The Mediating Role of Knowledge Sharing on Social Capital and Product Innovation among Tourism SMEs

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Abstract

**Purpose:** The aim of this study was to investigate the mediating role of knowledge sharing on social capital and product innovation among tourism SMEs in Zimbabwe.

**Design/methodology/approach:** A quantitative approach was adopted in this study and data was collected using an online survey, from owners and managers of small and medium enterprises in the tourism industry. The respondents were drawn using a simple random sampling technique from a database created and maintained by the Zimbabwe Tourism Authority of Sanganai/Hlanganani World Tourism Expo participants. Covariance-based structural equation modelling was used to analyse the data and test the hypotheses proposed.

**Findings:** The study found that both interorganisational trust and social reciprocity enhance product innovation in the tourism sector. It was also revealed that knowledge-sharing capability partially mediates the relationship between interorganisational trust and social reciprocity and product innovation.

**Research limitations/implications:** By focusing on interorganisational trust and social reciprocity, this study was limited to the relational dimension of social capital, and this offers scope for future research. More research needs to be undertaken to explore the role of interorganisational trust and social reciprocity across other dimensions of social capital other than the relational attributes. It is also necessary to conduct longitudinal studies to capture variations in time and across sectors using more robust measures.

**Originality/value:** The study expands on the existing line of scholarly work by providing a social dimension of the antecedents of product innovation. The findings suggest in the wake of resource limitation, firms in Zimbabwe may rely on interorganisational trust and social reciprocity to foster superior product innovation. In this knowledge-intensive business environment, this study also adds value by providing empirical evidence for the mediating role of
knowledge-sharing capability in the relationship between interorganisational trust and social reciprocity, and product innovation.

**Keywords:** interorganisational trust; social capital; social reciprocity; knowledge sharing; product innovation

**Introduction, Problem Investigated, and Objective of the Study**

The twenty-first century has been characterised by increased globalisation and rapid socio-economic transformations that have severely altered how business is conducted. Buccieri, Javalgi, and Cavusgil (2020) add that the integrated global economy era has also witnessed an increase in the number of small and medium enterprises (SMEs) in both developed and developing countries. As such, firms now have to contend with increased competition, volatility, uncertainty, complexity, and ambiguity in business environments (Hughes et al. 2020). The bottom line in this global business environmental transformation is that existing survival strategies, such as quality control and cost efficiency, can no longer guarantee success and sustainable competitiveness (Cho et al. 2017). Švarc, Lažnjak, and Dabić (2019) also add that rapid environmental changes have also increased the significance of intangible organisational assets such as capabilities and competencies. In the context of globalisation and competitive markets, organisational capabilities such as innovation capabilities have become more and more relevant and reliable as sources of competitive advantage (Behnam and Cagliano 2019; Cezarino et al. 2019). Like many other industries, the tourism industry has been no exception in having its innovative capabilities challenged amidst the increasingly competitive environment within which they operate.

For many economies, the tourism industry is a major source of foreign currency and a huge contributor to employment and job creation (Muchapondwa and Pimhidzai 2011). Dominated by small and medium enterprises (SMEs), the tourism industry of Zimbabwe also contributes significantly to the development and growth of the economy. Over and above a favourably warm climate, Zimbabwe hosts tourist attractions such as Victoria Falls (one of the Seven Wonders of the World), a diversity of wildlife, Lake Kariba, the Great Zimbabwe monuments, a world heritage site, and beautiful sceneries and eco-diversity in the Eastern Highlands. However, in 2000 the tourism industry was affected when the government of Zimbabwe adopted the controversial land reform programme, which was aimed at establishing the land-poverty nexus by redressing the unequal access to land (Hentze, Thonfeld, and Menz 2017; Ngarava 2020). According to Chibaya and Matura (2018), the country’s tourism sector witnessed a significant drop in international visitors owing to the violence and instability that characterised the land reform programme. Although the tourism industry experienced a dramatic drop in both income and tourist arrivals since 2000 (Woyo 2013; Woyo and Woyo 2017), it remains a significant source of foreign currency inflows (Muchapondwa and Pimhidzai 2011). Consequently, rejuvenating the tourism industry remains central to the resuscitation of the Zimbabwean economy, both in the short run and in the long run. While many SMEs
are entering or re-entering the tourism industry in Zimbabwe, their successful development remains constrained by several factors (Perenyi, Zolin, and Maritz 2018).

Since tourism is also an industry which is very much susceptible to the pressures of increased competition, globalisation, ecological and environmental demands, the tourism operators have had to become operationally more efficient and dynamic and even embrace a new mindset if they are to maintain or increase their market share (Adeola and Evans 2019; Law, Chan, and Wang 2018; Liu and Schänzel 2019). This “new” mindset is about the tourism operator’s capacity to transform and introduce new products to survive and thrive in the current business environment. Thus, tourism SMEs need to place innovation and new product development at the centre of their strategy (Wang, Wang, Chang, and Kang 2019). Innovation broadly refers to the introduction of new products, processes, and organisational or administrative structures, to achieve superior organisational performance, sustainability, and competitive edge (Tian et al. 2018). As such, it is categorised into product, process and organisational innovations and product innovation is remarkably essential for the development and survival of the firm. Defined by Pan and Li (2016) as an organisational effort to improve the cumulative quality of products to meet the needs of the market, product innovation significantly impacts on the firm’s performance. While some firms, especially the large corporations, have embraced the innovation drive within the tourism industry, SMEs are still lagging behind (Domi et al. 2019).

While innovation has received much scholarly attention over time, the factors influencing product innovation have yet to be sufficiently explored for tourism SMEs (Thompson, Herrmann, and Hekkert 2018). Over the years, management scholars have paid much attention to the significance of innovation, highlighting several of its antecedents such as capital intensity and financial leverage (Meng 2020), intensive support of R&D and education (Ehrenberger, Koudelkova, and Strielkowski 2015; Emodi et al. 2017) and organisational practices (Akgün, Keskin, and Kirçovalı 2019). This study develops on this line of empirical literature by providing a social dimension of the antecedents of product innovation. Also, these previous empirical studies have explored the determinants of product innovation from a technical perspective, neglecting to explore the social dimension, such as social capital and knowledge-sharing capabilities (Ellonen, Blomqvist, and Puimalainen 2008; Nonaka and Takeuchi 1995). While social capital and knowledge sharing have been identified as important for successful innovation (Hui, Phouvong, and Phong 2018; Wang et al. 2016), empirical evidence on the relationship remains scant. Examining the influence of social capital was also motivated by the fact that, despite a clearer understanding of the characteristic value of social capital (Payne et al. 2011), few studies have examined its influence on innovation. Furthermore, in times where the internet and social media have become indispensable sources of tourism information and experiences, there has been an attempt to clarify how tourism SMEs with hardly any access to funding (Kolade, Obembe, and Salia 2019) could capitalise on knowledge-flow and sharing to improve tourism revenues in an economically depressed country such as Zimbabwe.
Taking these factors into consideration, this study aims to investigate the mediating role of knowledge sharing on social capital and product innovation among SMEs in Zimbabwe. There is a growing stream of research that has emphasised that business and personal connections by an entrepreneur can be important sources of market intelligence and entry (Ibeh and Kasem 2011; Prashantham and Birkinshaw 2015). Hence, this study aimed at investigating the mediating role of knowledge sharing on social capital and product innovation among SMEs in Zimbabwe. This study addressed two principal objectives. Firstly, this study examined the directional relationships among interorganisational trust, social reciprocity, knowledge-sharing capability, and product innovation. Secondly, it determined the mediating role of knowledge-sharing capability on the relationship between interorganisational trust and social reciprocity and product innovation. The remainder of this article is organised as follows: First, the article reviews the literature on the theoretical framework underpinning the study as well as the empirical variables of interorganisational trust, social reciprocity, knowledge sharing, and product innovation. Following the literature review section is the description of the conceptual model and hypotheses development. Next, the article explains the research methodology employed in the study, followed by the section that reports the results of the study. Finally, the article concludes with a discussion on the managerial implications of the study, its limitations, and directions for future research.

**Literature Review**

**Social Capital Theory (SCT)**

This study is grounded on the social capital theory (SCT), which is regarded as one of the fastest-growing areas in organisational research (Kilubi and Rogers 2018). According to the SCT, firms and individuals aggregate webs of social relationships that support social, economic, political, and technological productivity. Social capital has broadly been defined as a social resource relating to the cumulative capacity of social groups to organise themselves, cooperate and work together for the common good, influenced by the individuals’ connection to the group (Adamtey and Frimpong 2018; Rivera et al. 2019). It refers to the mutual trust, influence and obligations of reciprocity that are potentially available individuals by virtue of their participation in social networks (Musembwa and Paul 2020). Aldrich (2012) advocates for a social network-based definition by stating that social capital relates to the intangible resources brought about by bonding, associating, and connecting social networks that transmit valuable norms and information. There is a general claim in the existing literature that social capital is as important as physical and human capital, and as is with the other forms of capital, it can be accumulated and invested to attain results that would otherwise be unattainable (Akpey-Mensah 2020; Yukongdi and Cañete 2020). Relational social capital refers to the extent to which network relationships stimulate emotional connections, social action and exchange of resources across members, leading to increase knowledge sharing and reciprocity (Pucci et al. 2020; Straub et al. 2020). Empirical evidence has shown that higher levels of relational social capital are associated with more mutual trust and low risk of opportunism (Chong et al. 2020; Jha
Relational social capital is reflected through numerous dimensions, including trust and social reciprocity. The social capital dimensions of trust and reciprocity are essential as they bring in a personal and strategic component of the capital where one expects a return of something from the generally wider society (Meek et al. 2019; Wang, McNally, and Lenihan 2019).

**Interorganisational Trust**

Trust has been simply defined in psychology as “the willingness of a party to be vulnerable based on the trustor’s positive expectations of the trustee” (Mayer, Davis, and Schoorman 1995, 721). In their seminal paper, Rousseau et al. (1998) add that trust is a psychological state that comprises of an intention to consent susceptibility by one party, based on a positive behaviour being expected from the other party. Other scholars like Jiang et al. (2016) have defined trust as the bet about the impending contingent behaviour and action by the trustee. In the business context, interorganisational trust refers to the multi-dimensional evolution of trust between organisations resulting from a long period of reciprocation and cooperation (Brugger 2015). The information gained throughout this period of interaction forms the basis for the development of the organisational trust. This is believed to facilitate collaboration, guarantee social interaction, and reduce the costs of negotiation between representatives of firms. Jen et al. (2020) emphasise that interorganisational trust helps create and develop long-term social attachments that foster collaborative partnerships and mutual relationships. In this study, interorganisational trust is contextualised as the firm’s commitment to a business relationship premised on the belief that the other party will perform positive actions leading to positive outcomes, and that practices which have negative outcomes will be avoided. According to Wang, Ye, and Tan (2014), interorganisational trust is important as it helps to reduce the costs relating to coordination and transaction risks in business relationships.

**Social Reciprocity**

In broad terms, social reciprocity has been defined as the extent to which a beneficiary to an act of benevolence also responds with a similar act of benevolence (Gouldner 1960). Social reciprocity occurs even when the returned act of benevolence is in-kind or comes after a substantial delay. It relates to the act of awarding someone a benefit in response to a similar act or anticipation benefit in the future and as such, it is an important element of cooperation and collaboration. It is a fundamental norm in the society which dictates that an obligation is created when one benefits from another (Gouldner 1960; O’Reilly and Main 2010). According to Gilliam and Rayburn (2016), social reciprocity is a significant component of collaboration because it fosters the notion of working together for a mutual drive. Entrepreneurs can integrate the potential resources that emerge from relational assets to build other core capabilities, including reciprocity (Hernández-Carrión, Camarero-Izquierdo, and Gutiérrez-Cillán 2017; Melton and Hartline 2015). Businesses have benefited from a clear framework of social
reciprocity because it ensures that cooperation is guaranteed among employees and stakeholders, creating an optimistic environment (Gilliam and Rayburn 2016).

**Knowledge-sharing Capability**

In today’s dynamic business environment, knowledge has been recognised as an intangible asset leading to competitiveness, and knowledge sharing is a critical component of the knowledge management process (Kampars et al. 2020). According to Maravilhas and Martins (2019), knowledge sharing refers to the strategic process of exchanging knowledge among firms to create new knowledge and new expertise for each other. In line with the above, Al-Busaidi and Olfman (2017) define knowledge-sharing capability as the seamless capacity to disseminate and circulate relevant information, ideas, recommendations and expertise through repositories or networking. Knowledge sharing and knowledge transfer have often been used interchangeably in the literature (Gao, Chai, and Liu 2018; Paulin and Suneson 2012) and this study adopts the term knowledge sharing and the corresponding definitions. It is essential, therefore, that firms create network systems for the development and circulation of knowledge among employees, both formally and informally. Information and communication technology infrastructure, such as social media and virtual networks, have grown to become important knowledge portals through which firms and individuals can access, generate, organise, share and use knowledge (Nisar, Prabhakar, and Strakova 2019). The effective exchange of knowledge among firms may assist in understanding better the demands of both the market and the customers (Ip-Soo-Ching, Zyngier, and Nayeem 2019). Some of the notable outcomes of efficient knowledge sharing include firm effectiveness and competitiveness, innovativeness, production efficiency, team performance, satisfaction, and financial performance. Since knowledge is an important organisational asset, that is crucial to attaining success, firms should endeavour to acquire and reuse knowledge to ensure continuous improvement (Grover and Froese 2016). There is an increased realisation that firms that acquire knowledge and use it effectively, are guaranteed of a sustainable competitive advantage (Mahdi, Nassar, and Almsafir 2019).

**Product Innovation**

The turbulence in the business environment and the technological advances that are happening have elevated innovation to become a core source of sustainable competitive advantage. This is because firms that are actively involved in innovativeness are more likely to successfully develop new technologies and systems that respond to the changing environment, thereby attaining superior performance (Bustinza et al. 2019). Firms are gradually realising that investment in research and development and new product development are necessities for survival and competitive advantage (Mu et al. 2017). Innovation is defined as the development and application of new combinations of existing technologies and creative exploitation of those technologies resulting in the introduction of new products, processes, or markets (Hsiao and Hsu 2018; Podrug, Filipović, and Kovač 2017). The term “innovation” has also been used to refer to product processes and organisational enhancement within a business set-up, and
according to Abazi-Alili, Hashi, and Abazi (2017) product innovation relates to the provision of novel or improved goods or services. Product innovation is usually considered one of the measures of SME performance (Hove-Sibanda, Sibanda and Pooe, 2017). This form of innovation can occur in the form of entirely new products and services being introduced to a market, or through significant improvements to existing products and services (Bozkurt and Kalkan 2014). Because of the rapidity and turbulence in the business environment, entrepreneurial firms need to swiftly integrate the latest technologies into their products to differentiate their new products from available alternatives and to maintain competitiveness. Entrepreneurial firms that participate in product innovation, act proactively, and stand better chances of being the first to come up with new products that are appealing to the market.

Conceptual Framework and Hypotheses Development

The social capital theory applied to this entrepreneurship research allows a better understanding of alternative antecedents of product innovation. In resource-constrained firms, social capital could bring about productivity and efficiency. Grounded in this review, the following conceptual model is formulated, and hypotheses are proposed.

The foundation of this research was laid down by the conceptual model and having clarified the nature of social capital as it pertains to this study, the question that arises relates to the soundness of the hypothesised relationships. In considering social capital theory as an explanatory theory for organisation inertia, this study takes the perspective of the individuals within the firm whose behaviour influences the organisational outcomes. In particular, this study intends to show that the social capacity of individuals...
within a firm can influence knowledge-sharing capabilities and ultimately product innovation.

**Interorganisational Trust, Knowledge-sharing Capability, and Product Innovation**

There is a growing strand of literature that supports the notion that interpersonal trust is the dynamic link and emotional tie that connect individuals in firms (Agyare et al. 2019; Wankhade and Patnaik 2020). It has been commended for its significant influence on several positive organisational outcomes, such as employee satisfaction and organisational performance. According to Yuan, Olfman, and Yi (2020), institution-based trust and interpersonal trust significantly affect interdepartmental knowledge sharing. As such, interorganisational trust is largely oriented toward openness, and this is valuable in fostering knowledge and ideas sharing. Trust in relationships often lead to greater sharing, and when trust exists, people are more likely to pursue and absorb one another’s knowledge and are themselves more willing to provide insights and useful knowledge (Stouten and Liden 2020). This dimension of trust has also been acknowledged by Jen et al. (2020) as a significant predictor of good corporate governance mechanisms that facilitate knowledge sharing in supply chains. Since successful product innovation is predominantly based on the observation of consumers’ behaviours and needs (Kuncoro and Suriani 2018) both interorganisational trust and knowledge sharing are important. Since interorganisational trust represents a commitment to a business relationship, it thus promotes exchanges between businesses and improves the possibility of knowledge sharing. Building product innovativeness on trust within the industry and knowledge obtained thereof, strategically positions the firm in the market and enables it to withstand competitors’ attacks by meeting the needs of emerging customers and markets. The following hypotheses are made considering the above arguments.

\[ H_1 \]  **There is a positive and significant relationship between interorganisational trust and product innovation among tourism small and medium enterprises.**

\[ H_2 \]  **There is a positive and significant relationship between interorganisational trust and knowledge-sharing capability among tourism small and medium enterprises.**

**Social Reciprocity, Knowledge-sharing Capability and Product Innovation**

The act of sharing knowledge is closely related to an individual’s readiness to share knowledge and cannot be forced, but must be encouraged and facilitated (Liao, To, and Hsu 2013). This implies that the social norm of reciprocity and associated individual propensity to engage in reciprocity, are central to the sharing of knowledge. Generally, individuals who share knowledge with others tend to expect others to do the same, and the social exchange theory supports the notion that individuals who engage in social interaction usually do that on the basis of cost and benefit considerations (Liao et al.
In this era, where social media has become a ubiquitous platform allowing people and businesses to share information knowledge and resources globally (Choi and Lee 2017; Yadav and Rahman 2017), social reciprocity is important. Gan (2017) conceptualised that individuals who develop a reciprocal relationship through communicating and sharing information, usually obtain the support of others, thereby enhancing their relationships. A high level of reciprocity will promote the exchange of ideas, information and technologies, thereby promoting the elimination of geographical and social boundaries and fostering product innovation.

\(H_3\) There is a positive and significant relationship between social reciprocity and product innovation among tourism small and medium enterprises.

\(H_4\) There is a positive and significant relationship between social reciprocity and knowledge-sharing capability among tourism small and medium enterprises.

Knowledge-sharing Capability and Product Innovation

In many firms, large and small, knowledge is continually being applied and transformed into new products, services and processes. Buenechea-Elberdin, Saenz, and Kianto (2018) investigated the role of knowledge-management strategies in fostering innovation in Spanish and Colombian high-tech firms, and their results demonstrated that the employees’ knowledge-sharing mechanisms are central to innovation capability. Research has also shown that knowledge is an important ingredient for increased innovation speed and quality. It is widely believed that knowledge is an important resource that enables firms and individuals to attain several benefits such as enhanced learning, innovation, and decision-making (Al-Busaidi and Olfman 2017). It fosters creativity by encouraging the free flow of ideas, employees’ expertise and skills, thereby providing an opportunity for mutual learning at both individual and organisational level (Eid and Al-Jabri 2016). It is imperative, therefore, that firms which seek to develop new products motivate their knowledge-sharing mechanisms to achieve superior performance. Given the arguments above, this study formulates the following hypothesis.

\(H_5\) There is a positive and significant relationship between knowledge-sharing capability and product innovation among tourism small and medium enterprises.

The Mediating Role of Knowledge-sharing Capability

The relentless drive for competitive advantage in terms of superior products among firms has led to the alteration of manufacturing processes, continuously driving the innovation (Buenechea-Elberdin et al. 2018). With social networking having developed beyond social interactions to incorporate business functions—such as inter-organisational learning, knowledge transfer and resource-sharing activities—the significance of knowledge sharing has intensified. Firms are, therefore, encouraged to
create an organisational culture that promotes learning and collaboration to ensure superior performance (Bae and Grant 2018). In this regard, since knowledge flows have significantly aided SMEs to access resources necessary for innovation, the following hypotheses are made.

\[ H_6 \text{ Knowledge-sharing capability mediates the relationship between interorganisational trust and product innovation among tourism small and medium enterprises} \]

\[ H_7 \text{ Knowledge-sharing capability mediates the relationship between social reciprocity and product innovation among tourism small and medium enterprises.} \]

Research Methodology

Research Paradigm and Methodology

In the quest to answer the question pertinent to this research and test the theoretically grounded hypotheses in a manner that is consistent with similar studies on SMEs’ product innovation, for example by Jensen et al. (2016), this study adopted a positivist paradigm. The adoption of the positivist paradigm informed the research approach and process, data collection, and analysis. A deductive quantitative methodology was employed to improve objectivity and generalisation.

Study Population and Sampling

The respondents were drawn using a simple random sampling technique from a database created and maintained by the Zimbabwe Tourism Authority (ZTA) of Sanganai/Hlanganani World Tourism Expo participants. This exhibition features participants from all 10 provinces of Zimbabwe and in total, the 987 tourism SMEs in the ZTA database constituted the study population. A sample was drawn using simple random sampling to ensure a broad size and age range coverage. The complete sample consisted of 250 SMEs. This size was chosen because it allows for effective data analysis using structural equation modelling (SEM). In addition, previous studies have also made use of similar sample sizes. Mkono, Markwell, and Wilson (2013) carried out a netnographic analysis of food experiences in Victoria Falls, Zimbabwe with a sample of 285 tourists, while Mutanga et al. (2017) used a sample of 228 to study travel motivation and tourist satisfaction in Gonarezhou and Matusadona National Parks in Zimbabwe. A combination of the drop-and-collect technique was used, as advocated for by Ibeh, Brock, and Zhou (2004), and e-mail, which asked respondents to participate in an online survey. This approach resulted in an 84.4% response rate equivalent to 211 responses. Owners and managers were the key informants in this study because they have a reliable view of the firm, hence can provide reliable information.
Measurement

The data used in this study was collected through a questionnaire, which highlighted the items relating to the constructs. All the items used in this study were adapted from prior studies to ensure content validity. Measures of social reciprocity were adapted from Huang and Li (2017), while interorganisational trust was measured using a four-item scale from Ashnai et al. (2016). Knowledge-sharing capability was measured using items adapted from Presbitero, Roxas, and Chadee (2017) and Kokanuch and Tuntrabundit (2017), and product innovation was measured using items adapted from Liao, Fei, and Chen (2007) and Najafi-Tavani et al. (2018). A five-point Likert scale, ranging from “strongly disagree – 1” to “strongly agree – 5” was used to measure all the items, and structural equation modelling (SEM) was employed to analyse the data.

Data Analysis

In this study, descriptive statistics and regression coefficients obtained through analyses conducted in the Statistical Package for the Social Sciences (SPSS) version 25 and SPSS AMOS 25 were used to perform the statistical analyses. Structural equation modelling (SEM) was adopted as the main data analysis technique because of its ability to test the existence of relationships and ensure methodological rigor. SEM has many advantages compared to other multivariate procedures, the main one being that it adopts a confirmatory as opposed to an exploratory approach in analysing data, hence it is appropriate for inferential data analysis. The two-step approach recommended by Anderson and Gerbing (1988) was used to test the measurement model before testing the structural model. In this regard, confirmatory factor analysis (to confirm goodness-of-fit of the model and validity and reliability of the measuring instrument) and structural path analysis were conducted. According to Ramayah, Lee, and In (2011), mediation is employed to evaluate the capacity of a mediator variable to significantly transmit the impact of the independent variable on the dependent variable. To calculate mediation, the Baron and Kenny (1986) approach was employed. The approach stipulates that full mediation is achieved when the relationship between the predictor variable and the outcome variable is no longer significant when the mediating variable is added. In turn, partial mediation is achieved when all the relationships remain significant, even after the introduction of the mediating variable. Mediation analysis is thus a computation of the indirect effect of a mediator on the relationship between the independent and the dependent variable.

Discussion of Results

Participants’ Profile

This study sought to establish the demographic characteristics of the participants. Table 1 below shows the profiles of the participants in this study.
Table 1: Demographics of sample

<table>
<thead>
<tr>
<th></th>
<th>No. of respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21–30</td>
<td>56</td>
<td>26.54</td>
</tr>
<tr>
<td>31–40</td>
<td>81</td>
<td>38.39</td>
</tr>
<tr>
<td>41–50</td>
<td>63</td>
<td>29.86</td>
</tr>
<tr>
<td>52 or older</td>
<td>11</td>
<td>5.21</td>
</tr>
<tr>
<td>Total</td>
<td>211</td>
<td>100</td>
</tr>
<tr>
<td>Line of Business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accommodation</td>
<td>107</td>
<td>50.71</td>
</tr>
<tr>
<td>Tour Operator</td>
<td>74</td>
<td>35.07</td>
</tr>
<tr>
<td>Travel Agency</td>
<td>23</td>
<td>10.90</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>3.32</td>
</tr>
<tr>
<td>Total</td>
<td>211</td>
<td>100</td>
</tr>
<tr>
<td>Years in Business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 1</td>
<td>52</td>
<td>24.64</td>
</tr>
<tr>
<td>1–5</td>
<td>76</td>
<td>36.02</td>
</tr>
<tr>
<td>6–10</td>
<td>68</td>
<td>32.23</td>
</tr>
<tr>
<td>More than 10</td>
<td>15</td>
<td>7.11</td>
</tr>
<tr>
<td>Total</td>
<td>211</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Own research

From the results obtained in the study, the majority of the respondents were between the age of 31 to 40 (38.39%), followed by the age group 41 to 50 (29.86). The most prominent line of business among the respondents was accommodation (107, 50.71%), followed by tour operators who constituted 35.07% of the sample. Most of the respondents had been in business for less than five years (less than 1 year, 24.64; 1 to 5 years, 36.02%).

Goodness-of-fit Indicators

One of the critical steps in the application of structural equation modelling (SEM) is the evaluation of the goodness-of-fit indicators of the model with the data. In cases like this study, where maximum likelihood has been used to estimate a model, the likelihood ratio (LR) test statistic is regarded as the most commonly used test for assessing the overall goodness-of-fit (Jöreskog 1969; Maydeu-Olivares 2017). This estimation encompasses appropriate indicators of fit and is achieved through three indicators (see Table 2, absolute, incremental and parsimony); all of these should achieve satisfactory levels. In this study, the goodness-of-fit of the models was assessed primarily by using the maximum-likelihood $\chi^2$ statistic/df, the Comparative Fit Index (CFI), and the root mean squared error of approximation (RMSEA) (Bentler and Dudgeon 1996; Hu and Bentler 1999).
Table 2: Goodness-of-fit indicators of constructs and relationship model

<table>
<thead>
<tr>
<th>Type of fit</th>
<th>Indicator</th>
<th>Nomenclature</th>
<th>Acceptance range</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute</td>
<td>Goodness-of-fit index</td>
<td>GFI</td>
<td>&gt;0.900</td>
<td>0.923</td>
</tr>
<tr>
<td></td>
<td>Root mean square error</td>
<td>RMSEA</td>
<td>0.050–0.080</td>
<td>0.055</td>
</tr>
<tr>
<td>Incremental</td>
<td>Compared fit index</td>
<td>CFI</td>
<td>&gt;0.900</td>
<td>0.912</td>
</tr>
<tr>
<td></td>
<td>Tucker–Lewis index</td>
<td>NNFI</td>
<td>&gt;0.900</td>
<td>0.943</td>
</tr>
<tr>
<td>Parsimony</td>
<td>chi-square (χ²)/df</td>
<td>CMINDF</td>
<td>Range (1–3)</td>
<td>2.381</td>
</tr>
</tbody>
</table>

Source: Own research

To ensure model fitness, the Goodness-of-fit (GFI) index must be greater than 0.900 and, in this study, the GFI was .923, which meant the model fitted well with the data. Also, the Root Mean Square Error of Approximation (RMSEA) was evaluated. The RMSEA has been referred to as a “badness-of-fit” measure, yielding lower values for a better fit. The RMSEA measures fit per degrees of freedom, controlling for sample size, and values of less than .06 indicate a relatively good fit (Hu and Bentler 1999). The CFI (Yuan and Bentler 2006) measures the relative advance in fit from the baseline model to the postulated model, while the Tucker-Lewis index (TLI) (Tucker and Lewis 1973) measures the relative decrease in misfit per degree of freedom. CFI values that range from 0 to 1 reflect the fitness movement in the hypothesised model (Yuan and Bentler 2006), and values approaching .95 or greater are desirable for the CFI. Both the CFI and the TLI showed a significant fit and made the model acceptable.

Validity and Reliability of Measures

It is also important that, before proceeding to the structural evaluation of the model, the research instruments are evaluated for reliability and validity. A confirmatory factor analysis (CFA) was conducted to evaluate the instrument for convergent, as well as discriminant, validity. In this study, reliability was measured in terms of the composite reliability, while validity in its different forms was evaluated using the Average Variance Extracted and the factor loadings.
Table 3: CFA for independent and dependent variables

<table>
<thead>
<tr>
<th></th>
<th>Factor Loading</th>
<th>AVE Value</th>
<th>C.R. Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interorganisational Trust (IT)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT1</td>
<td>.889</td>
<td>.667</td>
<td></td>
</tr>
<tr>
<td>IT2</td>
<td>.780</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT3</td>
<td>.840</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT4</td>
<td>.890</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social Reciprocity (SR)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR1</td>
<td>.690</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR2</td>
<td>.670</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR3</td>
<td>.810</td>
<td>.518</td>
<td></td>
</tr>
<tr>
<td>SR4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Knowledge-sharing Capability (KSC)</strong></td>
<td>.802</td>
<td>.510</td>
<td></td>
</tr>
<tr>
<td>KS1</td>
<td>.590</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KS2</td>
<td>.890</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KS3</td>
<td>.710</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KS4</td>
<td>.630</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Product Innovation (PI)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI1</td>
<td>.680</td>
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<td></td>
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<tr>
<td>PI2</td>
<td>.840</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI3</td>
<td>.740</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI4</td>
<td>.670</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Own research

For reliability to be achieved, the value of the composite reliability (CR) should be above 0.70 (Chen and Pearl 2015) and in this study, the values are between .802 and .889, which are above 0.70, indicating that the instrument has high reliability. Average variance extracted (AVE) values estimates should exceed the critical values of 0.50, as values above 0.50 indicate convergent validity of all constructs (Fornell and Larcker 1981). The AVE values are between .510 and .667, indicating a high level of validity (Fornell and Larcker 1981). Convergent validity is indicated by factor loadings above
0.5 (Cole 1987) and all the factors in this model loaded above 0.50, representing validity.

### Table 4: Correlations among major constructs

<table>
<thead>
<tr>
<th>Construct</th>
<th>AVE</th>
<th>IT</th>
<th>SR</th>
<th>KS</th>
<th>PI</th>
</tr>
</thead>
<tbody>
<tr>
<td>iT</td>
<td>0.667</td>
<td>.817*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SR</td>
<td>0.518</td>
<td>0.689</td>
<td>0.720*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KS</td>
<td>0.510</td>
<td>0.625</td>
<td>0.554</td>
<td>0.714*</td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>0.541</td>
<td>0.701</td>
<td>0.687</td>
<td>0.699</td>
<td>0.717*</td>
</tr>
</tbody>
</table>

Note: *The bold elements are the square root of AVE. The off-diagonal elements are the correlations among the constructs. For discriminant validity, diagonal elements should be larger than off-diagonal.

Discriminant, also referred to as divergent validity, represents the extent to which a measure is not excessively related to other similar, yet distinctive, constructs (Messick 1989). For all variables examined, for validity to hold, the correlation between constructs must be smaller than the square roots of AVE, in the correlation matrix. As presented in Table 4, all the square roots of AVE were greater than the inter construct correlation, indicating discriminant validity.

### Structural Equation Model Analysis

In order to decide about the proposed hypothesis, there was a need to conduct a structural equation model analysis. Table 5 below shows the results of the structural equation model analysis and overall, the hypothesised relationships were supported.

### Table 5: Results of direct effects and mediation analysis

<table>
<thead>
<tr>
<th>Path</th>
<th>Path coefficient</th>
<th>t-value</th>
<th>p-Value</th>
<th>Final Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 IT→PI</td>
<td>.287</td>
<td>11.236</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>H2 IT→KSC</td>
<td>.469</td>
<td>9.569</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>H3 SR→PI</td>
<td>.310</td>
<td>4.542</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>H4 SR→KSC</td>
<td>.229</td>
<td>3.279</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>H5 KSC→PI</td>
<td>.109</td>
<td>2.988</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>H6 IT→KSC→PI</td>
<td>Both paths significant</td>
<td></td>
<td></td>
<td>Partial Mediation</td>
</tr>
<tr>
<td>H7 SR→KSC→PI</td>
<td>Both paths significant</td>
<td></td>
<td></td>
<td>Partial Mediation</td>
</tr>
</tbody>
</table>

Source: Own research

In regression analysis, the t-value reflects how many standard errors the coefficient is away from zero, and the higher the t-value, the greater the confidence the researcher can have in the coefficient as a predictor. H1 proposed that there is a positive and significant
relationship between IT and PI; the results obtained were $\beta = .287$; $t = 11.236$ at $p \leq 0.001$. The path coefficient was positive, and the level of significance was within acceptable limits and as such, there is adequate evidence to support H1. This result corroborates with the findings of Du and Williams (2017), who studied the role of IT in innovative projects between multinational corporations’ subsidiaries and local partners in China. Their findings highlight that the nature of trust between these partners determines the success of innovative initiatives. Also, Vaccaro, Parente, and Veloso (2010) obtained similar results in a study on the role of mutual trust in technology-based innovation. Results similar to those of H1 were obtained for H2, which proposed a positive and significant relationship between IT and KSC, which has a $\beta = .469$ and $t = 9.569$ at $p \leq 0.001$). A study by Svare, Gausdal, and Möllering (2020) obtained similar results on the role of benevolence-based trust and knowledge sharing in Brazil. As proposed in H2, their findings indicate that benevolence-based trust is a significant determinant of knowledge sharing among firms.

In this study, H3 proposed a positive and significant relationship between SR and PI, while H4 proposed that there is a positive and significant relationship between SR and KSC. The results show that both hypotheses were supported. The results for H3 and H4 were $\beta = .310$, $t = 4.542$, $p \leq 0.001$ and $\beta = .229$, $t = 3.279$, $p \leq 0.001$ respectively, supporting both hypotheses as proposed. The results on the two hypotheses are in line with the findings from a study by Ganguly, Talukdar, and Chatterjee (2019), who studied the influence of knowledge reciprocity and relational social capital on knowledge sharing, and on innovation. In addition, Camps and Marques (2014), who studied innovation enablers, support the positive influence of SR on PI as proposed in H3. In this study, H5 stated that there is a positive and significant relationship between knowledge-sharing capability and product innovation. The results obtained from the study indicate that hypothesis H5 is supported, as the $\beta = .109$; $t = 2.988$ and $p \leq 0.001$; this is in line with the findings by Wang and Wang (2012), whose study also highlights a positive and significant influence of KSC. However, contrary to these findings, Yêşil and Dereli (2013) found that sharing knowledge does not have a significant influence on innovation capability. To confirm H6 and H7, a hierarchical regression analysis was conducted, following the Baron and Kenny (1986) mediation determination steps. For both H6 and H7, as presented in Table 4, the direct and the indirect paths are positive and statistically significant, implying partial mediation. Since partial mediation has been achieved, both H6 and H7 are supported. Although carried out in the context of innovative performance, a study by Han and Chen (2018) supports the mediating role of KSC in a relationship between IT and innovation. The mediating effect of KSC on the relationship between SR and PI is also supported by Ganguly et al. (2019).

The study developed a theoretical model that was evaluated using SEM and the results provide empirical support for the seven hypotheses made. From the empirical results of the study, the social capital dimensions (interorganisational trust and social reciprocity) have a positive influence on product innovation in Zimbabwean SMEs, as mediated by knowledge-sharing capability. Both interorganisational trust and social reciprocity have
a propensity to positively affect knowledge-sharing capabilities of the firm, which in turn will influence product innovation positively. These results are in line with the findings of Laursen, Masciarelli, and Prencipe (2012) who carried out a study on the innovative activities of a representative sample of 2,413 Italian manufacturing firms from 21 regions. They found empirical support for the significance of regional social capital as an important driver of product innovation in Italy. Also, in line with this study, Yeşil and Doğan (2019) provide empirical evidence to support the notion that social capital is an important antecedent of innovation capability and innovation, through a study conducted in Turkey. The research findings derived from this study contribute to the entrepreneurial debate as to how businesses can increase product innovation to survive in this dynamic environment. The emphasis is on the need to leverage on social dimensions as a route to foster innovation and innovation capacity among organisations.

Conclusion

The findings from this study make some significant practical contributions. Firstly, the study provides valuable insights for managers and owners of tourism SMEs on how to ensure innovation and growth from a social perspective. From the dimensions where interorganisational trust and social reciprocity were considered valuable, this study empirically demonstrated that these variables could aid in driving product innovation within the tourism context. The results suggest that managers who seek to improve their innovation capacity, must strive to improve interorganisational trust and social reciprocity among its employees, because this would improve the capacity to share knowledge and eventually, improve product innovation. In this regard, managers and owners of firms must strive to improve on social capital formation. Managers are compelled to invest in trust and social reciprocity as part of their relational strategy; and in the case where there has been a violation of trust with other organisations, it is important that managers craft and implement trust repair initiatives like apology and goodwill, as suggested by Božič, Siebert, and Martin (2020). This will lead to increased organisational trust and will promote longer-term social reciprocity, thus ensuring that innovative ideas circulate among employees and that the firm can exploit the new insights shared into innovative products. Although other parameters may influence product innovation, it is empirically evident that both relational social capital and knowledge-sharing capabilities play a significant role in ensuring increased product innovation. Both theoretical and empirical evidence confirms that knowledge sharing is vital for organisational success, hence the findings of this study inform managers regarding the need to prioritise knowledge sharing in order to strategically position their product innovation stance. This is in line with the arguments by Zulu-Chisanga et al. (2016) that SMEs managers should focus on fully utilising firm-specific knowledge in order to create effective business processes and product offerings.

Despite the significant contributions from the study, it has several limitations that offer scope and opportunity for future research. First, this research was limited to relational social capital, and this offers scope for future research across other dimensions of social
capital. This study also conceptualised only interorganisational trust and social reciprocity as predictors of knowledge sharing and product innovation. The conceptual model thus omits other subconstructs of relational social capital that may be important in the determination of product innovation. There are other factors, such as social relationships, integrity, benevolence, and credibility, which are the drivers of social capital, according to Seppänen, Blomqvist, and Sundqvist (2007), which this study did not take into consideration. Since the study examined only one dimension of social capital, the results may not be generalisable to other social capital dimensions like institutional social capital and organisational social capital. In addition, there is also a need to conduct an exploratory qualitative study to systematically identify and determine the factors that influence knowledge-sharing capability and product innovation. The cross-sectional nature of the study limits its capacity to show causality in the conceptual model and, as such, future studies could test the proposed model with an experimental or longitudinal design to address the methodological limitations.

Building on the limitations of the study, future research should emphasise the intensity of the social capital dimension, by including other components of social capital other than relational social capital, which was the focus of this study. According to Fernandez and Bernardz (2018), there are three dimensions of social capital, namely relational social capital, institutional social capital, and organisational social capital. It is recommended that future studies should also consider these other variables. A longitudinal research design can be the next step for further research to fully understand how the impact of social capital on product innovation evolves. The study also ignored the moderating effect of variables such as demographics and situational variables, which may be worth investigating. Future research can replicate this study using more elaborate measures for both relational social capital and product innovation, as will be dictated by the review of literature.

References


