

THE INFLUENCE OF CSR, INNOVATION AND SUPPLY CHAIN PARTNERSHIP ON FIRM COMPETITIVENESS

Elizabeth Chinomona*, Osas Omoruyi*

* Faculty of Management Sciences, Vaal University of Technology, South Africa

Abstract

Corporate social responsibility (CSR) is crucial for competitive advantage and survival of firms globally. In the pursuit of excellence, many firms have embarked on CSR programs, considering that it is not a financial burden but a strategic roadmap to increase and maintain their brand reputation, to overcome competitive pressures successfully and to efficiently and effectively lower operating cost with profit maximisation through innovation and supply chain partnership. However, in the process of becoming good players of CSR to society, innovative dimension for sustainability as well as an organisation's supply chain partnership may be essential determinants to enhance good firm business processes and performance activities. In other words, to realise CSR, firms should have a strong environmental measure and well-integrated supply chain practices closely related to their business objectives and structures. The purpose of this paper, therefore, is to examine the influence of CSR on innovation, supply chain partnership and firm competitiveness on firms around Vanderbijlpark, South Africa. Through a quantitative method using smart PLS, this study tested the relationships among the four variables, which are CSR, innovation, supply chain partnership and firm competitiveness. The results showed that there is a positive relationship between the four proposed hypotheses. H1: There is a positive relationship between CSR and innovation; H2: There is a positive relationship between CSR and supply chain partnership; H3: There is a positive relationship between innovation and firm competitiveness; H4: There is a positive relationship between supply chain partnership and firm competitiveness. The proposed study is expected to have practical and theoretical implications to policy makers and managers. In addition, it will provide added insights and new knowledge to the existing body of literature hitherto not studied extensively in South African firms.

Keywords: Corporate Social Responsibility, Innovation, Supply Chain Partnership, Firm Competitiveness, Vanderbijlpark

1. INTRODUCTION

Corporate Social Responsibility (CSR) is a common key concept used by many if not all business owners, economists, government officials and researchers alike to report that they are socially responsible or indicate that they care about the environment (Hisjam, Guritno, Supriyatno & Tandjung, 2015; Bohas & Poussing, 2016; Kim, Song & Lee, 2016; Quarshie, Salmi, & Leuschner, 2016). This is because, in order to be successful and coupled with the effort to improve both public image and operation efficiency, firms are going green with a major push towards CSR. CSR is an efficient control mechanism in any firm for realising the importance of moral practices and to avoid financial risk as well as damage to reputation in business (Shnayder, Van Rijnsoever & Hekkert 2016). Being socially responsible means firms should be more innovative in initiating an effort to eliminate pollutants, reduce carbon footprints and at the same time, maximise profit.

Therefore, given the importance of CSR, it is important to discuss its influence on firm's innovativeness and supply chain partnership. For this study, CSR is defined as "corporate activities

that proactively seek to contribute to sustainability equilibria, including the economic, environmental and social dimension of today, as well as their inter-relations within and throughout the time dimension (the short, long and longer term), while addressing the company's systems (operations and production, management and strategy, organisational system, procurement and marketing and assessment and communication) as well as with its stakeholders" (Lozano, Nummert & Ceulemans 2016).

It is believed that due to the increasing awareness coupled with pressures/expectations from firm stakeholders and shareholders as well as current and potential regulatory pressures on environmental impact, firms are intensifying their actions in favour of sustainable environment (Hisjam *et al.*, 2015). Furthermore, to be socially responsible, firms are still searching and have further increased their actions from introducing social and environmental concerns in their business operations to integrating sustainability as a priority in their overall strategic business plan (Asongu 2007).

This paper is organised as follows: First, the problem statement and objectives are clearly stated, thereafter, the literature for each of the research

constructs is reviewed and hypotheses are formulated. What follows is an account of the study's methodology as well as a discussion on findings. Finally, a presentation on the managerial implications, limitations and recommendations for future research will be provided.

2. PROBLEM STATEMENT

Few studies have focused on a detailed model showing the mediating variables of CSR such as supply chain partnership and innovation capability to firm competitiveness in Vanderbijlpark. The growth and survival of companies in Vanderbijlpark are threatened by impediments that may exist in the operations and management functional areas of the business. Lack of innovation research skills, poor CSR and weak supply chain partnerships have been identified as the one main impediments hindering the success of firms (Chimucheka & Mandipaka, 2015). South African firms are inhibited by other factors such as poor marketing skills, poor supply chain practices, lack of marketing research skills, poor analysis of the market, failure to understand and forecast future customer trends and needs and the inability to prepare marketing plans (Maloka, 2013). Lekhanya (2010) stated that the problems experienced by firm's owners in conducting a successful business are market-related issues such as marketing, locality, lack of knowledge of the market, product demand and competition, which are associated with the industry in which the enterprise operates since most of the firms fall under small and medium enterprises (SMEs). Maloka (2013) concurs that the market-related problems that affect firms include issues such as marketing locality, lack of knowledge of the market, product demand and competition, which are associated with the industry in which the enterprise operates. In addition, Lekhanya (2010) adds that the management style in small firms often means there is little or no marketing planning and many small business failures result from deficiencies in marketing, poor CSR, inadequate innovation and poor or weak supply chain partnerships. Moreover, Nickel, McHugh and McHugh (2007) together with Walsh and Anurit (2008) assert that lack of innovation and poor CSR are the major reasons for companies' failure.

Primary Objective of the Study

The main or primary objective of this study is to investigate the influence of CSR, innovation and supply chain partnership on firm competitiveness in companies around Vanderbijlpark, South Africa.

Secondary Objectives

Theoretical objectives

- To conduct a literature review on CSR
- To review literature on innovation
- To conduct a literature review on supply chain partnership
- To review literature on firm competitiveness.

Empirical objectives

- To investigate the influence of CSR on innovation

- To determine the influence of CSR on supply chain partnership
- To evaluate the influence of innovation on firm competitiveness
- To ascertain the influence of supply chain partnership on firm competitiveness.

3. LITERATURE REVIEW

Corporate Social Responsibility

Almost every firm has a CSR policy as well as strategic activities to attain CSR. CSR is concerned with the relationship between a firm, the local society in which it operates and its stakeholders (D'Amato & Room, 2009; Hsueh, 2014; Bohas & Poussing, 2016). According to the European Union Commission (2002:5), "CSR is a concept whereby firms integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis." Ordinarily, no firm, whether profit or non-profit, would incur an additional increased cost to be socially responsible without any return on investment. Hetherington (1973:37) states, "there is no reason to think that shareholders are willing to tolerate an amount of corporate non-profit activity which appreciably reduces either dividends or the market performance of the stock." Nevertheless, along with pressure from government, stakeholders and society, firms need to initiate an effort to be socially responsible. Firms soon found that being socially responsible is not only about reducing their negative impact on the environment but a strategic means to innovatively make more profit and reduce operating cost (Midttun, 2007; Cruz & Wakolbinger, 2008; Übius, Alas & Vanhala, 2009; Mattera & Baena, 2015). Thus, CSR triggers innovation and is a source of innovation.

Innovation

Innovation means tapping into the potential for new products, or changing to new products, procedures or systems to meet customer demands (Wu & Lin, 2014). O'Dwyer, Gilmore and Carson (2009) explain that innovation involves doing something new with ideas, products, service, or technology and refining these ideas to a market opportunity to meet the market demand in a new way. Gottlichova and Soukalova (2015:337) point out that innovation is perceived as introducing new methods supporting product sales, improvement in the areas of packaging, advertisement and promotion of products and services. According to Sula and Banyar (2015), innovation is used when all other possibilities of traditional vertical marketing are exhausted. Therefore, the principle of innovation requires a company or a business to constantly search for the real improvements of their products and marketing (Sula & Banyar, 2015). On the other hand, according to D'Amato and Room (2009:35), "innovation is the invention and implementation of a new management practice, process, structure and technique to the state of the art and intended to further firm's goals". For this study, innovation is the identification of strategic methods that occurred to a firm as a result of CSR initiatives. Asongu (2007), Gallego-Alvarez, Prado-Lorenzo and Garcia-

Sanchez (2011), state that, most firms', in their quest for CSR, have developed strategic innovative products and services that are beneficial to the firm's profitability.

Firm Competitiveness

It is widely believed that firms cannot do everything alone and need to strategically focus on their core-competence and seek supply chain for the efficient and effective business execution, thereby making significant contribution to the end product (Chen & Paulraj, 2004; Maheshwari, Kumar & Kumar, 2006; Kim, Kumar & Kumar, 2010; Su, Fang & Young, 2013). A firm's competitive advantage is the ability to consolidate technological advantages, innovative designs, business-wide models and production skills into competencies that allow the firm to adapt quality to changing opportunities, which is possible through access to both local and global networking (Bhaumik, Driffield & Zhou, 2016). This is due to the changing customer demands, high competitive pressure, uncertainty and rapid technological changes that hinder a firm's competitive position (Knoppen & Christiaanse, 2007; Ryu, So & Koo, 2009). For this reason, in today's business world, competition is no longer between firms, but between supply chains to enhance competitive advantage (Teipal, Garg & Sachdeva, 2013).

Supply Chain Partnership

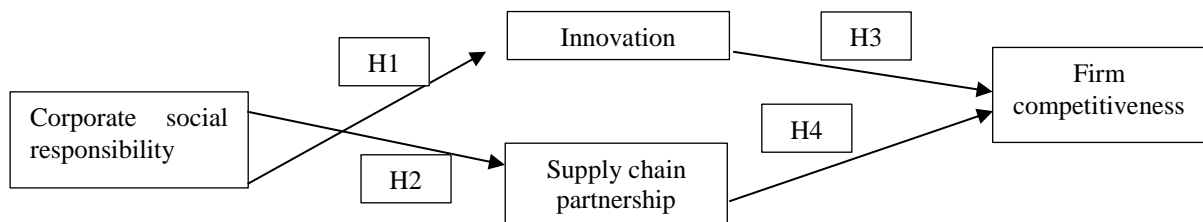
A supply chain partnership can be defined as an approach with an attitude of openness, effective communication, close collaboration and co-operation, trust, honesty, transparency, sharing and mutual benefit towards selected suppliers (CIPS, 2013). Supply chain partnership is referred to as "person-to-person or firm-to-firm joint tactics, operations and strategies that can improve supply chains. It requires firms to work together and trust each other in addressing challenges and issues that are obstacles to improvements for success" (Coyle *et*

al., 2011:505). Kim *et al.* (2010), also define supply chain partnership as a strategic alliance of participants in a supply chain to encourage joint effort and collaboration in core values based on trust, openness, shared risk and rewards to create business competitive advantage This means that firms in supply chain have more advantage in terms of utilising the intellectual capital, information in collaboration and visibility, more concentration on core competencies, as well as knowledge resource for competitive advantage (Ryu *et al.*, 2009; Su *et al.*, 2013; He, Ghobadian & Gallea, 2013). Agan, Kuzey, Acar and Acikgoz (2016), argue that most CSR initiatives by suppliers are possible through collaborative effort. Coyle, Novack, Gibson and Bardi (2011), give an example of the Smart Way Transport Partnership. With the emergence of CSR and sustainability issues, supply chain partnership gives firms the opportunity to leverage each other to perform better than they would be acting alone (Kogg & Mont, 2012). Therefore, partnership within the supply chain will quickly allow firms to improve on social responsibility initiative activities and enhance more sustainable approaches to development while strategically creating value (Ciliberti, Pontranzolfo & Scozzi, 2008). Supply chain partnership is a strategic road map for CSR, which requires individual firm commitment and action for a collaborative creation of both firm and social change (D'Amato & Room, 2009).

Conceptualised Framework and Hypotheses Formulation

Based on the literature review, the framework illustrated in Figure 1 was conceptualised. In this framework, CSR is the predictor, innovation and supply chain partnership are the mediators, whilst firm competitiveness is the outcome variable. Figure 1 illustrates the framework of the study. Hypothesised relationships between research constructs are developed thereafter.

Figure 1. Conceptual framework



Hypothesis Development

Corporate social responsibility and innovation

It is with CSR that firms try to improve their innovation (Alafeef 2015). Numerous empirical studies have found that CSR is associated closely with innovation (Gunnar & Stefansson 2009; Gunday & Ulusoy 2011; Mukhamad & Kiminami 2011). Among the studies that support the positive relationship between innovation and CSR is the one conducted by Haghhighinasab, Sattari, Ebrahimi & Roghanian (2013). The study provides extra evidence

to the previous literature that CSR has a positive effect on innovation and business performance. Hassan, Shaukat, Nawaz, and Naz's (2013) study has a strong linkage between CSR and innovation. These authors emphasised that CSR brings innovation that allow firms to be more efficient and effective in their business operation, thereby improving on sustained value-added products/services that are environmentally safe. In the light of the above, the paper posits the following:

H1: *There is a positive relationship between corporate social responsibility and innovation.*

Corporate social responsibility and supply chain partnership

To be alert in this modern and global competitive business environment, firms need an effective supply chain collaboration or partnership vast competency in all aspects of CSR (Kogg & Mont, 2012). This is because sustainable supply chains can be seen as successful mechanisms that allow the majority of firms to easily redesign sustainable products and services throughout their product life cycle (Klassen & Vereecke, 2012; Tidy, Wang & Hall, 2016). To be socially responsible, firms now seek sustainable advance materials management, implementation of new distribution model and environmental purchasing, new manufacturing techniques and technology as well as innovative packaging strategies within their supply chain (Quarshie, *et al.*, 2016). During this process, both manufacturers and suppliers are developed and trained through supplier engagement programmes (SEPs) for the purpose of CSR performance and sustainable supply chain management (Agan *et al.*, 2016). According to Cruz and Wakolbinger (2008), and Kogg and Mont (2012), the most notable changes in the way firms work with CSR issues and are socially responsible is the shift of the focus from their own operations to improving the overall performance of supply chains, customer satisfaction and loyalty. Hence, this paper hypothesises that:

H2: There is a positive relationship between corporate social responsibility and supply chain partnership.

Innovation and firm competitiveness

Scholars and business leaders alike have acknowledged the importance of innovation as a major source of competitive advantage, business success and enhanced sustainable growth (Back, Partoteeah & Nam, 2014, Gao & Chou, 2015, Kalmuk & Acar, 2015, Ross, 2016). Innovation is what makes firms outperform competitive rivals and become a leaders in the market with sustained high profit, for example Walmart is performing very well globally in terms of innovation. (Karabulut, 2015). Hartono (2015) defines innovation as generation, conversion and exploitation of new ideas that is combined with firm capability through a systematic process for producing outcome to be perceived as new that has economic values for customers and firms. Therefore, a firm's competitive performance depends on its capability to innovate and continuously develop as well as readjust products and service that promotes competitive advantages. New product innovation, new process innovation, management innovation and technological innovation have been found to have a positive influence on economic development and growth as well as firm competitive advantages (Drumea & Mirela, 2015, Walker, Chen & Aravind, 2015, Aziz & Samad, 2016, Coad, Segarra & Teruel, 2016, Diaz-Chao, Sainz-Gonzalez & Torrent-Sellens, 2016; Husain, Dayan & Di Benedetto, 2016). Innovation is a prerequisite for increased competitiveness and creating long-lasting advantages (Sener & Saridogan, 2011, Ross, 2016). In the present monopolistic environment where similar products exist across many potential sellers and buyers, firms that do not seek to invest in

innovation and maximise their competitive priority may run out of business in no time (Aziz & Samad, 2016). Competition compels firms to maximise profit. Therefore, this paper posits that:

H3: There is a positive relationship between innovation and firm competitiveness.

Supply chain partnership and firm competitiveness

Supply chain partnerships that are very strong can lead to firm competitiveness through royalty and just in time principles (JIT). This means that firms in supply chains have more advantage in terms of utilising the intellectual capital, information in collaboration and visibility, more concentration on core competencies, as well as knowledge resource for competitive advantage (Ryu *et al.*, 2009; He, Ghobadian & Gallea, 2013; Su *et al.*, 2013). Other benefits of supply chain partnership include: value added products (Mirmajlesi & Shafaei, 2016); improve market access (Wong, Lai & Bernroeder, 2015); add technological strength (Lui, Wei, Ke, Wei & Hua, 2016); enhance strategic growth (Youn, Yang, Hong & Park, 2013); enhance firm's skills (Youn *et al.*, 2013) and build financial strength (Chang, Ellinger, Kim & Franke, 2016). Therefore, to compete effectively, rapidly respond to global competitive challenges and technologies as well as enhance the effectiveness of supply chain, it is almost important for firms to work collaboratively together in a mutually beneficial relationship. Therefore,

H4: There is a positive relationship between supply chain partnership and firm competitiveness

4. RESEARCH METHODOLOGY

A quantitative cross-sectional survey design was used to describe the influence of CSR on innovation, supply chain partnership and firm competitiveness. The study population was employees working in companies based in Vanderbijlpark, South Africa. Only those who are permanent employees and have been working there for a year were included in this study population. One year was the target inclusion period; it was assumed that after a year, one generally has an idea of the company's performance and CSR. As such, the inclusion/exclusion criteria determined that all those on internship and contract employees be excluded from this study.

Measurement Instruments

Research scales were designed on the basis of previous work. Proper modifications were made in order to fit the current research context and purpose. CSR was measured using six-item scales adapted from Montiel (2008). Innovation used a four-item scale measure adapted from Karabulut (2015). Supply chain partnership used a four-item scale measure adapted from Li, Ragu-Nathan, Ragu-Nathan and Subba Rao (2006). Firm competitiveness was measured using a four-item scale, from Al-alak and Tarabieh (2011). Measurement scales were configured on a five-point Likert-type scale that was anchored by one (strongly disagree) to five (strongly agree) in order to express the degree of agreement.

Sample Description

300 questionnaires were distributed to different companies in Vanderbijlpark, South Africa. 300 were used because Smart PLS works very well with small and large data samples unlike structural equation

modelling (SEM), which works well with large data samples only. 280 questionnaires were returned of which only 250 were usable. This yielded a valid response rate of 83 percent. Descriptive statistics in Table 1 show the gender, marital status and age of higher education professional employees.

Table 1. Sample demographic characteristics

| Gender | Frequency | Percentage |
|----------------|------------|-------------|
| Male | 190 | 76% |
| Female | 60 | 24% |
| Total | 250 | 100% |
| Age | Frequency | Percentage |
| ≤30 | 110 | 44% |
| 31-60 | 100 | 40% |
| ≥ 60 | 40 | 16% |
| Total | 250 | 100% |
| Marital status | Frequency | Percentage |
| Married | 85 | 34% |
| Single | 165 | 66% |
| Total | 250 | 100% |

As indicated in Table 1, more males participated in the study. They constituted 76 percent of the total population. This study shows that females only constituted 24 percent of the total respondents. In terms of the age groups of respondents, individuals who were less than 30 years of age were the greatest number (44%) in the study, followed by those aged between 31 and 60 (40%), lastly those above 60 years are the minority (16%). Respondents who are married constituted 34 percent of the sample while those who were single constituted 66 percent of the sample.

5. DATA ANALYSIS RESULTS

Psychometric Properties of the Measurement Scale

Psychometric properties of the measurement scale are reported in Table 2, which presents the research constructs, Cronbach alpha test, composite reliability (CR), average variance extracted (AVE) and item loadings.

Table 2. Measurement accuracy assessment and descriptive statistics

| Research constructs | Descriptive statistics* | | Cronbach's test | | CR | AVE | Item Loadings |
|--|-------------------------|-------|-----------------|---------|-------|-------|---------------|
| | Mean | SD | Item-total | α Value | | | |
| Corporate social responsibility (CR) | | | | | | | |
| CR 1 | | | 0.501 | 0.749 | 0.749 | 0.602 | 0.533 |
| CR 2 | | | 0.633 | | | | 0.668 |
| CR 3 | 2.64 | 1.710 | 0.708 | | | | 0.736 |
| CR 4 | | | 0.605 | | | | 0.647 |
| CR 5 | | | 0.688 | | | | 0.720 |
| CR 6 | | | 0.606 | | | | 0.637 |
| Innovation (IN) | | | | | | | |
| IN 1 | | | 0.513 | | | | 0.659 |
| IN 2 | | | 0.764 | | | | 0.829 |
| IN 3 | 3.08 | 1.001 | 0.738 | 0.769 | 0.769 | 0.634 | 0.776 |
| IN 4 | | | 0.759 | | | | 0.827 |
| Supply chain partnership (SP) | | | | | | | |
| SP 1 | | | 0.505 | | | | 0.567 |
| SP 2 | | | 0.673 | | | | 0.727 |
| SP 3 | 3.00 | 1.325 | 0.689 | 0.658 | 0.658 | 0.602 | 0.733 |
| SP 4 | | | 0.699 | | | | 0.788 |
| Firm competitiveness (FC) | | | | | | | |
| FC 1 | | | 0.676 | | | | 0.751 |
| FC 2 | | | 0.622 | | | | 0.715 |
| FC 3 | 2.18 | 1.703 | 0.596 | 0.715 | 0.715 | 0.669 | 0.665 |
| FC 4 | | | 0.705 | | | | 0.811 |
| <i>CR=Corporate Social Responsibility; IN=Innovation; SP=Supply Chain Partnership; FC=Firm Competitiveness</i> | | | | | | | |

The lowest item-to-total loading observed was CR 1 with 0.501 and the highest was IN 2 with 0.764. The lowest factor loading observed was CR 1 with

0.533 and the highest is IN 2 with 0.829. This shows that the measurement instruments are valid. The lowest Cronbach alpha was 0.658 and the highest

was 0.769, which shows that the constructs were internally consistent or reliable and explained more than 60 percent of the variance. All composite reliability values were above the recommended minimum of 0.6 (Bagozzi & Yi, 1988), which further attests to the reliability of the measurement instrument used in the study.

Composite reliabilities (CR) and average variance extracted (AVE) for each construct were also computed using the formulae proposed by Fornell and Lacker (1981):

$$CR_{\eta} = (\sum \lambda_{yi})^2 / [(\sum \lambda_{yi})^2 + (\sum \epsilon_i)], \text{ where}$$

CR_{η} = composite reliability, $(\sum \lambda_{yi})^2$ = square of the summation of the factor loadings; $(\sum \epsilon_i)$ = summation of error variances.

$$V_{\eta} = \sum \lambda_{yi}^2 / (\sum \lambda_{yi}^2 + \sum \epsilon_i), \text{ where}$$

V_{η} = average variance extracted (AVE); $\sum \lambda_{yi}^2$ = summation of the squared of factor loadings; $\sum \epsilon_i$ = summation of error variances.

One of the methods used to ascertain the discriminant validity of the research constructs was the evaluation of whether the correlations among latent constructs were less than 0.60. These results are reported in Table 3.

Table 3. Inter-construct correlation matrix

| Variables | CR | IN | SP | FC |
|-----------|--------------|--------------|--------------|--------------|
| CR | 0.542 | | | |
| IN | 0.499 | 0.588 | | |
| SP | 0.491 | 0.564 | 0.457 | |
| FC | 0.472 | 0.499 | 0.443 | 0.501 |

CR=Corporate Social Responsibility; IN=Innovation; SP=Supply Chain Partnership; FC=Firm Competitiveness

A correlation value between constructs of less than 0.60 is recommended in the empirical literature to confirm the existence of discriminant validity (Bagozzi & Yi, 1988). As can be observed from Table 3, all the correlations were below the acceptable level of 0.60, which confirms the existence of

discriminant validity. The diagonal values in bold are the shared variances (SV) for the respective research constructs. The shared variance is expected to be greater than the correlation coefficients of the corresponding research constructs. Drawing from tables 2 and 3, the results further confirm the existence of discriminant validity. To ascertain convergent validity, the factor loadings were considered in order to assess if they were above the recommended minimum value of 0.5 (Nunnally & Bernstein, 1994). The factor loadings for scale items (Table 2) were above the recommended 0.5, which indicated that the instruments were valid and converging well on the constructs that they were expected to measure.

Path Modelling Results

After confirming the reliability and validity of the measurement instruments (reported in Table 2), the study proceeded to test the proposed hypotheses. In total, there are four hypotheses that are tested. In the path model, CR is the independent variable, IN and SP are the mediators and FC is the outcome/dependent variable. Figure 2 provides the proposed hypotheses and the respective path coefficients. The same results of the path coefficients are tabulated in Table 2 depicting the item to total correlations, average variance extracted (AVE), composite reliability (CR) and factor loadings.

Path Model Results and Factor Loadings

Figure 2 indicates the path modelling results and as well as the item loadings for the research constructs. In the figure, CR stands for Corporate Social Responsibility; IN is the acronym for innovation; SP stands for supply chain partnership and FC is the acronym for firm competitiveness.

Figure 2. Path modelling and factor loading results

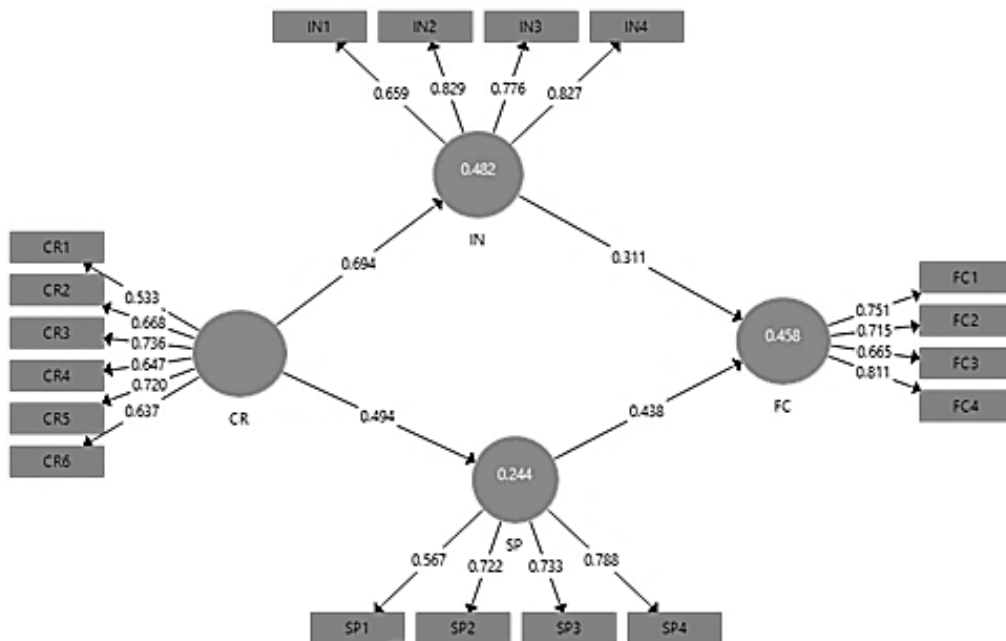


Table 4. Results of structural equation model analysis

| Path | Hypothesis | Path coefficients (β) | T-statistics | Decision on hypotheses |
|--|------------|-------------------------------|--------------|------------------------|
| Corporate social responsibility (CR) → Innovation (IN) | H1 | 0.694 ^a | 10.483 | Accept/ Significant |
| Corporate social responsibility (CR) → Supply chain partnership (SP) | H2 | 0.494 ^a | 8.906 | Accept/ Significant |
| Innovation (IN) → Firm competitiveness (FC) | H3 | 0.311 ^a | 3.100 | Accept/ Significant |
| Supply chain partnership (SP) → Firm competitiveness (FC) | H4 | 0.438 ^a | 7.989 | Accept/ Significant |

^aSignificance level $p < .10$; ^bSignificance level $p < .05$; ^cSignificance level $p < .01$.

Table 4 presents the four hypothesised relationships, path coefficients, the t-statistics and the decision criteria. The value of the t-statistic indicates whether the relationship is significant or not. A significant relationship is expected to have t-statistics above two. Drawing from the results provided in Table 4, four of the hypothesised relationships (H1, H2, H3 and H4) were statistically significant.

6. DISCUSSION OF THE RESULTS

The purpose of this paper was to examine the influence of CSR on innovation, supply chain partnership and firm competitiveness on companies in Vanderbijlpark, South Africa. CSR influences firms' financial performance, risk appetite or earnings in a positive way. The first hypothesis stated that CSR has a positive influence on innovation. In this study, this hypothesis was supported. It can be observed in Figure 2 and Table 4 that CSR exerted a positive influence ($r = 0.694$) and was statistically significant ($t = 10.483$) in predicting innovation in the companies. This result implies that CSR directly influences innovation in a positive and significant fashion. The higher the level of CSR, the higher the level of innovation at the workplaces.

The second hypothesis suggested that CSR has a positive influence on supply chain partnership. This hypothesis was supported in this study. Figure 1 and Table 4 indicate that supply chain partnership H2 was supported. CSR exerted a positive influence ($r = 0.494$) on supply chain partnership and was statistically significant ($t = 8.906$). This result denotes that CSR is positively and significantly related to supply chain partnership. Thus, higher levels of CSR will lead to higher levels of supply chain partnership.

The third hypothesis, which advanced that innovation exerts a positive influence on firm competitiveness was supported and accepted in this study. It is reported in Figure 1 and Table 4 that H3 innovation exerts a positive ($r = 0.311$) influence on firm competitiveness and that this influence is statistically significant ($t = 3.100$). This result suggests that innovation has a direct positive effect on firm competitiveness. Thus, the more effective the innovation, the greater the positive firm competitiveness.

The final hypothesis, H4, postulated that supply chain partnership exert a positive influence on firm competitiveness. In this study, this hypothesis was supported and accepted. As can be deduced from Figure 1 and Table 4, supply chain

partnership exerted a positive and significant influence ($r=0.438$; $t=7.989$) on firm competitiveness. This result depicts that supply chain partnership is associated with higher firm competitiveness.

Hypothesis one, CSR ($r = 0.694$) emerged as the highest scoring construct amongst the three factors influencing innovation. Perhaps this result could be attributed to the fact that CSR is at its peak when innovation is very effective and efficient, which makes theoretical sense. If the company has employees who are prone to innovation, it means CSR will also be high in that firm. Thus, in order to enhance high innovation, greater emphasis should be placed on CSR.

LIMITATIONS AND FUTURE RESEARCH DIRECTION

A number of limitations were observed during this research. First, the study was restricted to four factors only, namely CSR, innovation, supply chain partnership and firm competitiveness. Future research could also include other factors such as organisational citizenship behaviours and organisational politics, which can have an impact on firm competitiveness. Secondly, the results are based on a small sample of 250 respondents, which makes it difficult to generalise the results to other contexts of firms in South Africa. Future studies could make use of amplified sample sizes in order to get views that are more representative. Since this study used a quantitative approach, future studies could also use a mixed method approach so that in-depth views of employees in the firms can also be captured.

CONCLUSIONS AND MANAGERIAL IMPLICATIONS

The study validates that factors such as CSR, innovation and supply chain partnership are instrumental in stimulating firm competitiveness. The study further validates that CSR is good when innovation, supply chain partnership and firm competitiveness are good. The study has both theoretical and managerial implications. Theoretically, this study makes a noteworthy progression in marketing theory by methodically examining the interplay between CSR, innovation and supply chain partnership and firm competitiveness. In this manner, the study is an important contributor to the existing literature on this subject. The study also underwrites a new direction in the research on consumer behaviour by opening up a discussion on the importance of marketing practices in the development and

improvement of firm competitiveness in Vanderbijlpark, South Africa.

On the practical front, since all four hypotheses have a positive influence on each other, improvements in each of these three factors could stimulate higher firm competitiveness in Vanderbijlpark, South Africa. CSR can be improved by being sensitive to the environment and emphasising on going green. On innovation, the firms should aim to improve the technological aspect and employing employees who are adept in technology. Supply chain partnership could be improved by working well with all stakeholders involved in companies like suppliers and even banks. Firm competitiveness can be improved through learning the benefits of organisational citizenship behaviours and workplace spirituality. Firms in Vanderbijlpark should aim to compete with other firms globally for efficacy reasons.

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