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Accounting Information Systems – A Value-Adding Phenomenon or a Mere Trend? The Situation in Small and Medium Financial Service Organizations in the Cape Metropolis

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Small Medium and Micro Enterprises (SMMEs) are of grave importance to the South African economy as they are legally obliged to support in the alleviation of poverty, the diminution of unemployment and the equal dissemination of wealth throughout the country. Despite the importance of these entities, prior research suggests that these entities are not mainly sustainable as between 70% and 80% of South African SMMEs fail after being in operation for five years. More often than not the latter dispensation is believed to stem from the realization of risks which, in turn, is cultivated by the ineffective management of economic factors. Among the economic factors which have a direct influence on the existence of South African SMMEs is the effectiveness of accounting information system(s). Here it is argued that a small organization is more likely to attain sustainability if its accounting information system(s) provide relevant, reliable and recent information, to management, for better business-related decision making. From a SMME dispensation, prior research justifies that accounting information systems can be regarded as critical 'decision-making-tools'. In fundamental nature, this research study was conducted to determine the actual value which utilized accounting information systems add to South African SMMEs. This research study was descriptive in nature and fell within the positivistic research paradigm. Data were purposively collected from 32 SMME owners and/or managers, in the Cape Metropolis, who had to adhere to strict delineation criteria. It was found that although SMMEs have informally implemented accounting information systems, they add extreme value to SMME leaders when having to make sound business decisions.

Keywords: *SMMEs, accounting information systems, accounting*

JEL code: *G30*

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1. Introduction

During the course of 1996 the South African government signed the National Small Business Act No. 102 into law whereby Small Medium and Micro Enterprises (SMMEs) were defined as follows:

> "[SMMEs are] *separate and distinct business entities, including cooperative enterprises and non-governmental organizations, managed by one owner or more which, including its branches or subsidiaries, if any, are predominantly carried on in any sector or subsector of the economy*" (South Africa, 1996, pp. 2).

In the same Act, SMMEs are classified as micro entities, very small entities, small entities or medium entities (Ngubane, et al., 2015, pp. 384) and are demarcated through means of: 1) the number of full-time employees employed, 2) the annual turnover made, and 3) the fixed-asset value of SMMEs. The latter is condensed in Table 1 below:

***Table 1**: The classification of SMME size in the financial services industry*

Size of entity	Number of full-time employees employed	Annual turnover made	Fixed asset value (excluding fixed property)
Micro	Between 0 and 5	Between R0 and R150 000	Between R0 and R100 000
Very small	Between 6 and 10	Between R150 001 and R2 000 000	Between R100 001 and R400 000
Small	Between 11 and 50	Between R2 000 001 and R10 000 000	Between R400 001 and R2 000 000
Medium	Between 51 and 100	Between R10 000 001 and R20 000 000	Between R2 000 001 and R4 000 000

Source: South Africa, 1996, pp. 16

Regardless of their size, South African SMMEs are required, by law, to add value to the national economy by decreasing the unemployment rate, decreasing poverty and help spurring the national economy as a whole (Gordon, et al., 2014, pp. 38). The aforementioned is supported by research conducted by Abor and Quartey (2010) who found that South African SMMEs contribute up to 57% of the national Gross Domestic Product (Salie, et al., 2014, pp. 26) while simultaneously providing up to 80% of all local employment opportunities in the country (Swart, 2011, pp. 10). Apart from adding value to the national economy, South African SMMEs also need to strive towards sustainability at the same time.

The term "sustainability" can be viewed as the long-term continuation of an organization through means of attaining relevant business objectives (Buys, 2012, pp. 10). These business objectives, in turn, can comprise of a mixture of "economic objectives", "environmental objectives" and "social objectives". The latter is depicted in Figure 1 below for the sake of clarity:

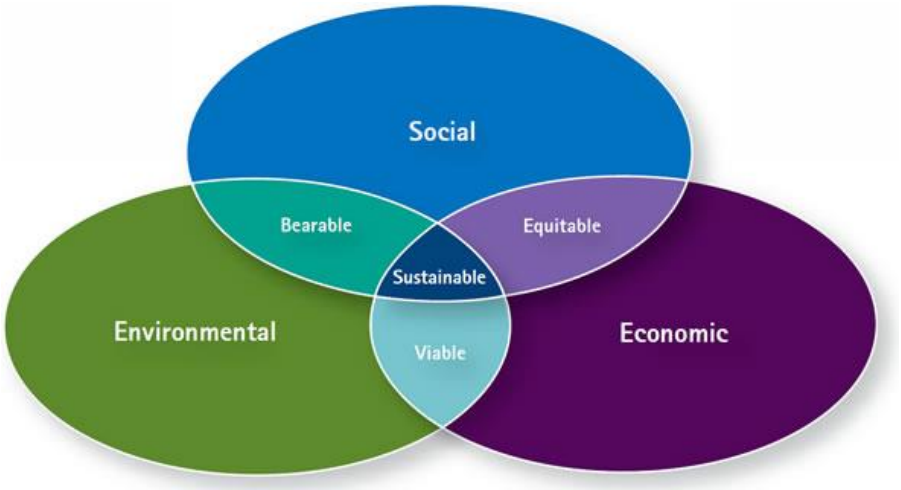

***Figure 1**: The depiction of the term "sustainability"*
Source: Canadian Government, 2010

Notwithstanding the above, Fatoki and Smit (2011, pp. 1413) aver that South African entities have great difficulties to achieve their legally imposed objectives to a great extent as they struggle to become sustainable (in their personal capacity). This sentiment is further supported when taking into consideration the astronomical failure rate of South African SMMEs (Ngary, et al., 2014, pp. 910).

Prior research shows that since 2010 approximately 70% of South African SMMEs have had to close down after being in operation for a maximum of 5 years (Siwangaza, et al., 2014, pp. 165; Fatoki, 2014, pp. 72). In addition Mazanai and Fatoki (2011, pp. 208) posit that close to 75% South African SMMEs cease to exist after operating for only 42 months. Hence it is of no surprise that the current SMME failure rate, from a South African dispensation, is regarded as one of the highest in the world (Olawale and Garwe, 2010, pp. 730).

More often than not the SMME failure rate, regardless of the country in which these entities operate, is 'blamed' on the realization of unmanaged risks in and around SMMEs (Smit & Watkins, 2011, pp. 6328) – i.e. events which may or may not occur that, if realized, may adversely influence the attainment of an organization's objectives in the nearby future (Smit, 2012, pp. 45-46). In quintessence, risks are cultivated by the existence of economic factors which, in most cases, adversely influence the economic objectives of organizations (Bruwer, et al., 2013, pp. 1003). Economic factors are generally categorized into two distinct groups, namely that of macro economic factors and micro economic factors (Gordon, et al., 2014, pp. 39; Bruwer, 2010, pp. 8-9; Ngary, et al., 2014, pp. 912).

- **Micro economic factors**: These factors cultivate in and around an organization and can be controlled to a large extent by an organization's management. Examples of micro economic factors include the competence of staff, the quantity of internal financial resources, the morale of staff, the infrastructure of an organization, the financial position of an organization, and the financial performance of an organization, just to mention a few.
- **Macro economic factors**: Such factors cultivate from outside an organization and can only be controlled so some extent by an organization's management. Examples of macro economic factors include laws and regulations, taxation rates, inflation rates, interest rates, crime, exchange rates, and supply and demand trends, among other.

Another economic factor which is critical to the overall sustainability of SMMEs is the effectiveness of its relevant accounting information system(s). Prior research suggests that accounting information systems that provide relevant, reliable and recent information to an organization's management will allow such an organization to be more sustainable (Allah, et al., 2013, pp. 262). Hence it is believed that accounting information systems that are deployed inside an organization should add value to the organization, ultimately resulting in the organization to become more sustainable.

2. Literature Review

With the introduction in mind, the literature review places focus on an array of aspects under the following three headings: 1) accounting information systems defined, 2) the use of accounting information systems and integration into business processes, 3) accounting information systems in SMMEs, and 4) the value of accounting information systems in SMMEs:

2.1. Accounting Information Systems Defined

Accounting information systems refer to manual systems, computerized systems or a hybrid of manual and computerized systems that are used in the recording and reporting of business transactions, as well as generating reports and financial statements to aid in the planning and controlling of a business' operations (Gutierrez, et al., 2011, pp. 26). Taking technological advances into account, accounting information systems today refer primarily to computerized systems. In a more recent dispensation Tokic, et al. (2011, pp. 106) are of the opinion that accounting information systems can be defined as the sum of equipment, people, computer programs and stored data (resources), which includes communications and network connections along with organizational procedures, that enables the collection, sorting, recording, summarizing and storing of data and information. Ultimately accounting information systems are of paramount importance in the preparation and presentation of the accounting related information to relevant users thereof. The view above is substantiated by Salehi et al. (2010, pp. 187) who note that accounting information systems are primarily responsible for collecting, capturing, processing, storing and reporting data and information. Hence, accounting information systems can be viewed as tools which assist management of organizations to manage and control organizational economic activities which occur in and around the relevant organization (Dalcı & Tanis, 2011, pp. 47; Grande, et al., 2011, pp. 26; Soudani, 2012, pp. 136).

Generally speaking, accounting information systems are categorized into four 'sub-systems' (Xu, 2003, pp. 18). These sub-systems are briefly elaborated upon below:

- **The transaction processing system**: This system is directly responsible for the recording daily organizational operations (transactions) by means of capturing, storing, retrieving and processing business events and generating information and supporting documentation for the organization.
- **The general ledger/financial reporting system**: This system helps produce financial statements, tax returns and other reports, as required by legislation. In core, this system is built on the foundation which comprises of the transaction processing system.
- **The fixed asset system**: This system is responsible for handling transactions related to acquiring, maintaining and disposing fixed assets – on which the general ledger/financial reporting system is built on too.
- **The management reporting system**: This system's main priority is to provide applicable information, comprising of the financial performance and the financial position of the organsiation, to management in order to make relevant business decisions. Here, the general ledger/financial reporting system is required as foundation.

Gelinas, et al. (2011, pp. xv) affirm the composition of the 'sub-systems' of accounting information systems. From an 'information technology' perspective, an accounting information system should comprise of various functions, namely: 1) collecting information, 2) providing information, and 3) adjusting/controlling information. The latter is graphically depicted in Figure 2 below.

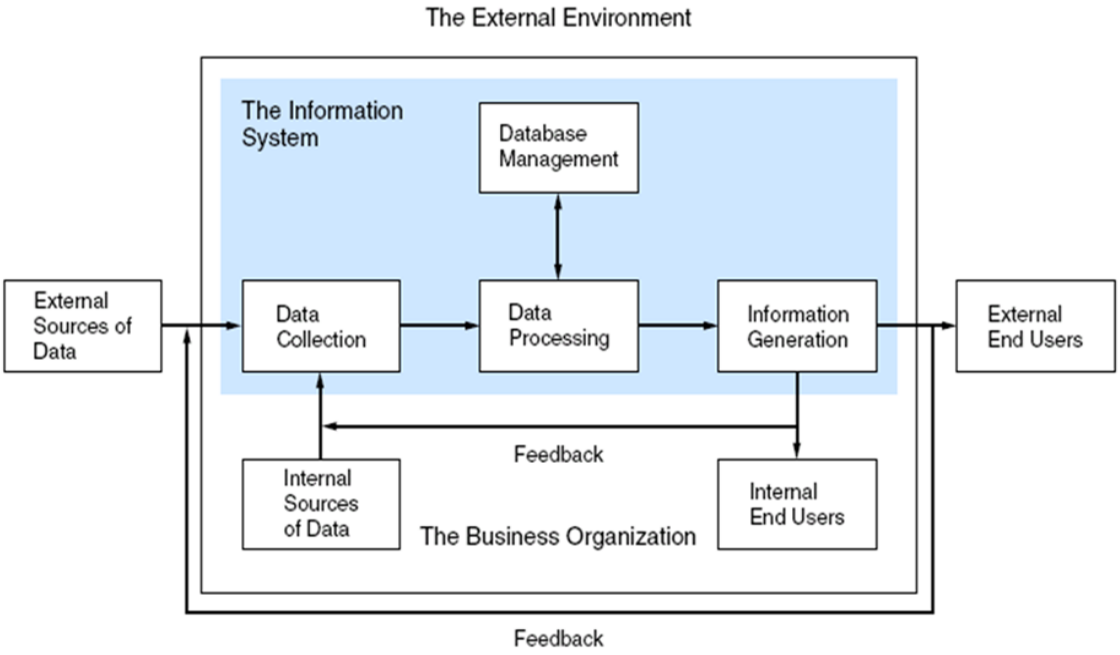

Figure 2: *Functions of a generic accounting information system*
Source: Hall, 2012, pp. 9

2.2. The Use of Accounting Information Systems and Integration into Business Processes

With the rapid development in technological changes Soudani (2012, pp. 136) is of the opinion that accounting information systems, for any organization, is regarded as 'non-negotiable necessity' (Grande, et al., 2011, pp. 35). The latter is particularly the case since accounting information systems provide valuable information pertaining to decision-making to organizational stakeholders across all industries (Maseko & Manyani, 2011, pp. 1). More often than not, the various uses of accounting information systems include, but do not limit to (Hall, 2008, pp. 38):

- Produce external reports (used by external stakeholders).
- Provide internal reports (used by internal stakeholders).
- Provide support pertaining to routine activities.
- Provide decision making support.
- Aid in planning activities and controlling activities.

- Aid in the implementation of sound internal controls.

In addition to the above Grande et al. (2011, pp. 27) make mention that accounting information systems are also used for transaction tracking, analyzing of reporting data (internal and external data), producing of financial statements and the analysis of trends (budgeting and forecasting). Therefore it can be argued that accounting information systems should be designed an 'assurance-providing-measure' in relation to the accomplishment of economic objectives (i.e. profitability, liquidity, solvency and efficiency). For this reason Soudani (2012, pp. 137) avers that the optimal use of accounting information systems, by organizational management, should result in an improved adaptation to a changing environment and improved management of arm's length transactions. By combining applicable methodologies, control techniques and a sound accounting information system, it will cultivate in the enhancement of decision making to be made by decision-makers.

Notwithstanding the above Monk and Wagner (2009, pp. 23) share the view that accounting information systems should be custom made for smaller organizations. Justification for this sentiment is that by doing so, it will improve their operating efficiency and allow for a more 'cost-saving-approach' to operations. The most simplistic manner in which this can be done is by recording all operational transaction in a common database that, in turn, is used by relevant users throughout the organization. As a result, business decisions can then be based purely on performance indicators derived from the data in the communal database. Regardless of the complexity of accounting information systems, a well-designed accounting information system should assist organizational management in processing and producing reliable, timeous, prudent, useful, comparable, relevant and valid financial information to make sound business decisions on (Fadhil & Fadhil, 2011, pp. 21; Gwangwava, et al., 2012, pp. 1129; Tóth, 2012, pp. 93; Hall, 2012, pp.12; Stanković, et al., 2012, pp. 660). To effectively achieve the above, accounting information systems can be integrated into internal business processes and/or external information systems (Butkevičius, 2009, pp. 150). This is expanded on below:

- **Integration of accounting information systems with the internal business processes**: Due to the fact that majority of organizations prefer to automate and improve business processes (Juozapavičius, et al., 2009, pp. 107) it is vital that financial reports are generated as close to real-time as possible. As such, relevant information on sales made, human resource management, quality control, contract management, documentation management, among other, can be accessed which will, in turn, provide relevant users with applicable decision making information.
- **Integration of accounting information systems with external information systems**: By following this route, the integration of accounting information systems with external information systems can be analyzed in the context of business models - unique configuration(s) of elements comprising the organization's goals, processes, technologies and structure (Osterwalder 2004, pp. 25). This approach will enable enhanced value for stakeholders and higher probable gains in relevant market segments.

2.3. Accounting Information Systems in SMMEs

A significant contributor to how well businesses perform, in a financial manner, is the relevance and timeliness of information influencing the quality of decision making. In quintessence, access to relevant and timeous information is best achieved by embedding technologies within systems which, in turn, generates the required information (Butkevičius, 2009, pp. 144). Organizations should therefore adopt and embed technology within their operations which should provide for improvement in business processes. Regardless of an organization's size, organizations and their respective management should coordinate and control applicable business activities (Chen & Wu, 2005, pp. 35), especially since all organizations should be encouraged to use integrated technologies to support their respective business through pressure exerted on them by relevant stakeholders (Chen & Wu, 2005, pp. 3).

To remain competitive, and ultimately to ensure business sustainability, SMMEs, in particular, should become profitable through quality competitiveness and price competitiveness of products sold and/or services rendered (Ismail, et al., 2003, pp. 21). This is especially the case due to technological changes taking place in the globalized trading environment – as a result of their size, SMMEs can arguably remain competitive and counter business failure by being innovative in their approach to technology, which includes the use of accounting information systems. With the above in mind however, Chiware (2008, pp. 1) posits that one of the major constraint to the development and growth of SMMEs can be attributed to the insufficient access to business information. This is quite disconcerting, taking into consideration that research conducted by Modiba (2010, pp. 3) found that the most important resource for an organization is access to its information as it enables

decision makers to make economic decisions which, in turn, will influence the overall well-being of the organization (Ismail & King, 2005, pp. 241; Shokane, 2001, pp. 26; Stanković, et al., 2012, pp. 660).

2.4. The Value of Accounting Information Systems in SMMEs

Marcella and Illingworth (2012) state that the effective use of information are beneficial to any organization, regardless of its size, as it reduces administrative costs, increase the effective collaboration with external parties and improve customer service through greater efficiency. Furthermore Namani (2009, pp. 3) states that SMMEs need effective information systems to support and deliver information for decision making purposes (especially economic decisions which take financial information into account). Such an information system include technologies that support decision making, provide effective interface between users and computer technology and provide information to management to improve the daily business operations.

According to Wang and Huynh (2013, pp. 13-21) computerized (technological) accounting information systems should be designed to automate and integrate all business operations. The value that such accounting systems add, according to Wang & Huynh (2013, pp. 13-21) and Agnes (2011, pp. 6) include, but do not limit to:

- Better cost-effectiveness relating to the planning of business processes.
- Better cost-effectiveness relating to the organizing of business processes.
- Better cost-effectiveness relating to the controlling of business processes.
- Better cost-effectiveness relating to the leading of business processes.
- Enhanced timeous processing of financial information for decision making.
- Enhanced timeous analyzing of financial information for decision making.
- Enhanced accuracy of financial information for decision making.
- Allow for a 'bigger picture' overview of business processes.
- Better access to critical performance indicator(s) information for decision making.
- Enhanced processing of large volumes of information with great precision.
- Enhanced analyzing of large volumes of information with great speed.

Albeit the above Hall (2015, pp. 3-30) makes mention that accounting information systems can contribute to the improvement of information management and knowledge management within the organization - particularly as transaction costs are reduced, while speed and reliability of transactions for both business-to-business (B2B) and business to-consumer (B2C) transactions are improved. Sam, et al. (2012, pp. 13) add that computerized accounting information systems provide: 1) accurate and comprehensive results of operations, 2) allow for quick comparisons between current and previous years data, 3) generate financial statements to be used by an array of users, and 4) disclose record keeping error, waste, theft, and employee misconduct (Nawaz, 2012, pp. 21)

Purely from a SMME perspective, the main advantages derived from the optimal use of accounting information systems include the improved adaptation to changing environments (economic environments mostly), improved management of arm's length transactions, and the providence of a higher degree of competitiveness (Grande et al., 2011, pp. 27). In addition to the latter, the effective use of accounting information systems can provide SMME leaders (i.e. owners and/or managers) with important information to monitor and control both long-term and short-term matters which may include profitability, solvency, liquidity and efficiency (Ismail & King, 2007, pp. 241; Alia, et al., 2012, pp. 256; Bruwer & Holtzhausen, 2015, pp. 124-128). Despite the theoretical perspective above, prior applied research as conducted by Ismail and King (2005, pp. 246), Sajady, et al. (2008), Kharuddin, et al. (2010), Kouser, et al. (2011) and Grande et al. (2011) show that accounting information systems, if implemented correctly, does improve an organization's performance, profitability, liquidity and operational efficiency.

3. Research Design and Methodology

Based on the work of Collis and Hussey (2009) and Leedy and Ormrod (2010), any research study can be designed in terms of its purpose, process, logic, and outcome. In addition, the design of any research study is physically executed through means of proper methodological procedures. For the sake of this article the research design and research methodology will be discussed under separate headings.

3.1. Research Design

The research design that was evident for this study was as follows:

- **Purpose**: This research study was regarded as descriptive research. The main intention for conducting this research study was to describe a certain problem at hand – i.e. whether accounting information systems deployed by SMMEs actually add value towards the sustainability of these entities.
- **Process**: This research study was deemed as positivistic research. For this research study, quantitative data were gleaned to help solve and/or mitigate an identified research problem. This was done purely through means of deploying a questionnaire-tool.
- **Logic**: This research study followed deductive reasoning as the initial perception of the author stemmed from existing literature, which was further tested through means of empirical research.
- **Outcome**: This research study was regarded as applied in nature as this study provides recommendations as to how to possibly mitigate and/or solve an identified research problem.

3.2. Research Methodology

The research methodology that was deployed for this study was survey research. In core, survey research was used to obtain the perceptions of respondents, which are not easily measurable by making use of physical observations only, in a textual manner. To do so effectively a questionnaire-tool was used which consisted of 10 major closed-ended questions. A total of 4 major questions had 58 sub-questions, all of which took the form of 5 point Likert-scale questions.

In order to obtain responses from a representative sample size, a non-random sampling method was used (purposive-convenient sampling). This was especially the case since all targeted respondents had to adhere to strict delineation criteria. In a fundamental nature, 50 SMME leaders (owners and/or managers) were approached to complete the relevant questionnaire, of which only 40 completed it. Of the 40 completed questionnaires, only 32 responses were valid as all respondents had to adhere to strict delineation criteria. The delineation criteria are shown below:

<u>Respondent delineation:</u>

- All respondents had to be SMME leaders (owners and/or managers)
- All respondents had to have at between 1 and 8 years of experience as owners and/or managers.
- All respondents should have been actively involved in their respective SMMEs.

<u>SMME delineation:</u>

- All SMMEs should have employed between 11 and 100 employees
- All SMMEs should have been regarded as financial service providing businesses.
- All SMMEs should have been regarded as non-franchised organizations.
- All SMMEs should have adhered to the definition of a "SMME" as per the Small Business Act No. 102 of 1996.
- All SMMEs should have operated within the perimeter of the Northern Suburbs of the Cape Metropolis.
- All SMMEs should have been regarded as sole traders or partnerships.
- All SMMEs should have been in existence for at between 1 and 10 years
- All SMMEs should have made use of at least one accounting information system (formal or informal).

3.3. Limitations

It is important to note that this research study could not be broadened beyond its current scope (refer to the geographical delineation) due to time constraints and money constrains. The authors had no formal budget to conduct this research study as it was self-funded, while the authors only had 4 weeks at their disposal to collect data pertaining to this research study.

4. Findings and Discussions

The findings made from the analyzed data are both stated and discussed below under the following headings: 1) delineation criteria, 2) accounting information systems used by respondents, 3) accounting

information used by respondents, and 4) the value of accounting information systems as a decision making tool.

4.1. Delineation Criteria

As previously mentioned, all respondents had to adhere to a strict set of delineation criteria before their responses were regarded as valid. A total of 32 SMMEs owned and/or managed by respondents were regarded as non-franchised sole traders or partnerships, operating in the financial service providing organizations, all of which were situated in the Northern Suburbs of the Cape Metropolis (56.25% were situated in Bellville, 15.63% were situated in Durbanville, 9.37% were situated in Goodwood, 9.37% were situated in Parow and 9.38% were situated in Tyger Valley).

When respondents were asked what position they held in their respective SMMEs, a total of 21.88% of respondents indicated that they were owners, while 65.63% of respondents indicated that they were managers. The remaining 12.5% of respondents indicated that they were owner-managers of their respective SMMEs. In addition, respondents were also asked how long they have been fulfilling the role of owners and/or managers in their respective SMMEs. A summary of responses received are shown in Table 2 below:

***Table 2**: The number of years that respondents have been owners and/or managers in their respective SMMEs*

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Number of years in existence	1	3	9.38	9.38	9.38
	2	8	25.00	25.00	34.38
	3	5	15.63	15.63	50.00
	4	4	12.50	12.50	62.50
	5	6	18.75	18.75	81.25
	6	3	9.38	9.38	90.63
	7	1	3.13	3.13	93.75
	8	2	6.25	6.25	100.00
Total		32	100.0	100.0	

Source: Authors' fieldwork, 2015

From the table above it is evident that majority of respondents (71.88%) had between 2 to 5 years of experience as owners and/or managers with a calculated mean of 3.78 years.

To have a better understanding as to the size of respondents' SMMEs (and to test whether SMMEs adhere to the definition of the Small Business Act No. 102 of 1996), respondents were asked to indicate the number of full-time employees they employ. The results of the latter question are shown in Table 3 below:

***Table 3**: The number of full-time employees employed by respondents' SMMEs*

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Number of full-time employees employed	11	2	6.25	6.25	6.25
	12	1	3.13	3.13	9.38
	20	5	15.63	15.63	25.00
	25	4	12.50	12.50	37.50
	26	1	3.13	3.13	40.63
	30	2	6.25	6.25	46.88
	35	1	3.13	3.13	50.00
	40	1	3.13	3.13	53.13
	41	1	3.13	3.13	56.25
	50	5	15.63	15.63	71.88
	55	2	6.25	6.25	78.13
	60	3	9.38	9.38	87.50
	70	1	3.13	3.13	90.63
	100	3	9.38	9.38	100.00
Total		32	100.0	100.0	

Source: Authors' fieldwork, 2015

Stemming from the data in Table 3 above, it is clear that all SMMEs adhered to the definition of a SMME as per the Small Business Act No. 102 of 1996 as all respondents employed between 10 and 100 employees on a full-time basis. The calculated mean for the statistics above amounted to 42.03. Furthermore, based on the definition of a SMME, the statistics in 71.88% of SMMEs were regarded as "Small Enterprises"

(employed between 11 and 50 full-time employees) while the remaining 28.12% of SMMEs were regarded as "Medium Enterprises" (employed between 51 and 100 full-time employees).

Lastly, respondents were asked to indicate how long their respective SMMEs have been in existence. The results show that 56.25% of SMMEs existed between 1 and 3 years, while 31.26% of SMMEs existed between 4 and 6 years, and the remaining 12.49% of SMMEs existed between 7 and 10 years. In terms of averages, the calculated mean score for the latter statistics amounted to 3.69 years.

In fundamental nature, it can be argued that the average respondent was deemed as a manager of a small, non-franchised financial service providing business, in the form of a sole trader or partnership, while situated in Bellville, with an average of 3.78 years of experience. Furthermore, the respective "Small Enterprise" employed an average of 42.03 employees on a full-time basis while having been in existence for an average of 3.69 years.

4.2. Accounting information systems used by respondents

Since all respondents' SMMEs should have made use of at least one accounting information system, respondents were asked to provide insight as to the accounting information system(s) that is used in their respective SMMEs. To do so, respondents had to make use of a 5 point likert scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree) to rate 10 statements starting with the following sentence: "In my business, the following accounting information system is used …" A summary of the responses are shown in Table 4 below:

Table 4. *The accounting information system(s) used by SMMEs*

Accounting information system	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Mean	Std Dev
Freshbooks	100%	-	-	-	-	1	0.00
Kashoo	90.63%	9.38%	-	-	-	1.09	0.30
Outright	90.63%	9.38%	-	-	-	1.09	0.30
Quick Books	90.63%	9.38%	-	-	-	1.09	0.30
SAP	90.63%	9.38%	-	-	-	1.09	0.30
SMEasy	90.63%	9.38%	-	-	-	1.09	0.30
MS Access	71.88%	21.88%	-	3.13%	3.13%	1.44	0.91
Pastel	50%	12.5%	-	3.13%	34.38%	2.59	1.86
Manual (by hand)	28.13%	6.25%	6.25%	40.63%	18.75%	3.16	1.55
MS Excel	15.63%	3.13%	-	21.88%	59.38%	4.06	1.48
Average	71.88%	9.07%	0.63%	6.88%	11.56%	1.77	0.73

Source: Authors' fieldwork, 2015

From the statistics evident in Table 4 the two most used accounting information systems were "MS Excel" (used 81.2% of the time) and "Manual (by hand)" (used 63.2% of the time). Though their overall utilization are both favorable, the latter accounting information systems are very informal. Although "Pastel" was the third most utilized accounting information system, a formal accounting information system, it was only used 51.8% of the time. All other listed accounting information systems were not used by SMMEs to a great extent.

As such, one can infer that possible reasons for the latter include: 1) formal accounting information systems are too expensive to implement by SMMEs, 2) respondents have are not familiar with formal accounting information systems that are on the market, 3) respondents are not 'skilled enough' to make proper use of formal accounting information systems, and/or 4) there is no 'need' for respondents to make use of formal accounting information systems.

4.3. Accounting Information used by Respondents

To formulate a better understanding as to 'why' respondents mostly make use of informal accounting information systems, respondents were asked to rate 22 statements on a 5 point likert scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree), starting with the following sentence: "I require the following financial instrument when making business decisions …" The findings made are shown in Table 5 below:

Table 5. *Financial instruments used by respondents to make business decisions*

Financial instrument	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Mean	Std Dev
Balance sheet	21.86%	34.38%	-	15.63%	28.13%	2.94	1.61
Creditors allowance journal	25.00%	21.88%	3.13%	21.88%	28.11%	3.06	1.63
Debtors allowance journal	25.00%	21.88%	3.13%	21.86%	28.13%	3.06	1.63
Trial balance	25.00%	21.87%	6.25%	12.50%	34.38%	3.09	1.67
Operational budget	9.38%	37.50%	3.13%	9.38%	40.61%	3.34	1.56
Purchases budget	9.38%	34.38%	3.13%	9.38%	43.73%	3.44	1.56
Sales budget	9.38%	34.38%	3.13%	9.38%	43.73%	3.44	1.56
Master budget	6.25%	34.38%	9.38%	3.13%	46.86%	3.50	1.52
Petty cash journal	3.13%	37.50%	-	18.75%	40.62%	3.56	1.44
Debtors reconciliation statement	15.63%	18.75%	-	15.62%	50%	3.66	1.62
Creditors reconciliation statement	6.25%	28.13%	-	18.74%	46.88%	3.72	1.46
Statement of changes in equity	12.50%	12.50%	3.13%	18.74%	53.13%	3.88	1.50
Bank reconciliation statement	6.24%	18.75%	3.13%	21.88%	50%	3.91	1.38
Creditors journal	9.38%	9.38%	-	18.74%	62.50%	4.16	1.37
Debtors journal	9.38%	9.38%	-	18.74%	62.50%	4.16	1.37
General journal	9.38%	9.38%	-	3.13%	78.11%	4.31	1.40
Cash flow statement	-	9.37%	-	28.13%	62.50%	4.44	0.91
Cash payments journal	3.13%	-	3.13%	28.13%	65.61%	4.53	0.84
Cash receipts journal	3.13%	-	3.13%	28.13%	65.61%	4.53	0.84
Income statement	-	3.13%	3.13%	21.86%	71.88%	4.63	0.71
Cash flow budget	-	-	3.13%	18.75%	78.12%	4.75	0.51
Bank statement	-	-	-	-	100.00%	5.00	0.00
Average	9.52%	18.04%	2.28%	16.48%	53.69%	3.87	1.28

Source: Authors' fieldwork, 2015

From the statistics shown in Table 5 above it is clear that respondents, on average, made use of 'cash measurement instruments' more than any other financial instrument. In particular, the top 10 financial instruments used by respondents were as follows:

1. "Bank statement" (used 100% of the time).
2. "Cash flow budget" (used 95% of the time).
3. "Income statement" (used 92.6% of the time).
4. "Cash receipts journal" (used 90.6% of the time).
5. "Cash payments journal" (used 90.6% of the time).
6. "Cash flow statement" (used 88.8% of the time).
7. "General journal" (used 86.2% of the time).
8. "Debtors journal" (used 83.2% of the time).
9. "Creditors journal" (used 83.2% of the time).
10. "Bank reconciliation statement" (used 78.2% of the time).

In core, one can therefore start to make sense of the statistics evident in the Table 4 above as respondents do not really have a need for formal financial statements as 'cash only' instruments are predominantly used to make business decisions (evident in Table 5).

Although respondents were 'cash orientated' when making business decisions, the authors decided to ask respondents what information they make use of (stemming from their accounting information systems) apart from 'cash items'. This was done by asking respondents to rate a total of 10 statements on a 5 point likert scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree), which started with the following sentence: "The following financial information (other than cash) stems from my accounting information system and is used to help make business decisions …" A summary of the responses received are shown in Table 6 below:

Table 6. *Financial information (other than cash) which stems from implemented accounting information systems and used by respondents to help make business decisions*

Financial information	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Mean	Std Dev
Depreciation	15.62%	31.25%	-	9.38%	43.75%	3.34	1.66
Inventory	3.11%	28.13%	-	15.63%	53.13%	3.88	1.41
Telephone	3.11%	28.13%	-	15.63%	53.13%	3.88	1.41
Competitor pricing	-	-	-	-	100.00%	5.00	0.00
Cost of sales	-	-	-	-	100.00%	5.00	0.00
Gross profit	-	-	-	-	100.00%	5.00	0.00
Net profit	-	-	-	-	100.00%	5.00	0.00
Salaries	-	-	-	-	100.00%	5.00	0.00
Sales	-	-	-	-	100.00%	5.00	0.00
Wages	-	-	-	-	100.00%	5.00	0.00
Average	2.19%	8.75%	0.00%	4.06%	85.00%	4.61	0.45

Source: Authors' fieldwork, 2015

From the table above it is interesting to note that apart from information pertaining to 'cash', respondents also took into consideration financial information which may have a direct impact on its overall existence – specifically its profitability and liquidity. Along with information pertaining to 'cash', it was evident that in 100% of cases, respondents made use of "Competitor pricing", "Cost of sales", "Gross profit", "Net profit", "Salaries", "Sales" and "Wages" to make business decisions.

4.4. The Value of Accounting Information Systems as a Decision Making Tool

In order to understand whether accounting information systems deployed in SMMEs did add value in business decision making processes, the authors asked respondents to rate 9 statements on a 5 point likert scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree), starting with the following sentence: "The financial information that are provided through the implemented accounting information system(s), in this business, provide to management with information to make decisions relating to …" The following dispensation emerged in Table 7 below:

Table 7. *The use of financial information stemming from accounting information systems implemented in SMMEs*

Business decision	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Mean	Std Dev
Business expansion	-	-	-	-	100%	5.00	0.00
Discontinuation of products/services	-	-	-	-	100%	5.00	0.00
Forecasting	-	-	-	-	100%	5.00	0.00
Budgeting	-	-	-	-	100%	5.00	0.00
Purchases from suppliers	-	-	-	-	100%	5.00	0.00
Offering of new products/services	-	-	-	-	100%	5.00	0.00
Physical layout of the business	-	-	-	-	100%	5.00	0.00
Markup on goods/services	-	-	-	-	100%	5.00	0.00
Writing off of bad debts	-	-	-	-	100%	5.00	0.00
Average	0.00%	0.00%	0.00%	0.00%	100.0%	5.00	0.00

Source: Authors' fieldwork, 2015

From the statistics in Table 7 above, it is clear that all of the 9 listed business decisions were directly impacted by the utilization of financial information stemming from accounting information systems used.

5. Conclusion

Prior research shows that accounting information systems are crucial in commerce today as time is money. The quicker, cheaper and more accurate financial information can be processed and analyzed, to help generate decision making information, the more probable it is for a business to become economically sustainable. Regardless of the accounting information systems used, it is clear that such implemented systems should aid in the generation of relevant, reliable, understandable, timeous, comparable and valid information to aid in economic decision making by decision makers.

Though a magnitude of accounting information systems exist for South African SMMEs to make use of, from the research conducted it is evident that majority of respondents did not make use of formal accounting information systems (MS Excel and/or by hand). Although the latter accounting information systems were regarded as 'customized', the authors believed that the value that deployed accounting information systems added was not as great as that of formal accounting information systems. As such deductions were made that 1) formal accounting information systems are too expensive to implement by SMMEs, 2) respondents have are not familiar with formal accounting information systems that are on the market, 3) respondents are not 'skilled enough' to make proper use of formal accounting information systems, and/or 4) there is no 'need' for respondents to make use of formal accounting information systems.

When respondents were asked the exact financial instruments they use, stemming from their deployed accounting information system(s), it was found that instruments which measure 'cash' were greatly used to make business decisions (e.g. "Bank statement", "Cash flow budget", etc.). Although the predominant use of instruments which measure 'cash' is of great assistance to respondents when making business decisions, the reality is that these instruments can never provide a true reflection of a business' financial performance (profitability) and financial position (liquidity and solvency).

When respondents were asked which financial information, other than 'cash aspects', they made use of to make business decisions, it was found that they did make use of critical information which directly impacts the profitability and liquidity of their respective businesses (e.g. "Sales", "Gross profit", "Net profit", etc.).

All in all, although respondents did not make use of formal accounting information systems, it is clearly evident that the accounting information systems that were deployed by respondents did add a lot of value in terms of making sound business decisions. The downside to the latter is that if 'cash-only' information is predominantly considered to make business decisions, SMMEs face the risk of a decrease in profitability (the measurement of income vs. expenses), a decrease in solvency (the measurement of assets vs. liabilities), and/or a decrease in efficiency (the measurement of duration for a business to generate money).

6. Managerial Implications

From the research conducted, the authors are of the opinion that since SMME leaders made use of predominantly 'cash-only' information to make business decisions, their respective SMMEs face the risk of decreased levels of profitability (the measurement of income vs. expenses), decreased levels of solvency (the measurement of assets vs. liabilities), and/or decreased levels of in efficiency (the measurement of duration for a business to generate money). As such, SMME leaders should strive to adjust their relevant accounting information systems to show a 'balanced view' of their respective SMMEs' financial performance and financial position.

7. Avenues for Further Research

The authors of this paper suggest that further research is conducted on providing a better understanding as to how informal accounting information systems, as implemented by SMMEs, work in great detail. By doing so relevant stakeholders, professional bodies and academic institutions, among others, may glean more insight into how SMMEs can effectively evolve to established organizations.

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9. References

Abor, J. and Quartey, P., 2010. Issues in SME Development in Ghana and South Africa. *International Research Journal of Finance and Economics*, 39(1), pp. 218-228.

Alia, A., Rahmanb, A. and Ismail, N., 2012. Predicting Continuance Intention to Use Accounting Information Systems Among SMEs in Terengganu, Malaysia. *International Journal of Economics and Management*, 6(2), pp.295-320.

Allah, T., August, P., Bhaza, S., Chigovanyika, T., Dyan, U., Muteweye, T., Ngcoza, M., Tshiwula, N., Qambela, V., Vooi, Y. and Bruwer, J-P., 2013. Accounting Information Systems in the Fast Food Industry: A valuable tool for Small Business Survival. *African Journal of Business Management*, 7(4), pp. 260-264.

Agnes, A., 2011. *Computerised accounting systems and financial reporting: A case of national water and sewerage corporation*, Mbale Branch. [online] Available from: http://cees.mak.ac.ug/sites/default/files/publications/AMVIKO.pdf [Accessed 01/03/2015].

Bruwer, JP., 2010. *Sustainability of South African FMCG SMME retail business in the Cape Peninsula.* Dissertation for the MTech: Internal Auditing in the faculty of Business at the Cape Peninsula University of Technology.

Bruwer, JP. and Holtzhausen, D., 2014. *Accounting for non-accountants*. Cape Town: Oxford University Press Southern Africa.

Bruwer, J-P, Masama, B., Mgidi, A., Myezo, M., Nqayi, P., Nzuza, N., Phangwa, M., Sibanyoni, S. and Va, N., 2013. The need for a customised risk management framework for small enterprises. *Southern African Accounting Association: Conference Proceedings*. [online]. Available at: http://www.saaa.org.za/Downloads/Publications/The%20need%20for%20a%20customised%20risk %20management%20framework%20for%20small%20enterprises.pdf [Accessed on 12 January2015].

Butkevicius, A., 2009. Assessment of the Integration of the Accounting Information System in Small and Medium. *Ekonomika*, 88(1), pp.144-163.

Buys, J., 2012. *A conceptual framework for determining sustainability of SMMEs in Lesedi.* Published dissertation submitted for the partial fulfillment for a Masters in Business Administration. North West University, South Africa.

Canadian Government, 2010. *National Aquaculture Strategic Action Plan Initiative (NASAPI)* [online]. Available at: http://www.dfo-mpo.gc.ca/aquaculture/lib-bib/nasapi-inpasa/Report-eng.htm [Accessed on 12 January2015].

Chen, H. and Wu, C.F., 2005. *Factors Affecting Integration Technologies Adoption: A Comparative Analysis between SMEs And Large Companies.* Thesis submitted for the fulfillment for a Doctor of Philosophy. Brunel University.

Chiware, E., 2008. *Business information needs, seeking patterns and information services in the small medium and micro enterprises sector (SMME) in Namibia.* Thesis submitted for the fulfillment for a Doctor of Philosophy: Information Science. University of Pretoria.

Collis, J. and Hussey, R., 2009. *Business Research: A Practical Guide for Undergraduate and Postgraduate Students*. New York: Palgrave MacMillan.

Dalcı, İ. and Tanış, V., 2011. Benefits of Computerized Accounting. Review of Social, *Economic and Business Studies*, 2, pp.45-64.

Fadhil, N. and Fadhil, N., 2011. Managing company's financial among small and medium non-manufacturing companies. *Far East Journal of Psychology and Business*, 2(1), pp. 17-36.

Fatoki, O., 2014. The Financial Bootstrapping Methods Employed by New Micro Enterprises in the Retail Sector in South Africa, *Mediterranean Journal of Social Sciences*, 5(3): 72-80.

Fatoki, O. and Smit, V., 2011. Constraints to credit access by new SMEs in South Africa: A supply side analysis. *African Journal of Business Management*. 5(4), pp. 1413-1425

Gelinas, U., Dull, R. and Wheeler, P., 2011. *Accounting information systems.* Mason, OH: Cengage Learning

Gordon, C., Baatjies, V., Johannes, L., Samaai, S., Sonto, J., Smit, Y. and Bruwer, J-P., 2014. The control environment of fast food micro and very small entities in the Cape Metropole. *Topclass Journal of Business Management*, 1(2), pp. 37-46, 26

Grande, E., Estébanez, R. and Colomina, C., 2011. The impact of Accounting Information Systems (AIS) on performance measures: empirical evidence in Spanish SMEs. *The International Journal of Digital Accounting Research*, 11(1), pp. 25 - 43.

Guitierrez, M., Lim, W., Ong, K. and Yu, N., 2011. A study on the determinants of computerised accounting systems by SMEs in SM City North Edsa,Quezon City,Philippines. Working paper [online] Available at: http://www.docstoc.com/docs/124271106/FINAL-THESIS-081909 [Accessed on 08 April 2015]

Gwangwava, E., Faitira, M., Mabvure, J. and Gutu, K., 2012. Evaluation of factors influencing adoption of accounting information systems by Small to Medium enterprises in Chinhoyi. *Journal of Contemporary Research in Business*, 4(6), pp.1126-41.

Hall, J., 2008. *Accounting Information Systems*. Mason,OH: Cengage Learning

Hall, J., 2012. *Accounting Information Systems*. Mason,OH: Cengage Learning

Hall, J., 2015. *Accounting Information Systems*. Mason,OH: Cengage Learning

Ismail, N., Abdullah, S. and Tayib, M., 2003. Computer-based accounting systems: The case of manufacturing-based Small and Medium Enterprises in the northern region of Peninsular Malaysia. *Jurnal Teknologi*, 36(1), pp. 19–36.

Ismail, N. and King, M., 2005. Firm performance and AIS alignment. *International Journal of Accounting Information Systems*, 6(4), pp.241– 259.

Ismail, N.A. and King, M., 2007. Factors influencing the alignment of accounting information systems in small and medium sized Malaysian manufacturing firms. *Journal of Information Systems and Small Business*, 1(1) pp.1-20.

Juozapavičius, A., 2009. Assessment of the integration of the accounting information system in small and medium Luthuanian enterprises. *Economica*, 92(47) pp. 144-161.

Kharuddin, S., Ashhari, Z. and Nassir, A., 2010. Information System and Firms' Performance: The Case of Malaysian Small Medium Enterprises. *International Business Research*, 3(4), pp. 28–35.

Kouser, R., Awan, A., Gul-e-Rana and Ali Shahzad, F., 2011. Firm size, leverage and profitability: overriding impact of accounting information systems. *Business and Management Review*, 1(10), pp. 58-64.

Leedy, P. and Ormrod, J., 2010. *Practical Research – Planning and Design*. New York: Pearson.

Marcella, R. and Illingworth, L., 2012. The impact of information behavior on small business failure. *Information Research*, 17(3), paper 525, [online] Available at: http://www.informationr.net/ir/17-3/paper525.html#.VRapoOGmRlA [Accessed on 08 March 2015]

Maseko, N. and Manyani, O., 2011. Accounting practices of SMEs in Zimbabwe: An investigative study of record keeping for performance measurement (A case study of Bindura). *Journal of Accounting and Taxation*, 3(8), pp.171-181.

Mazanai, M. and Fatoki, O., 2011. The Effectiveness of Business Development Services Providers (BDS) in Improving Access to Debt Finance by Start-Up SMEs in South Africa, *International Journal of Economics and Finance*, 3(4), pp. 208-216.

Modiba, F., 2010. *Accessing and using information and communication technologies by women-owned SMMEs in Pretoria, South Africa*. Dissertation submitted for the fulfillment for a Master of Arts. University of South Africa.

Monk, E. and Wagner, B., 2009. *Concepts in Enterprise Resource Planning*. [online] Available at: www.sap.com/sme/solutions [Accessed 15 July 2012].

Namani, B., 2009. The Role of Information Technology in Small and Medium Sized Enterprises in Kosova. *2009 Fulbright Academy Conference*.

Nawaz, R., 2012. *The Impact of Financial Information on Organizing and Managing a Small Business.* Dissertation submitted for the fulfillment for a Master of Business. Auckland University of Technology.

Ngary, C., Smit, Y., Ukpere, W. and Bruwer, J-P., 2014. Financial Performance Measures and Business Objectives Attainment in Fast Food SMMEs in the Cape Metropolis: A preliminary Liability and Suitability analysis. *Mediterranean Journal of Social Sciences*, 5(20): 909-921.

Ngubane, N., Mayekiso, S., Sikota, S., Fitshane, S., Matsoso, M. and Bruwer, J-P., 2015. Inventory management systems used by manufacturing small medium and micro enterprises in Cape Town. *Mediterranean Journal of Social Sciences*. 6(1), pp. 382-390.

Olawale, F. and Garwe, D., 2010. Obstacles to the growth of new SMEs in South Africa: A principal component analysis approach. *African Journal of Business Management*, 4(5), pp. 729-738.

Osterwalder, A. 2004. *The business model ontology a proposition in a design science approach.* Doctoral thesis submitted inInformatique de Gestion, Présentée à l'Ecole des Hautes Etudes Commerciales de l'Université de Lausanne

Sajady, H., Dastgir, M. and Nejad, H., 2008. Evaluation of the effectiveness of accounting information systems. *International Journal of Information Science and Technology*, 6(2), pp. 49-59.

Salehi, M., Rostami, V. and Mogadam, A., 2010. Usefulness of Accounting Information System in Emerging Economy: Empirical Evidence of Iran. *International Journal of Economics and Finance*, 2(2), pp.186-95.

Salie, M., Strauss, N. Davids, M., Smit, Y., Boshoff, S. and Bruwer, J-P., 2014. The effects of sin tax on the profitability of SMME convenience stores in the Cape Metropole. *Topclass Journal of Business Management*, 1(2), pp. 25-36.

Sam, M., Hoshino, Y. and Tahir, N., 2012. The Adoption of Computerized Accounting System in Small Medium Enterprises in Melaka, Malaysia. *International Journal of Business and Management,* 17(18), pp. 12-25.

Shokane, J., 2001. *The use of business information by Small and medium Sized Enterprises in Acornhoek.* Dissertation submitted for the fulfillment for a Master of Informatics. Rand Afrikaans University.

Siwangaza, L., Smit, Y., Bruwer, J-P and Ukpere, W., 2014. The Status of Internal Controls in Fast Moving Consumer Goods Enterprises within the Cape Peninsula. *Mediterranean Journal of Social Sciences,* 5(10), pp. 163-175.

Smit, Y., 2012. *A structured approach to risk management for South African SMMEs*. Thesis submitted for the fulfillment for a DTech: Internal Auditing. Cape Peninsula University of Technology.

Smit, Y. and Watkins, A., 2012. A literature review of small and medium enterprises (SME) risk management practices in South Africa. *African Journal of Business Management*, 6(21), pp. 6324-6330

Soudani, S. 2012. The Usefulness of an Accounting Information System for Effective Organizational Performance. *International Journal of Economics and Finance,* 4(5), pp. 136-145.

South Africa Government, 1996. *Small Business Act No. 102 of 1996*, Pretoria: Government Printer

Stanković, A., Mitrić, M. and Knežević, S., 2012. Business and Financial Decisions Based on Information provided by Accounting Information Systems. Advanced Research in Scientific Areas. *The 1st Virtual International Conference on Advanced Research in Scientific Areas (ARSA - 2012) Slovakia,* published in Conference Proceedings, pp. 660-664.

Swart, M. 2011. Small businesses are set to lead economic recovery. *Professional Accountant (SAIPA).* Oct / Nov, pp.10-12

Tokic,M., Španja, M. and Tokic, I., 2011. Functional structure of entrepreneurial accounting information systems. *International Journal of Engineering*, 9(2), pp. 165-168.

Toth, Z., 2012. The Current Role of Accounting Information Systems. *Club of Economics in Miskolc'*, 8(1), pp.91-95.

Wang D. and Huynh Q., 2013. Effects of Environmental Uncertainty on Computerized Accounting System Adoption and Firm Performance. *International Journal of Humanities and Applied Sciences*, 2(1), pp. 13-21

Xu, H., 2003. *Critical Success Factors for Accounting Information Systems Data Quality*. Dissertation submitted for the fulfillment for a Doctor of Philosophy. University of Southern Queensland.