

Naicker, Visvanathan; Le Roux, Suzaan; Bruwer, Juan et al.

## Article

# Knowledge sharing as a value-adding initiative for South African SMME sustainability : a literature review

Expert journal of business and management

## Provided in Cooperation with:

Expert Journal of Business and Management

*Reference:* Naicker, Visvanathan/Le Roux, Suzaan et. al. (2017). Knowledge sharing as a value-adding initiative for South African SMME sustainability : a literature review. In: Expert journal of business and management 5 (2), S. 51 - 60.

This Version is available at:

<http://hdl.handle.net/11159/1346>

## Kontakt/Contact

ZBW – Leibniz-Informationszentrum Wirtschaft/Leibniz Information Centre for Economics  
Düsternbrooker Weg 120  
24105 Kiel (Germany)  
E-Mail: [rights\[at\]zbw.eu](mailto:rights[at]zbw.eu)  
<https://www.zbw.eu/>

## Standard-Nutzungsbedingungen:

Dieses Dokument darf zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden. Sie dürfen dieses Dokument nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, aufführen, vertreiben oder anderweitig nutzen. Sofern für das Dokument eine Open-Content-Lizenz verwendet wurde, so gelten abweichend von diesen Nutzungsbedingungen die in der Lizenz gewährten Nutzungsrechte. Alle auf diesem Vorblatt angegebenen Informationen einschließlich der Rechteinformationen (z.B. Nennung einer Creative Commons Lizenz) wurden automatisch generiert und müssen durch Nutzer:innen vor einer Nachnutzung sorgfältig überprüft werden. Die Lizenzangaben stammen aus Publikationsmetadaten und können Fehler oder Ungenauigkeiten enthalten.

<https://savearchive.zbw.eu/termsfuse>

## Terms of use:

*This document may be saved and copied for your personal and scholarly purposes. You are not to copy it for public or commercial purposes, to exhibit the document in public, to perform, distribute or otherwise use the document in public. If the document is made available under a Creative Commons Licence you may exercise further usage rights as specified in the licence. All information provided on this publication cover sheet, including copyright details (e.g. indication of a Creative Commons license), was automatically generated and must be carefully reviewed by users prior to reuse. The license information is derived from publication metadata and may contain errors or inaccuracies.*

# Knowledge Sharing as a Value-Adding Initiative for South African SMME Sustainability: A Literature Review

Visvanathan NAICKER<sup>1</sup>, Suzaan LE ROUX<sup>1</sup>, Juan BRUWER<sup>2</sup> and Juan-Pierré BRUWER<sup>1\*</sup>

<sup>1</sup>Cape Peninsula University of Technology, South Africa

<sup>2</sup>Independent Researcher

*Knowledge management is deemed as an important tool for an array of firms across the globe to fortify their overall sustainability. In particular, the proper management of knowledge inside a firm should allow for better efficiency and effectiveness. One of the facets of knowledge management is that of knowledge sharing; better understood as the dissemination of knowledge (insight) to such an extent, and in such a manner, that it assists with the solving of problems and/or the creation of solutions within a firm. Albeit the aforementioned, it appears that small businesses (SMMEs) in South Africa do not make use of sound knowledge sharing initiatives as they have one of the worst sustainability rates in the world. Through the conduct of non-empirical research, this matter was theoretically investigated where it was found that the lack of knowledge sharing as a value-adding initiative within South African SMMEs is assumed to have a theoretically adverse influence on the effectiveness, efficiency and sustainability in these firms. Taking into account the findings, it was concluded that ultimately, the knowledge sharing initiatives in South African SMMEs are incomprehensive in their coverage to provide general guidance as to how these firms can share knowledge as to provide reasonable assurance surrounding their effectiveness, efficiency and sustainability in the foreseeable future. Moreover, relevant hypotheses were developed as avenues for further empirical research.*

**Keywords:** Knowledge sharing, sustainability, knowledge, management, SMMEs, South Africa

**JEL Classification:** D80, J50, M12

---

\* Corresponding Author:

Juan-Pierré Bruwer, Cape Peninsula University of Technology, School of Accounting Sciences, South Africa, Cape Town

Article History:

Received 23 May 2017 | Accepted 7 July 2017 | Available Online 14 July 2017

Cite Reference:

Naicker, V., Le Roux, S., Bruwer, J. and Bruwer, J.P., 2017. Knowledge Sharing as a Value-Adding Initiative for South African SMME Sustainability: A Literature Review. *Expert Journal of Business and Management*, 5(2), pp.51-60.

## 1. Introduction

As from the early 2000s, knowledge has been recognised as a significant resource in firms around the globe (Earl, 2001) which, in turn, spurred on the need for processes which can facilitate the creation, sharing and leveraging of knowledge (Becerra-Fernandez and Sabherwal, 2001; Ipe, 2003; Zieba et al., 2016). Knowledge can be viewed as the possession of information on information which can be leveraged to create *inter alia* a competitive advantage, enhanced innovation, improved creativity and greater authority (Pemberton and Stonehouse, 2000). In essence, if knowledge is effectively managed (i.e. created, shared, leveraged), it is highly likely to result in innovation (Brown and Duguid, 1991; Hinds et al., 2001; Mphahlele, 2010; Nejati et al., 2010; Aslani et al., 2012; Dube and Ngulube, 2012). Notwithstanding the above knowledge, among other (intangible) assets, is also of vital importance for any firm to become sustainable (Jackson et al., 2006; Nejati and Nejati, 2008; Antoncic and Omerzel, 2008; Du Plessis, 2011; Mohsam and Van Brakel, 2011). Sustainability pertains to a firm's ability to remain in operation, for an extended period of time, by means of achieving its relevant objectives. These objectives may include the execution of social responsibilities, environmental responsibilities and/or economic responsibilities (Pojasek, 2010; Goel, 2010; Alhaddi, 2015).

Fundamentally speaking, the management of knowledge in any firm is subjective in nature (Ipe, 2003). This is particularly the case since knowledge management (KM) is the intentional and methodical coordination of a firm's people/culture, processes and technology which is used to identify, select, organise, share and publish vital information in relation to firm activities which, in turn, may influence the execution of operations (Gupta et al., 2000; Geisler and Wickramasinghe, 2009; Zack et al., 2009; Nazari et al., 2016). Otherwise stated, KM has to do with an integrated approach to identify, capture, evaluate, retrieve and share all of a firm's information assets which can include databases, documents, policies, procedures and un-captured experience and expertise of individual employees (Koenig, 2012).

In most cases KM is very valuable for internal usage and mainly takes place at three levels: 1) individual level (individual employees), 2) group level (departments/units/teams/clusters), and 3) firm level (entire organisation) (Nonaka and Takeuchi, 1995; De Long and Fahey, 2000). KM can be used for internal purposes (employees, teams, units, etc.) or for external purposes (customers, suppliers, etc.) (Donate et al., 2017). Similarly, KS can also take place internally or externally. For this paper, emphasis was placed on the internal usage of KS initiatives. Using the above as a basis, it is not surprising that previous research studies show that the manner in which knowledge is managed in a firm will have a direct influence on its overall effectiveness (which refers to the extent to which a business' objectives are achieved (Business Dictionary, 2017a)), efficiency (which has to do with the time taken to complete tasks; the less time it takes to complete tasks, the more efficient a firm is perceived to be (Business Dictionary, 2017b), and sustainability (Ipe, 2003; Mohsam and Van Brakel, 2011; Robertson, 2016; Wang and Wang, 2016). In quintessence the influence of KM is ascribed to its girth nature – previous studies (Forte et al., 2016; Osman and Ngah, 2016; Romani, 2017) show that KM comprises knowledge acquisition, knowledge accumulation, knowledge creation, knowledge protection and that of knowledge sharing (KS).

KS refers to the process where relevant firm stakeholders mutually exchange implicit and explicit knowledge with the main intent to create new knowledge (Van Den Hooff and De Ridder, 2004; Paulin and Suneson, 2012) in order to provide/share insight, through suitable media, to assist and/or collaborate with stakeholders to *inter alia* solve problems, develop new ideas, or implement policies or procedures – to surmount adversity and necessitate a major transformation in firm culture (Pulakos et al., 2003; Cummings, 2004). According to previous research studies (Chen Huang, 2009; Chen Yang and Kiang Farn, 2009; Wang and Noe, 2010), KS may result in *inter alia* better business efficiency, better business effectiveness, improved inter-related trust, reduced costs, enhanced innovation, and better team performances (Inkpen and Tsang, 2005; Chen Huang, 2009; Chen Yang and Kiang Farn, 2009; Wang and Noe, 2010). Albeit the aforementioned, there are several influential factors which impact the overall influence of KS in a firm, *inter alia* time available to share knowledge, concerns about job security, differences in experience levels, differences in levels of competency, amount of interaction, communication styles, age-gaps, gender, staff morale, access to knowledge, level of trust, recognition, incentives and cultural differences (Awad and Ghaziri, 2004; Riege 2005; Hislop, 2005; Hong et al., 2011).

Using the above as a basis, it becomes apparent that although KS is of paramount importance to firms, it should also have a positive influence on Small, Medium and Micro Enterprises (SMMEs) in South Africa (SA). Unfortunately, previous studies (Wiese, 2014; Bruwer, 2016) show that South African SMMEs have one of the worst sustainability rates in the world as more than 70% of these business entities fail after being in

existence for three years. Hence, this study was conducted to theoretically investigate whether KS initiatives have an influence on the overall sustainability of South African SMMEs.

For the remainder of this paper, discussion takes place under the following main headings: 1) research design and research methodology, 2) literature review, 3) conclusion, 4) managerial implications, 5) avenues for further studies.

## 2. Research Design and Methodology

Non-empirical research was conducted for this study, which fell within the interpretivistic research paradigm, with the main intent to develop theories pertaining to the influence of KS on the effectiveness, efficiency and sustainability of South African SMMEs. Specifically a thorough literature review was conducted whereby 86 sources were utilised to develop the respective theories (see Table 1).

*Table 1. Summary of literature sources used*

Source type	Quantity
Journal articles	61
Books	8
Theses/dissertations	5
Professional websites	5
Conference papers	4
Reports	2
Legislation pieces	1

The literature review conducted is evident in Section 3 below.

## 3. Literature Review

For this section, relevant discussion takes place under the following sub-headings: 1) overview of South African SMME effectiveness, efficiency and sustainability, 2) knowledge sharing as a component of knowledge management, 3) knowledge sharing in South African SMMEs.

### 3.1. Overview of South African SMME Effectiveness, Efficiency and Sustainability

In a South African dispensation, SMMEs are defined by the South African National Small Business Act No. 102 of 1996 as small, separate and distinct business entities, together with its branches and/or subsidiaries which are owned and/or managed by one or more owner(s), which conduct their respective business in any sector and/or sub-sector of the economy of South Africa (South Africa, 1996). Since the early-2000s, these business entities have progressively played a fundamental role in the stimulation of the national economy as they are responsible for employing approximately between 61% and 90% of the total national workforce, while also contributing up to 42% of the South African Gross Domestic Product (Africagrowth, 2010; Ladzani, 2010; Rankhumise, 2010; Booyens, 2011; Rankhumise and Tshabalala, 2011; Swart, 2010). When taking into consideration that no less than 90% of all operating South African business entities are regarded as SMMEs (Berry et al., 2002; Bell et al., 2004; Swart, 2010; Mouloungui, 2012; Amra et al., 2013; Chimucheka, 2014), clear tangent planes emerge as to why these business entities are deemed as the driving forces of economic growth in the country.

Albeit the above, South African SMMEs are known to have one of the worst sustainability rates in the world (Kabiawu, 2013; Wiese, 2014; Bruwer, 2016). This view is supported by previous research studies (Cant and Ligthelm, 2002; Van Eeden et al., 2003; SEDA, 2010; Adeniran and Johnston, 2011; Adcorp, 2012; Chimucheka, 2013; Adelakun, 2014; Mthabela, 2015), where it was found that these business entities have one of the highest failure rates in the world; up to 80% of South African SMMEs fail within their first five years of existence. This dispensation is often blamed on economic factors which relate to, *inter alia* government legislation, high interest rates, ineffective internal control, and negligence of management (Ahmad and Seet, 2009; Valdiserri and Wilson, 2010). These economic factors have a widespread effect on the economic environment, including the economic growth, of any country (Van Eeden et al., 2003; Radas and Božić, 2009; Jiang and Li, 2010; Herrington and Kew, 2013). The economic environment of a country refers to the state of a particular economy, taking into account its living conditions and socio-economic demographics (Guilhoto et al., 2002; Bruwer and Van Den Berg, 2017). Taking the above into consideration, it appears that the harsh economic environment and economic factors of South Africa adversely impinge on the overall

sustainability of South African SMMEs. Consequently, South African SMMEs need to manage the harsh South African economic environment to the best of their abilities to remain sustainable (Bruwer, 2016).

Stemming from the above, the inference can be made that the sustainability of South African SMMEs leaves much to be desired mainly since up to 80% of these entities fail after being in existence for only five years. Considering that KS may have influence on the sustainability of any firm, it is highly probable that the sustainability of South African SMMEs is weak because 1) they do not use KS initiatives, or 2) they make improper use of KS initiatives.

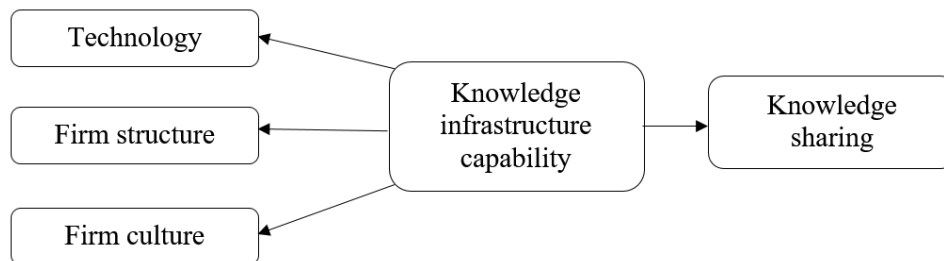
### 3.2. Knowledge Sharing as a Component of Knowledge Management

Over the past few years, KM has been a trending current topic (Feser and Proeger, 2015). This is evidenced by the fact that more and more firms are seeing the value of knowledge; attempting to set up KM systems and practices to effectively use knowledge to fortify their overall sustainability, efficiency and effectiveness (Nonaka and Toyama, 1995; McAdam and Reid 2000; Ipe, 2003; Robbins and Judge, 2009; Islam et al., 2015; Robertson, 2016) – including both large firms and smaller business firms (Wong, 2005; Maldonado-Guzmán et al., 2016).

As previously mentioned, KM has to do with the structured coordination of a firm's people/culture, processes and technology. The main objective of KM is to ensure vital information (knowledge) is properly identified, selected, organised, shared and published to help a firm to perform its operations and achieve its objectives (Gupta et al., 2000; Geisler and Wickramasinghe, 2009). Specifically the latter comprises of an array of aspects *inter alia* knowledge acquisition, knowledge accumulation, knowledge creation and knowledge protection. Among the core aspects is that of KS.

KS can be formally defined as the mutual exchange of knowledge among relevant stakeholders, in a firm, through providing insight (through guidance, sharing ideas, giving advice, etc.) with the main intent to enlighten them to achieve their own objectives to, in turn, allow for the objectives of the firm to be achieved by solving problems and/or creating solutions (Schwartz, 2006; Janus-Hiekkarranta, 2009; Becerra-Fernandez and Sabherwal, 2010).

According to previous research studies (Gold et al., 2001; Ho, 2009; Mills and Smith, 2011; Hamidi et al., 2012), KS is strongly influenced by a firm's technology, structure (organigram) and culture, also known as the firm's infrastructure capabilities (depicted in Figure 1). In order to fortify the understanding surrounding these aspects, they are briefly explained below:



**Figure 1. Influencers of knowledge sharing**  
Source: Adapted from Mills and Smith (2011)

- **Firm technology:** This refers to a firm's information technology infrastructure which supports its information system needs, while simultaneously facilitating KM. It combines data processing, storage, and communication technologies, as well as systems (computers, databases, devices, information, servers etc.) and processes that make it functional (Becerra-Fernandez and Sabherwal, 2010). The existence of firm technology is a necessary for successful knowledge exchange (Karlsen and Gottschalk, 2004) as it enables and facilitates interaction among stakeholders for sharing knowledge and establishing a connected virtual environment for successful knowledge exchange by permitting knowledge seekers to identify and communicate with knowledge sources.
- **Firm structure:** This determines the manner and extent to which responsibilities, roles and power are delegated, controlled, and coordinated, and in what way information flows between management levels. The hierarchical structure of a firm defines each employee's role within the firm and significantly affects with which each individual employee predominantly and regularly interacts, and share knowledge. Reporting relationships in firms influence the flow of data and information in addition to the nature of groups who make collected decisions, and subsequently affect the creation and sharing of knowledge (Becerra-Fernandez and Sabherwal, 2010). Hence, a firm's structure defines how employees and firm

activities are arranged and directed toward the achievement of firm goals, and determines how information flows between various levels.

- **Firm culture:** Firm culture is concerned with the norms, values and beliefs that guide the behaviour of firm members (Almahamid et al., 2010). It has to do with understanding the importance of KM practices, managing support for KM at all levels, incentives that reward KS, provide encouragement for interaction for the creation and sharing of knowledge (Becerra-Fernandez and Sabherwal, 2010). Firm culture is heavily influenced by trust and teamwork (Park et al., 2004), which is why where two elements are considered as the most essential elements of “firm culture” which influence KS (Hamidi et al., 2012). According to Schein (2004), a firm’s culture should be recognised as a key factor that can enhance the firm’s effectiveness and sustainability. Consequently, it can be deduced that culture is a set of joint attributes, attitudes, beliefs, philosophies, practices, principles, rituals and values that are shared by employees in the pursuit of a firm’s respective goals – providing its unique character.

Stemming from the above, it becomes apparent that the aforementioned three components will impact on KS in a firm. In fundamental nature, since if any one of these components is not present and/or conducive for employees to share knowledge in, it will adversely influence KS in a firm; evidently KM too. (Jasimuddin and Hasan, 2015; Tong et al., 2016). Ultimately, by having these three components in a firm, it may result in *inter alia* employee skill enhancement, the enhancement of employee productivity, and the efficiency of firm operations (Cong and Pandya 2003; Davenport, 2016; Natarajan and Bagwan, 2016).

### **3.3. Knowledge Management and Knowledge Sharing in South African SMMEs**

During the 1990s, KM was introduced to developed countries for the first time only (Abidi, 2001; Kaniki and Mphahlele, 2002). During this timeframe, South Africa went through an intensive reorganisation that occurred because of political change which evidently launched its re-emergence in the global economy as a new democracy and an emerging knowledge economy (Thornhill and Van Dijk, 2003). Only from the early-2000s onward, large South African firms started to make use of KM, but only to a limited extent (Kruger and Johnson, 2010). According to research conducted by Gaffoor (2008), the use of KM had a positive influence on these firms’ sustainability, efficiency and effectiveness, particularly in the sense that cultures of collaboration were cultivated, duplication of work was diminished, operational costs were minimised and service delivery improved.

After consulting an array of databases, it was found that limited literature existing on KM in South African SMMEs, with only two studies superficially making mention of individual KM measures used in these firms (Botha and Fouche, 2002; Botha 2004). It should however be noted that South Africa has past political history which is beyond the scope of this article, except for a few factors which are may have directly affected the adoption and utilisation of KM in South Africa. One such factor is the policy of affirmative action which according to Finestone and Snyman (2005) has the potential of empowering one group over the sanctioning of another. This action has an impact on job security and, consequently, leads to an unwillingness of workers to share their knowledge, in most cases. Another barrier to KM in South Africa is the question of language. In many cases, staff members are reluctant to share knowledge if they cannot understand ideas – having difficulty to convey their thoughts and insights (Prime, 1999).

Notwithstanding the aforementioned, in a South African SMME dispensation, many managers have started to become aware of the power of KS as a competitive necessity in recent times (Chan and Chow, 2008). This is specifically the case since more often than not, employees gain a wealth of knowledge while working at the firm and once they leave the firm (through retirement, transfer or leaving) their accumulated knowledge also leaves with them (Dodani and LaPorte, 2005). Unfortunately KS is not high on the priority of many South African SMMEs as a strategic competitive advantage (Mosham and Van Brakel, 2010). Stemming from the above, it becomes apparent that South African firms, particularly that of SMMEs do not make sound use of KS initiatives.

## **4. Conclusion**

In a South African dispensation, SMMEs are regarded as the drivers of the national economy. Unfortunately these firms are believed to have one of the worst sustainability rates in the world. This latter phenomenon, according to prior research, is greatly spurred by an array of economic factors which, in turn, adversely influence the economic environment in which these firms operate. It is evident that despite South African SMMEs’ key contribution to the national economy, approximately 75% (on average) of these firms fail after being in existence for only five years. Moreover, taking into account the socio-economic situation of

South Africa, many employees in South African firms are reluctant to share their knowledge to assure job security. The latter dispensation can however be overcome through the creation of a culture that inspires trust in firms, particularly that of SMMEs. Since KM approaches do not offer any reciprocal value to compensate for the time allocated for knowledge sharing, the views of management and/or employees are believed to view such initiatives as non-value adding in their respective firms.

#### **4.1. Managerial Implications**

The importance of KS, as a part of KM, was highlighted in this paper. In particular, since South African SMMEs make limited use of KS initiatives it becomes incumbent on managers to support the critical co-existence of both culture and trust in firm that support the willingness of employees to share knowledge with the intent to enhance the overall sustainability of their respective firms.

#### **4.2. Avenues for Further Research**

Taking into account the above, the following hypotheses were developed for further empirical testing:

H1: The sustainability of South African SMMEs is negatively influenced by their implemented KS initiatives.

H2: The sustainability of South African SMMEs is positively influenced by their implemented KS initiatives.

#### **References**

- Abidi, S.S.R., 2001. Knowledge management in healthcare: towards 'knowledge-driven' decision support services. *International Journal of Medical Informatics*, 63(1-2), pp.5-18.
- Adcorp., 2012. *New Business Start-ups Slump to All time Low* [online] Available at: [www.adcorp.co.za/News/Pages/Newbusinessstart-upsslumptoalltimelow.aspx](http://www.adcorp.co.za/News/Pages/Newbusinessstart-upsslumptoalltimelow.aspx) [Accessed on 25/04/2016].
- Adelakun, K.H., 2014. The role of business model innovation in the commercialization strategies in SMEs. Unpublished MSc in Economics and Business Management, University of Oulu, Finland.
- Adeniran, T. and Johnston, K., 2011. Investigating the Level of Internet capabilities of South African Small and Medium Enterprises in Changing Environments. *Annual Conference on World Wide Web Applications*, Cape Town, 10-13 September 2013.
- Africagrowth, 2010. *South African Economy and the Role of SMMEs and SMME awards* [online] Available at: [http://www.africagrowth.com/2010\\_SA\\_SMME\\_Proposal.pdf](http://www.africagrowth.com/2010_SA_SMME_Proposal.pdf) [Accessed on 21/04/2016].
- Ahmad, N.H. and Seet, P.S., 2009. Dissecting behaviours associated with business failure: A qualitative study of SME owners in Malaysia and Australia. *Asian Social Science*, 5(9), pp. 98-104.
- Alhaddi, H. 2015. Triple bottom line and sustainability: A literature review. *Business and Management Studies*, 1(2), pp. 6-10.
- Almahamid, S., Awward, A. and Mcadams, A., 2010. Effects of organizational agility and knowledge sharing on competitive advantage: an empirical study in Jordan. *International Journal of Management*, 27(3), pp. 387-579.
- Amra, R., Hlatshwayo, A. and McMillan, L., 2013. SMME employment in South Africa. *Biennial Conference of the Economic Society of South Africa*, Bloemfontein. 25-27 September 2013.
- Antonic, B. and Omerzel, D.G., 2008. Critical entrepreneur knowledge dimensions for the SME performance. *Industrial Management and Data Systems*, 108(9), pp. 1182-1199.
- Aslani, F., Mousakhani, M. and Aslani, A., 2012. Knowledge Sharing: A Survey, Assessment and Directions for Future Research: Individual Behavior Perspective. *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, 6(8), pp. 2025-2029.
- Awad, E. and Ghaziri, H., 2004. *Knowledge management*. New Jersey: Pearson Education Inc.
- Becerra-Fernandez, I. and Sabherwal, R., 2010. *Knowledge Management: Systems and Processes*. London: M.E. Sharpe.
- Bell, J., Crick, D. and Young, S., 2004. Small firm internationalization and business strategy an exploratory study of 'knowledge-intensive' and 'traditional' manufacturing firms in the UK. *International Small Business Journal*, 22(1), pp. 23-56.
- Berry, A., Von Blottnitz, M., Cassim, R., Kesper, A., Rajaratnam, B. and Van Seventer., 2002. *The economics of SMMEs in South Africa*. [Online] Available at: <http://www.tips.org.za/files/506.pdf> [Accessed on 10/02/2016].

- Booyens, I., 2011. Are Small, Medium- and Micro – Sized Enterprises Engines of Innovation? The reality in South Africa. *Science and Public Policy: Bree Tree Publishing Journal*, 3(1), pp. 67-78.
- Botha, D. F., 2004. Towards an instrument for surveying knowledge management practices. *South African Journal of Business Management*, 36(1), pp. 1-6.
- Botha, D.F. and Fouché, B., 2002. Knowledge management practices in the South African business sector: preliminary findings of a longitudinal study. *South African Journal of Business Management*, 33(2), pp. 13-19.
- Brown, J.S. and Duguid, P., 1991. Organizational learning and communities-of-practice: Toward a unified view of working, learning, and innovation. *Organization Science*, 2(1), pp. 40–57.
- Bruwer, J-P., 2016. *The relationship(s) between the managerial conduct and the internal control activities of South African fast moving consumer goods Small, Medium and Micro Enterprises*. Unpublished DTech: Internal Auditing thesis, Cape Peninsula University of Technology, Cape Town, South Africa.
- Bruwer, J-P. and Van Den Berg, A., 2017. The conduciveness of the South African economic environment and Small, Medium and Micro Enterprise sustainability: A Literature Review. *Expert Journal of Business and Management*, 5(1), pp. 1-12.
- Business Dictionary., 2017a. *Definition of Effectiveness* [online] Available at: <http://www.businessdictionary.com/definition/effectiveness.html> [Accessed on 18/05/2017].
- Business Dictionary., 2017b. *Definition of Efficiency* [online] Available at: <http://www.businessdictionary.com/definition/efficiency.html> [Accessed on 18/05/2017].
- Cant, M. and Ligthelm, A., 2002. Small business problems in the South African context: a proactive entrepreneurial approach. *7th Asia-Pacific Decisions Science Institute Conference*, Bangkok, Thailand, 24-27 July.
- Chan, S.L. and Chow, S.W., 2008. Social network, social trust and shared goals in organizational knowledge sharing. *Information and Management*, 45(1), pp. 458-465.
- Chen Yang, S. and Kiang Farn, C., 2009. Social capital, behavioral control, and tacit knowledge sharing - A multi-informant design. *International Journal of Information Management*, 29(1), pp. 210–218.
- Cheng Huang, C., 2009. Knowledge sharing and group cohesiveness on performance: An empirical study of technology R&D teams in Taiwan. *Technovation*, 29(1), pp. 786–797.
- Chimucheka, T., 2013. The impact of entrepreneurship education on the establishment and survival of small, micro and medium enterprises (SMMEs). *Journal of Economics*, 4(2), pp. 157-168.
- Cong, X. and Pandya, K.V., 2003. Issues of knowledge management in the public sector. *Electronic Journal of Knowledge Management*, 1(2), pp.25-33.
- Cummings, J.N., 2004. Work groups, structural diversity, and knowledge sharing in a global organization. *Management Science*, 50(3), pp. 352–364.
- Davenport, T., 2016. Personal knowledge management and knowledge worker capabilities. *Personal Knowledge Management*, 1(1), pp. 167-88.
- De Long, D. and Fahey, L., 2000. Diagnosing cultural barriers knowledge management. *Academy of Management Executive*, 14(1), pp. 113-127.
- Dodani, S. and LaPorte, P.E., 2005. Brain drain from developing countries: how can brain drain be converted into wisdom gain?. *Journal of the Royal Society of Medicine*, 98(1), pp. 487-491.
- Donate, M.J., De Pablo, J.D.S., Guadamillas, F. and González-Ramos, M.I., 2017. *The Role of Knowledge Management Strategies in Cooperation Agreements*, IGI Global.
- Du Plessis, T., 2011. Information and knowledge management at South African law firms. *Potchefstroom Electronic Law Journal*, 14(4), pp. 233-258.
- Dube, L. and Ngulube, P., 2012. Knowledge sharing in a multicultural environment: challenges and opportunities. *South African Journal of Libraries and Information Science*, 78(1), pp. 68-77.
- Earl, M., 2001. Knowledge management strategies: Toward a taxonomy. *Journal of Management Information Systems*, 18(1), pp. 215-233.
- Feser, D. and Proeger, T., 2015. *Knowledge-Intensive Business Services as Credence Goods - a Demand-Side Approach*. Center for European Governance and Economic Development Research, No. 232.
- Finestone, N. and Snyman, M.M.M., 2005. Corporate South Africa – making multicultural knowledge sharing work. *Journal of Knowledge Management*, 9(4), pp. 128-141.
- Forte, P. Hoojaghan, F.A. and Pool, J.K., 2016. Investigating the effect of organisational culture on knowledge management and performance: an empirical study in knowledge-based companies using the balanced scorecard. *International Journal of Management and Decision Making*, 15(2), pp. 308-355.



- Gaffoor, S. and Cloete, F., 2010. Knowledge management in local government: the case of Stellenbosch Municipality. *South African Journal of Information Management*, 12 (1). [online] Available at: <http://www.sajim.co.za> Accessed 25 September 2016.
- Gaffoor, S., 2008. *Assessing readiness for the implementation of knowledge management in local governments: The case of Stellenbosch Municipality*. Unpublished master's thesis. Stellenbosch: Stellenbosch University.
- Geisler, E. and Wickramasinghe, N., 2009. *Principles of Knowledge Management: Theories, Practice and Cases*. NY: Routledge.
- Goel, P., 2010. Triple bottom line reporting: An analytical approach for corporate sustainability. *Journal of Finance, Accounting, and Management*, 1(1), pp. 27-42.
- Gold, A.H., Malhotra, A. and Segars, A.H., 2001. Knowledge Management. An organisational capabilities perspective. *Journal of Management Information Systems*, 18(1), pp. 185-214.
- Guilhoto, J.J.M., Marjotta-Maistro, M.C. and Hewings, G.J.D., 2002. Economic landscapes: what are they? An application to the Brazilian economy and to sugar cane complex. In Hewings, G.J.D., Somis, M. and Boyce, D.E. (eds). *Trade, networks and hierarchies: modeling regional and interregional economies*. Berlin: Springer: 99-118.
- Gupta, B., Iyer, L.S. and Aronson, J.E., 2000. Knowledge management: Practices and challenges. *Industrial Management and Data Systems*, 100(1), pp. 17-21.
- Hamidi, M., Aziz, A., Sin, N. and Woods, P., 2012. Knowledge Management infrastructure: Preliminary Evidences of Malaysian banking practice. *Knowledge Management International Conference (KMICe)*. Johor Bahru, Malaysia.
- Herrington, M. and Kew, J., 2013. *Global entrepreneurship monitor – South African report*. Development Unit for New Enterprise, Faculty of Commerce, UCT, Cape Town.
- Hinds, P.J., Patterson, M. and Pfeffer, J., 2001. Bothered by abstraction: The effect of expertise on knowledge transfer and subsequent novice performance. *Journal of Applied Psychology*, 86(1), pp. 1232-1243.
- Hislop, D., 2005. *Knowledge management in organizations*. Oxford: Oxford University Press.
- Ho, C., 2009. The relationship between knowledge management enablers and performance. *Industrial Management and Data Systems*, 109(1), pp. 98-117.
- Hong, D., Suh, E. and Koo, C., 2011. Developing strategies for overcoming barriers to knowledge sharing based on conversational knowledge management: A case study of a financial company. *Expert Systems with Applications*, 38(12), pp.14417-14427.
- Inkpen, A.C. and Tsang, E.W.K., 2005. Social Capital, Networks, and Knowledge Transfer. *The Academy of Management Review*, 30(1), pp. 164-165.
- Ipe, M., 2003. Knowledge Sharing in Organisations: A conceptual Framework. *Human Resource Development Review*, 2(4), pp. 337-359.
- Islam, M.Z., Jasimuddin, S. and Hasan, I., 2015. Organisational culture, structure, technology infrastructure and knowledge sharing. *Vine*, 45(1), pp.67-88.
- Jackson, S.E., Chuang, C.-H., Harden, E.E., Jiang, Y. and Joseph, J.M., 2006. Toward developing human resource management systems for knowledge-intensive teamwork. *Research in personnel and human resources management*, Vol. 25. (pp. 27-70).
- Janus-Hiekkarranta, A., 2009. *Developing a comprehensive knowledge management approach for ICT-based professional services companies: a case study*. Master's Thesis, Helsinki School of Economics, Helsinki. [online] Available at: [http://hsepubl.lib.hse.fi/ethesis/pdf/12198/hse\\_ethesis\\_12198.pdf](http://hsepubl.lib.hse.fi/ethesis/pdf/12198/hse_ethesis_12198.pdf) [Accessed on 12/09/2016].
- Jiang, L. and Li, X., 2010. Discussions on the Improvement of the Internal Control in SMEs. *International Journal of Business and Management*, 5(9), pp. 214-216, April 2016.
- Kabiawu, O.O., 2013. *Designing a knowledge resource to address bounded rationality and satisficing for ICT decisions in small organisations*. Unpublished MCom (Information Systems) dissertation, University of Cape Town, South Africa
- Kaniki, A.M. and Mphahlele, K.M.E., 2002. Indigenous Knowledge for the benefit of all: can knowledge management principles be used effectively?. *South African Journal of Libraries and Information Science*, 68(1), pp. 1-15.
- Karsten, J. and Gottschalk, P., 2004. Factors affecting knowledge transfer in IT Projects. *Engineering Management Journal*, 21(8), pp. 571-582.

- Koenig, M., 2012. *What is KM? Knowledge Management Explained* [online] Available at: <http://www.kmworld.com/Articles/Editorial/What-Is-.../What-is-KM-Knowledge-Management-Explained-82405.aspx> [Accessed on 14/01/2017].
- Kruger, C.J.N and Johnson, R.D., 2010. Information management as an enabler of knowledge management maturity: A South African perspective. *International Journal of Information Management*, 30 (2010) 57–67
- Ladzani, W., 2010. Historical perspective of small business development initiatives in South Africa with special reference to Limpopo province. *Problems and Perspective in Management*, 8(3), pp. 68-79.
- Maldonado-Guzmán, G., Lopez-Torres, G., Garza-Reyes, J., Kumar, V. and Martinez-Covarrubias, J., 2016. Knowledge management as intellectual property: evidence from Mexican manufacturing SMEs. *Management Research Review*, 39(7), pp. 830-850.
- McAdam, R. and Reid, R., 2000. A comparison of public and private sector perceptions and use of knowledge management. *Journal of European Industrial Training*, 24(6), pp. 317-329.
- Mills, A. and Smith, T., 2011. Knowledge management and organisational performance: a decomposed view. *Journal of Knowledge Management*, 15(1), pp. 156-171.
- Mohsam, F. and Van Brakel, P.A., 2011. Information and knowledge sharing trends of small and medium-sized enterprises in the Western Cape, South Africa. *SA Journal of Information Management*, 13(1), pp. 1-10
- Mouloungui, S.M.K.E., 2012. *Assessing the impact of finance on small business development in Africa: the cases of South Africa and Gabon*. Unpublished MTech: Comparative Local Development dissertation, Tshwane University of Technology, Pretoria, South Africa.
- Mphahlele, M.Y., 2010. *Knowledge management practices in the South African public sector 2002 - 2008*. Unpublished Master's thesis, Stellenbosch University, Stellenbosch, South Africa.
- Mthabela, T.E., 2015. *Assessing the causal failures of emerging manufacturing SMEs in Johannesburg*. Research report, Faculty of Commerce, Law and Management, University of the Witwatersrand.
- Natarajan, G. and Bagwan, S., 2016. Knowledge Management Adoption in India. *Imperial Journal of Interdisciplinary Research*, 2(4), pp. 206-211.
- Nazari, E., Sarafranz, A. and Amini, S., 2016. The Effects of Key Factors of Knowledge Management Success on improving Customer Relationship Management (Case study: financial and credit institutions of Parsabad). *International Journal of Humanities and Cultural Studies*, 1(4), pp. 915-923.
- Nejati, M. and Nejati, M., 2008. Enabling Knowledge Sharing and Innovation within organizations. *Proceedings of the 1st Iranian International Knowledge Management Conference*, Tehran, Iran.
- Nejati, M., Md Shahbudin, A.S. and Amran, A.Z., 2010. Putting sustainability at the core of knowledge management performance evaluation system. *Journal of Organizational Knowledge Management*, 1(1), pp.1-13.
- Nonaka, I. and Takeuchi, H., 1995. *The knowledge creating company: How Japanese companies create the dynasties of innovation*. Oxford: Oxford University Press.
- Osman, C.A. and Ngah, R., 2016. Assessing sustainable competitive advantage in relation with intellectual capital, knowledge management and innovativeness in women-owned SMEs in Malaysia. *Journal of International Business, Economics and Entrepreneurship*, 1(1), pp. 1-15.
- Park, H., Ribiere, V. and Schulte, W., 2004. Critical attributes of organizational culture that promote knowledge management implementation success. *Journal of Knowledge Management*, 8(3), pp. 106-117.
- Paulin, D. and Suneson, K., 2012. Knowledge transfer, knowledge sharing and knowledge barriers – Three blurry terms in KM. *Electronic Journal of Knowledge Management*, 10(1), pp. 81-91.
- Pemberton, J.D. and Stonehouse, G.H., 2000. Organisational learning and knowledge assets – an essential partnership. *The Learning Organization*, 7(4), pp. 184-194.
- Prime, N., 1999. *Cross-cultural management in South Africa: Problems, obstacles, and agenda for companies* [online] Available at: <http://marketing.byu.edu/htmlpages/ccrs/proceedings99/prime.html> [Accessed on 10/01/2017].
- Pulakos, E.D., Dorsey, D.W. and Borman, W.C., 2003. Hiring for knowledge-based competition. In S. E. Jackson, M. A. Hitt and A.S. Denisi (Eds.). *Managing knowledge for sustained competitive advantage: Designing strategies for effective human resource management*. San Francisco: Jossey-Bass.
- Radas, S. and Božić, L., 2009. The antecedents of SME innovativeness in an emerging transition economy. *Technovation*, 29(6-7), pp. 438-450.

- Rankhumise, D.B. and Tshabalala, E.M., 2011. What Impact Do Economic Issues Have on the Sustainability of Small, Medium and Micro Entrepreneurs?. *Journal of Management Policy and Practice*, 12(1), pp. 108-114.
- Rankhumise, E.M., 2010. Hurdles and Triggers of rural SMEs in pursuance of their businesses. *Proceedings of the IAMB conference*, 28-30 January 2016. New Orleans: USA.
- Riege, A., 2005. Three-dozen knowledge-sharing barriers managers consider. *Journal of Knowledge Management*, 9(3), pp. 18-35.
- Robbins, S. P. and Judge, T. A., 2009. *Organizational Behavior*. New Jersey: Pearson Education, Inc.
- Robertson, S., 2016. An Application of Knowledge Management and Human Capital Valuation: The Case of Credit Unions. In Russ, M. (ed.) *Quantitative Multidisciplinary Approaches in Human Capital and Asset Management*, pp. 201-233.
- Romani, M., 2017. *Lessons Learnt Support System, Knowledge and Project Management*. Springer.
- Schein, E., 2004. *Organisational culture and leadership*. 3rd ed. New York: John Wiley and Sons.
- Schwartz, D., 2006. *Encyclopedia of Knowledge Management*. IGI Global.
- SEDA., 2010. *Seda technology programme incubators fast track SMME success* [online] <http://www.seda.org.za/Happening/LatestNews/PressReleases/Pages/Seda-technology-programme-incubators-fast-track-SMME-success.aspx>. [Accessed on 08/03/2016].
- South Africa, 1996. *National Small Business Act No. 102 of 1996*. Pretoria: Government Printers.
- Swart, M., 2010. Small businesses are set to lead economic recovery. *Professional Accountant (SAIPA)*, pp.10-12, October–November.
- Thornhill, C. and Van Dijk, H.G., 2003. The public service as a learning organisation. *Journal of Public Administration*, 38(3), pp. 339-354.
- Tong, C., Tak, W. and Wong, A., 2016. The impact of Knowledge Sharing on the Relationship between Organisational culture and Job Satisfaction: The Perception of Information Communication and Technology (ICT) Practitioners in Hong Kong. *International Journal of Human Resources Studies*, 5(1), pp. 19-47.
- Valdiserri, G.A. and Wilson, J.L., 2010. The study of leadership in small business organizations: Impact on profitability and organizational success. *The Entrepreneurial Executive*, 15(1), pp. 47-71.
- Van den Hooff, B. and De Ridder, J.A., 2004. Knowledge sharing in context: the influence of organizational commitment, communication climate and CMC use on knowledge sharing. *Journal of Knowledge Management*, 8(6), pp. 117-130.
- Van Eeden, S., Viviers, S. and Venter, D., 2003. A comparative study of selected problems encountered by small businesses in the Nelson Mandela, Cape Town and Egoli metropolises. *Management Dynamics: Journal of the Southern African Institute for Management Scientists*, 12(3), pp. 13-23.
- Wang, S and Noe, A., 2010. Knowledge Sharing: A review and directions for future research. *Human Resource Management Review*, 2(2), pp. 115-131.
- Wang, Y. and Wang, Y., 2016. Determinants of firms' knowledge management system implementation: An empirical study. *Computers in Human Behaviour*, 64(1), pp. 829-842.
- Wiese, J.S., 2014. *Factors determining the sustainability of selected small and medium-sized enterprises*. Unpublished MBA dissertation, North-West University, Potchefstroom, South Africa.
- Wong, K., 2005. Critical success factors for implementing knowledge management in small and medium enterprises. *Industrial Management and Data Systems*, 105(3), pp. 261-279.
- Zack, M., McKeen, J. and Singh, S., 2009. Knowledge Management and Organizational Performance: an Exploratory Analysis. *Journal of Knowledge Management*, 13(6), pp. 392-409.
- Zieba, M., Bolisani, E. and Scarso, E., 2016. Emergent approach to knowledge management by small companies: multiple case-study research. *Journal of Knowledge Management*, 20(2), pp. 292-307.
- Pojasek, R.B., 2010. *Strategies for Sustainability Management: Developing a "Positive" Sustainability Strategy*. [online] Available at: <http://isites.harvard.edu/fs/docs/icb.topic717020.files/PositiveStrategyNarrative.pdf> [Accessed on 01/05/2017].

