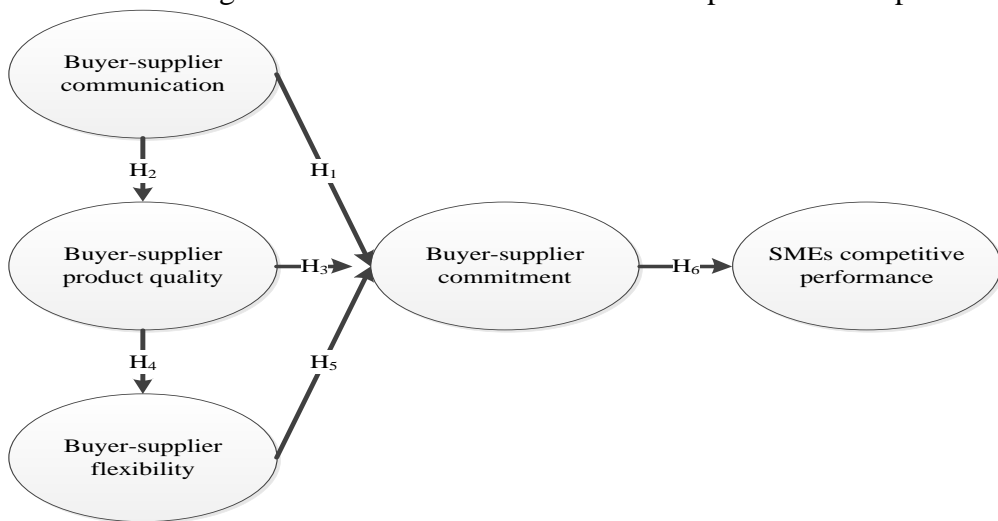


Figure 1: Research conceptual framework

Source: Own source

This study's research conceptual framework is developed based on a detailed literature review. From the conceptualised framework shown above, buyer-supplier communication, product quality and flexibility form the independent variables which the researcher hypothesised as having a positive and significant influence on buyer-supplier commitment (mediating variable). In the same manner, SMEs competitive performance (outcome variable) is dependent on buyer-supplier commitment.

2. LITERATURE REVIEW

2.1 Social exchange theory (SET)

Social exchange theory (SET), which emanated from the field of anthropology that covers the disciplines of sociology, social psychology, philosophy and economics, has received considerable attention in the study of inter-firm partnerships and buyer-supplier relationships (Chao, Yu, Cheng, & Chuang 2013; Cropanzano, Anthony, Daniels & Hall 2017). SET notes that SMEs can achieve competitive performance through commitment and reciprocated exchange. Yenyurt, Henke and Yalcinkaya (2014) believe that rewards and benefits are the basis for interaction among partners. Hence, the presence of high exchange cost discourages engagement, while high benefits will encourage exchange among partners (Harness, Ranaweera, Karjaluoto & Jayawardhena 2018). The hallmark of SET is that the buyers-suppliers show stronger commitment to create and sustain good cooperative relationships through reciprocated exchanges that benefit partners (Yenyurt, *et al.* 2014). In this regard, Krause and Ellram (2014) contend that the premise of SETs assumption is that the buyers-suppliers can avoid opportunistic behaviour through communication, commitment and trust.

2.2 Communication, product quality and buyer-supplier commitment

It is stated that communication built on open and honest sharing of information is strategic in fostering efficient and effective buyer-supplier collaborative relationships (Yenyurt *et al.* 2014). The consulted literature indicates that partners' willingness to commit to a given relationship is born out of trust, established over a period of time (Birasnav, Mittal & Dalpati 2019). This is made possible through the establishment of good communication channels that allow partners to deliberate on various issues that may enhance the partnership engagement (Clauß 2012). Kaynak and Sert (2012) note that the establishment of good communication channels in the buyer-supplier relationship will invariably help in bridging the gap in partners' opportunistic behaviour, improve satisfaction and long-term relationships. The prospect for a long-term relationship powered through partners'

deliberations may well signal the link between communication and commitment in exchange relationships. Nevertheless, commitment is seen as the concerted effort of partners to ensure the relationship endures into the future (Clauß 2012).

However, Espinosa, Nan and Carmel (2015) argue that in an exchange interaction, higher levels of convergence communication can have a significant influence on higher task-product quality. Park, Lee and Lee (2014) note that in the service industries, communication frequency is significant for inspiring functional service quality by promoting trust and confidence within the system. In line with the views shared above, this study hypothesises that:

H1: Buyer-supplier communication has a positive and significant influence on buyer-supplier commitment.

H2: Buyer-supplier communication has a positive and significant influence on buyer-supplier product quality.

2.3 Product quality and buyer-supplier commitment

Product quality is significant in helping SMEs to achieve long-term competitive advantage (Farhikhteh, Kazemi, Shahin & Shafiee 2020). It may be the basis for collaborating partners to achieve satisfaction as their relationship develops (Yuen & Chen 2010). The fact that customers who are satisfied with a given product quality talk to others and refer them to the particular product after usage may well suggest their commitment to the product (Yuen & Chen 2010). However, it is stated that partners who are satisfied with product quality will most likely exert efforts toward maintaining the exchange relationship by continuing to have business deals with the exchange partner (Peng-Chan, Chun-Ling, Wang-Ching & Wei-Ching 2015). This development in the buyer-supplier exchange could well portray partners' commitment and signal the link between product quality and commitment. Based on this reasoning, this study hypothesises that:

H3: Buyer-supplier product quality has a positive and significant influence on buyer-supplier commitment.

H4: Buyer-supplier product quality has a positive and significant influence on buyer-supplier flexibility.

2.4 Flexibility and buyer-supplier commitment

Given the need for partners to achieve continuing business success in the light of the present business and customers' demand dynamics, the focus on flexibility for SMEs has become imperative (Sabegh, Caliskan, Ozturkoglu & Cetiner 2019). Since flexibility offers SME partners the privilege to respond quickly to their dynamic demands, such as quick delivery, product range, quantity/volume, quality products and services, its application or operationalisation in the SME sector may well require considerable commitment by the cooperating partners. In the consulted literature, it is noted that for a supplier to achieve quantity flexibility in a buyer's potential order, the supplier has to maintain extra amounts of the inventory prior to the buyer placing a formal order (Chung *et al.* 2014; Amoako-Gyampaha, Boakye, Adaku & Famiyeh 2019; Heydari, Govindan, Nasab, & Taleizadeh 2020). This gesture of keeping extra inventory, otherwise called buffer stock, by the supplier and the buyer reciprocating the gesture by placing a formal order, may well be seen as buyer-supplier commitment in the exchange relationship. Additionally, for the SME supplier to achieve the product mix flexibility required by the buyer, the supplier has to show greater commitment and effort to produce those goods and services in a cost-efficient manner (Po-Young, Kuo-Hsiung & Hsu-Feng 2011). This study thus hypothesises that:

H5: Buyer-supplier flexibility has a positive and significant influence on buyer-supplier commitment.

2.5 Buyer-supplier commitment and SMEs competitive performance

The relationship management literature emphasises that SMEs buyer-supplier commitment can be enabled through buyer-supplier satisfaction and trust (Hur, Ahn & Kim 2011; Varela, Svensson, & Mpinganjira 2019; Bianchi & Saleh 2020). When SME buyers and suppliers show levels of satisfaction in the relationship, trust in the exchange grows as the partners identify themselves better with the goals enshrined in the exchange, which leads to partners' positive performance (Yoon & Moon 2019). Importantly, the SMEs buyer-supplier may engage in long-term relationship commitment because of the prospect of achieving future benefits or competitive performance (Mafini & Loury-Okoumba 2016). Additionally, the continuance commitment principle encourages partners to make asset-specific investments (Yoon & Moon 2019). This is possible in a relationship that is living up to its billing by delivering the required performance benefits the SMEs buyers and suppliers deserve (Ucanok & Karabat 2013). This study hypothesises that:

H6: Buyer-supplier commitment has a positive and significant influence on SMEs competitive performance.

3. RESEARCH DESIGN, DATA ANALYSIS AND RESULTS

Based on a cross-sectional design, the target population were owners, managers and senior employees of the SMEs in Vanderbijlpark, Vereeniging and Meyerton. The choice of this target population was based on their knowledge of internal operations and relationships with other stakeholders (partners) of the business. The non-probability sampling method enables the convenient selection of respondents suitable for this study who are also available and easy to access (Bernard 2013:163). Five hundred (500) questionnaires were conveniently distributed and 450 was utilised for this study. The scales for this study were measured on a five-point Likert scale rating, wherein respondents were asked to express their agreement or disagreement with the questions covering the study variables from a list of 1 = strongly disagree, 2 = disagree, 3 = slightly agree, 4 = agree and 5 = strongly agree.

The majority of the respondents indicated that they have been in business for two to four years (n=175; 44.19%) with an annual sales of less than R1 million (n=197; 49.8%) and physical assets of less than R4 million (n=214; 54.04%) respectively. However, many of the SMEs had fewer than 50 employees (n= 279; 70.5%). The majority of the SME owners (n=121; 30.6%) and managers (n=116; 29.03%) were situated within the wholesale and retail industry (n=119, 30.1%), having a national diploma as their highest academic qualification (n=142; 35.9%).

Table 1: Results of the reliability and item statistics

Item	Descriptive statistics		Cronbach's test		AVE	CR	Factor loading	MSV < AVE
	Mean	Std. deviation	Item-total	α Value				
Communication								
BSC ₋₁	4.08	0.927	0.682	0.815	0,533	0,819	0.801	0.452
BSC ₋₂	4.05	0.877	0.636				0.745	
BSC ₋₃	4.08	0.806	0.691				0.760	
BSC ₋₄	4.03	0.922	0.526				0.598	
Product quality								
BPQ ₋₁	4.02	0.961	0.666	0.839	0.537	0.822	0.660	0.445
BPQ ₋₂	4.08	0.829	0.766				0.754	
BPQ ₋₃	4.10	0.835	0.675				0.799	
BPQ ₋₄	4.21	0.787	0.584				0.712	
Flexibility								
BSF ₋₁	3.88	1.026	0.643	0.845	0.588	0.850	0.763	0.425
BSF ₋₂	4.02	0.914	0.782				0.853	

Item	Descriptive statistics		Cronbach's test		AVE	CR	Factor loading	MSV < AVE
	Mean	Std. deviation	Item-total	α Value				
BSF ₋₃	4.02	0.897	0.697				0.761	
BSF ₋₄	4.04	0.835	0.605				0.680	
Commitment								
COM ₋₁	4.01	0.910	0.686	0.771	0.552	0.784	0.847	0.452
COM ₋₂	4.10	0.858	0.635				0.757	
COM ₋₅	4.15	0.815	0.512				0.605	
Competitive performance								
SCP ₋₁	4.00	0.967	0.718	0.850	0.666	0.856	0.831	0.428
SCP ₋₂	4.03	0.884	0.791				0.873	
SCP ₋₃	4.15	0.845	0.655				0.739	
BSC = Buyer-supplier communication; BPQ = Buyer-supplier product quality; BSF = Buyer-supplier flexibility; COM = Buyer-supplier commitment, SCP = SMEs competitive performance; C.R: Composite reliability; AVE: Average variance extracted; MSV: Maximum shared variance; * Scores: 1=Strongly disagree; 2=Disagree; 3=Slightly agree; 4=Agree; 5=Strongly agree								
Note: significance level $p < 0.001$								
Measurement CFA model fits criteria: CMIN/DF= 2.774; NFI=0.912, TLI=0.928, CFI=0.942, IFI=0.942, RMSEA=0.066								

In Table 1, the Cronbach's alpha values suggest acceptable internal reliability as they all exceeded the 0.7 threshold for higher reliability (Johnson & Christensen 2012). The values of item-total correlation also range from 0.5 to 0.8 approximately, which is above the 0.3 threshold recommended by Pallant (2007) and shows the extent to which the items are correlated with the scores. Based on Table 1, the composite reliability values (0.784 to 0.856) exhibited satisfactory reliability as they exceeded the 0.700 threshold recommended for a good reliability indicator (Kern 2011). The average variance extracted range from 0.533 to 0.666 and are accepted, hence, they achieved the minimum acceptable value (Rosenan, Abdullah, Yosof & Abdullah 2018). These reliability results indicate that the measurement items for commitment, flexibility, product quality, communication and SMEs competitive performance are consistent and, therefore, help to determine a good reliability of the hypothesis results.

3.1 Discriminant validity

To assess the discriminant validity of the study items, component correlation matrix, through principal component analysis together with the square root of average variance extracted (AVE) and the maximum shared variance (MSV) were used to examine whether the correlation among the various research components

are < 1.0 (Deepen 2007). As indicated in Table 2, the correlation values for all dormant variables are consistently < 1.0 and these values are also less than the square-root of the AVE (Garson 2016), which indicates the presence of discriminant validity and that the research instruments precisely measure what they intended to measure.

Table 2: Component correlation matrix

	Competitive performance	Communication	Product quality	Flexibility	Commitment
Competitive performance	0.816 = $\sqrt{\text{AVE}}$				
Communication	0.574= $\sqrt{\text{AVE}}$	0.730 = $\sqrt{\text{AVE}}$			
Product quality	0.617	0.650	0.733 = $\sqrt{\text{AVE}}$		
Flexibility	0.542	0.652	0.652	0.767 = $\sqrt{\text{AVE}}$	
Commitment	0.654	0.672	0.667	0.641	0.743 $\sqrt{\text{AVE}}$

BSC = Buyer-supplier communication; BPQ = Buyer-supplier product quality; BSF = Buyer-supplier flexibility; COM = Buyer-supplier commitment, SCP = SMEs competitive performance, $\sqrt{\text{AVE}}$ = Square root of average variance extracted

3.2 Conceptual model fit and structural equation model testing

The confirmatory factor analysis CFA and the structural equation modelling (SEM) were used in this research to determine the study model fit and also to understand the casual model statistical significance. AMOS version 25.0 helped the researcher to extract the relevant information regarding the model fit indices for better assessment of the construct relationships and proper conceptualisation of the research theory. From Table 3, all indicator results are within the acceptable range, thereby, signifying satisfactory model fit.

Table 3: Measures of model fit (CFA and SEM models)

Goodness of fit measures	CMIN/DF	P value	NFI	TLI	CFI	RFI	IFI	RMSEA
Recommended value	≤ 3	≤ 0.05	≥ 0.90	≥ 0.90	≥ 0.90	≥ 0.90	≥ 0.90	≤ 0.80
CFA measurement model fit	2.744	0.000	0.912	0.928	0.942	0.900	0.942	0.066
SEM measurement model	3.042	0.000	0.900	0.916	0.929	0.900	0.930	0.072

Notes: CMIN = Minimum discrepancy (chi-square); DF = Degree of freedom; NFI = Normed fit index; TLI = Tucker-Lewis index; CFI = Comparative fit index; RFI = Relative fit index; IFI = Incremental fit index and RMSEA = Root mean square error of approximation

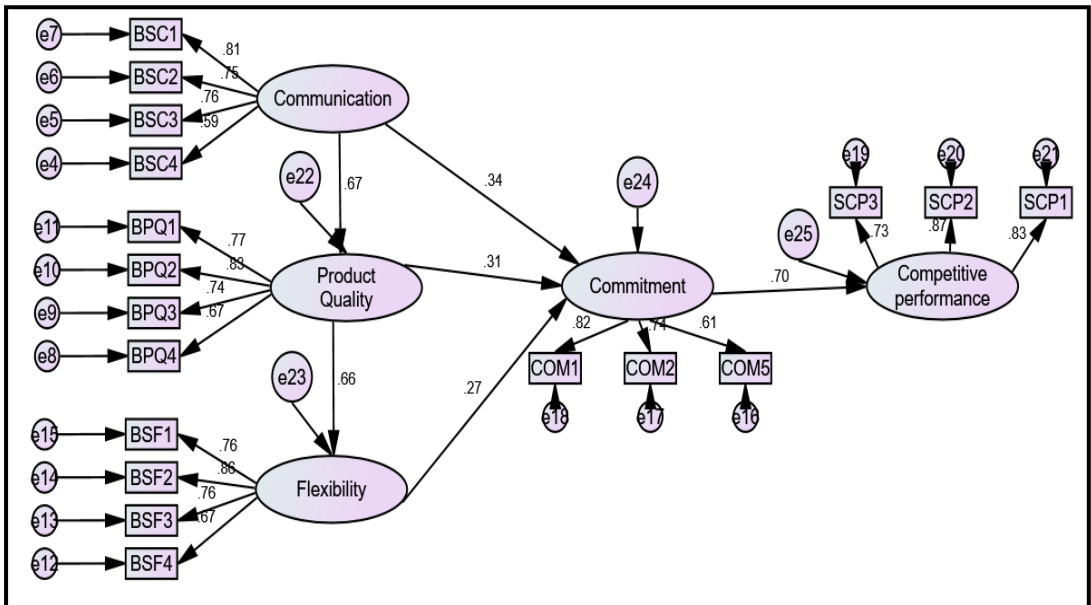
After ensuring that the data is consistent with the model, its theoretical content and the estimation values are in concord with recommended criteria, the next phase examines and deduces the statistical importance of the evaluation factors. The hypothesised relationships are discussed in Table 4 and Figure 2.

Table 4: Results of structural equation model analysis

Causal Path			Hypotheses	Path regression coefficients	S.E	C.R.	P-values	Significance levels
Com	<---	BSC	H1 (+)	.282	.073	3.861	***	Accepted at P<0.001
BPQ	<---	BSC	H2 (+)	0.735	.083	8.901	***	Accepted at P<0.001
COM	<---	BPQ	H3 (+)	0.335	.093	3.624	***	Accepted at P<0.001
BSF	<---	BPQ	H4 (+)	0.709	.073	9.754	***	Accepted at P<0.001
COM	<---	BSF	H5 (+)	0.193	.065	2.983	.003	Accepted at P<0.05
SCP	<---	COM	H6 (+)	0.890	.095	9.358	***	Accepted at P<0.001

Scores: 1=Strongly disagree; 2=Disagree; 3=Slightly agree; 4=Agree; 5=Strongly agree
 Note: ^a significance level p<0.05; ^b significance level p < 0.001; ^csignificance level p<0.01
Structural equation model fits criteria: CMIN/DF ≤ 3; NFI ≥ 0.900, RFI ≥ 0.900, TLI ≥ 0.900, CFI ≥ 0.900; IFI ≥ 0.900, RMSEA ≤ 0.08

Figure 2: Research model relationships



Scores: 1=Strongly disagree; 2=Disagree; 3=Slightly agree; 4=Agree; 5=Strongly agree
Note: a significance level p<0.05; b significance level p < 0.001; c significance level p<0.01

3.3 Testing of hypotheses

Table 4 and Figure 2 display the causal paths and the hypothesised solutions of the variables under study. Table 3 displays the P-value, standard error estimate (S.E) as well as the critical ratio (C.R). Figure 2 shows the path coefficient relationships among the study variables. The path regression coefficient table shows that the regression analysis conducted is statistically significant. This is because a regression value greater than 0.1 should be considered relevant if the critical ratio is greater than 0.96 (Safavi, Zakaria & Am 2014). In this article, the regression coefficients range from 0.193 to 0.890 and the critical ratio (CR) range from 2.983 to 9.754 and, therefore, are adjudged relevant because the relationships among the research variables are comparable and reliable. From Table 4, it is important to note that all the relationships examined showed positive and significant relationships. For example, communication on product quality was significant at (path coefficient = 0.735, $P < 0.001$), product quality on flexibility was significant at (path coefficient = 0.709, $P = 0.001$), buyer-supplier communication on commitment was significant at (path coefficient = 0.282, $P < 0.001$), product quality on commitment was significant at (path coefficient = 0.335, $P < 0.001$), flexibility on commitment was significant at (path coefficient = 0.193, $P < 0.05$), and commitment on competitive performance was significant at (path coefficient = 0.735, $P < 0.001$). Construct relationships with their statistical significance are examined next.

4. DISCUSSION OF THE RESULTS

Empirical evidence from Table 3 and Figure 2 confirmed that buyer-supplier communication had a significant positive impact on buyer-supplier commitment at a significant level of beta ($\beta = 0.282$, $p < 0.001$). This evidence may well suggest that in any given relationship, whether an inter-firm relation or intra-firm relation, the ability of the cooperating partners to communicate with one another is important for them to establish strong bonds and commitment to one another. This result was initially epitomised in the work of Agarwal & Narayana (2020), who notes that communication satisfaction within intra-firm settings is significant in enhancing partners' relationship commitment. The first hypothesis (**H1**) was, therefore, supported.

Hypothesis (**H2**), was supported with regression coefficient and significant level ($\beta = 0.735$, $p < 0.001$). The relationship existing between the two constructs exhibited stronger cohesion in comparison with that of hypothesis (**H1**). This, therefore, suggests that the flow of information across the supply chain partners or in this case

SMEs buyers and suppliers, has tremendous impact on their product quality, leading to improved profit (Shin, Park & Lee 2016).

Hypothesis (**H3**), was supported with a path regression coefficient and significant level at ($\beta = 0.335$, $p < 0.001$). Although, the path regression coefficient of this correlation showed positive improvement compared to that of **H1** above, it counts third in ranking among the weakest in the structural equation model analysis. This may well portray the difficulties buyers and suppliers in the SME sector encounter in their struggle to maintain higher product quality. However, this finding is consistent with Hall, Baker, Andrews, Hunt & Rapp (2016) that product quality is significant in helping SMEs to achieve long-term competitive advantage through improved customer loyalty. Hypothesis (**H4**) was supported through empirical evidence with path regression coefficient and correlations significant level at ($\beta = 0.709$, $p = < 0.001$). Importantly, as observed from the SEM model analysis, the correlation between BPQ and BSF exhibited higher relationships and, thereby, suggesting the impeccable bond between the two constructs. This may well mean that SMEs within the focus area of this study are aware of the role of product quality in their effort to institutionalise flexibility, which enables them to reap their presumed relationships benefits. **H5** was supported by empirical evidence, with path regression coefficient and correlations significance level at ($\beta = 0.193$, $p = < 0.05$). In comparison with other correlational values, the correlation coefficient of BSF and COM portrayed the lowest correlation in the model. However, a 5 percent significance level suggests strong support for the relationship. This result may further reveal that SMEs buyers and suppliers are not disposed to allow full operationalisation of the principles of flexibility in their individual firms. SMEs should, therefore, understand that modern business dynamics such as new product development, improved customer orders, improved delivery requirements and responsiveness to market demands, require good understanding and implementation of flexible operations to gain competitive advantage (Salema 2019). Therefore, hypothesis (**H5**) was supported and accepted.

Hypothesis (**H6**) was supported with a path coefficient value of 0.890 and $p < 0.001$, thereby indicating that the said relationship existing between the determining factors was supported and accepted. The implication of this evidence is that buyer-supplier commitment mediates significantly between buyer-supplier communications, buyer-supplier product quality and buyer-supplier flexibility to enable SMEs to achieve higher competitive performances.

The findings of this study support the research conducted by Patrucco, Moretto, Luzzini and Glas, (2020), which conceptualised a positive and significant

relationship between commitment and competitive performance. This result is also consistent with Mafini & Loury-Okoumba (2016), that buyer-supplier commitment is an enabler of SMEs competitive performance. Therefore, hypothesis (**H6**) was supported and accepted.

5. CONCLUSION AND MANAGERIAL IMPLICATION

The strength of every economy is dependent on the growth and progress of the SMEs. Therefore, for them to live up to the huge expectations the economy has placed on them requires that the SMEs understand and appreciate the importance of building and maintaining relationships across supply chain partners. The focus of this study was based on the factors influencing buyer-supplier commitment and competitive performance among SMEs. Notwithstanding the impact of these factors on buyer-supplier commitment, more studies are required to understand the extent these factors can directly impact on organisational performance. This is particularly important because organisations' performance has either a positive or negative bearing on the strength of the South African economy. Data for this study was collected from both buyers and suppliers using the same questionnaire design because the study assumed that buyers and suppliers are intertwined, since a given organisational supplier at one end can also be a buyer at the other end of the supply chain. This view may, perhaps, impact on the responses generated from the questionnaires. Further research may be needed wherein the scope of the questionnaire (buyer-supplier) can be separated and the data collection area broadened to include other provinces outside the Gauteng region of South Africa. Subsequently, the findings of the study do not reflect the opinion of all SMEs in South Africa, hence cannot be generalised to all SMEs.

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