International Research Journal of Finance and Economics
ISSN 1450-2887 Issue 179 June, 2020
http://www.internationalresearchjournaloffinanceandeconomics.com

The Influence of Accounting Information System and Religion Commitment Inventory on the Performance of Small and Medium Scale Enterprises in Jordan

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Abstract

The study focuses on the influence of accounting information system on the performance of small and medium scale enterprises in Jordan, taking the role of religion commitment inventory as moderating variable. Hence, the study proposes a theoretical framework to examine the effect of religiosity towards the SMEs' business performance. A quantitative design with a simple random sampling and distributed by emails (online survey questionnaires) was distributed to 386 SMEs in Jordan. The data was analyzed using multiple regression technique. The finding indicates that the AIS and religiosity influences SMEs performance with mixed results. In this context, AIS and religiosity make a significant contribution to SMEs' by increasing business performance financially and non-financially. Finally, it is recommended that the use of AIS is essential for improving the performance of SMEs in Jordan.

Keywords: accounting information system, performance of small and medium enterprises

1. Introduction

As the integration of goods, services, markets and business competition continues to evolve globally (Zhang et al., 2019; Chung & Chung, 2013; Qin et al., 2008; Hill, 2008; Roland- Holst, 2002), businesses must be more effective, efficient, robust, to enhance the quality of products, services, mitigate cost and be timelier in meeting customer's needs. Accounting information system (AIS) provides essential resources in order to meet these requirements effectively even in businesses like small and medium scale enterprises (SMEs). AIS has powerful influence on the performance of small and medium scale enterprises. Studies have shown that AIS is critical to the performance of SMEs in any environment (Tilahun, 2019; Rosa & Purfini, 2019; Ganyam & Ivungu, 2019; Al-Dalaien & Khan, 2018; Al-dmour et al., 2017). AIS is a system that involves human resources, accounting terms, financial records, instruction manuals, charts, performance expectancy and customize reports on a specific need of a business (Tilahun, 2019; Rosa & Purfini, 2019). It is designed and implemented to record the financial transaction, events of a business and provide a statement of financial expenditure and receipts relating to a period or purpose of the business. Then it accounts for them in a manner that complies with procedures and policies guiding the business.

More also, it is based on the database of the organization that generates information for the people to achieve the corporate or statutory goal of the organization. Furthermore, it is a set of records, procedures, and equipment that routinely deals with the events affecting the financial performance and

position of the organization. This study investigates the influence of AIS on the performance of SMEs and designs a conceptual model to enhance the adoption of AIS to improve the performance of SMEs in Jordan.

2. Accounting Information System

Accounting performance remains in the development and growth of SMEs survival (Barbera, & Hasso, 2013; Okpara, 2011). It is necessary for giving reasonably high returns to the organization. Its flags up some vital issues for studying and revising budgetary practice that relate to the higher goals of the SMEs. It also provides an opportunity for updating procedures and aligning them with perceived examples of best accounting performance and improving the strategic effort of SMEs and improve data sharing and integrity. SMEs have different characteristics that distinguish them from large companies by shareholders, and these characteristics have resulted to efficiency and profitability (Arosa, Iturralde, & Maseda, 2013).

An AIS can be either a manual system or a computer-based system that utilizes information technology (Tilahun, 2019). Accounting information system requires that data must be gathered, entered, processed, stored and reported as financial information. The manual technique or computer (hardware, software and peripherals) are the applied tools to create the information. The determinants of AIS adoption include the factors that affect the decision to adopt or not to adopt AIS by an organization. Nowadays, business enterprise and other organizations are trying to embrace AIS since its adoption have advantages of increasing operationality and functionality of the accounting section within the organization. AIS adoption in business has been shown to improve accuracy, faster processing, aids business cost control and provide a better external financial reporting system.

Vividly, the purpose of the AIS is to measure the financial performance of a business and to perform accounting functions. Likewise, accounting information is needed not only by managers in managing the financial transactions of the business but also by investors like the shareholders that require regular financial statements to assess the business performance. It is necessary by a government to ensure effective utilization of the country's resources; therefore, it plays a significant role in business continuity, economic and social aspects. More also, it assists in auditing by examining irregularities and misappropriations of funds in business organizations.

Generally, the AIS ease the process of collecting, storing, processing, communicating financial and accounting data through financial statements. Hence, supporting and guiding organizational decision-making process. For small firms to make informed choices and successful decision making, there must be available financial information and it must be deployed in a variety of financial management techniques used in the business.

3. Small and Medium Enterprises (SMEs)

The most common form of business organization in the world is SMEs, for instance, in countries such as Jordan. SMEs, regardless of their size, need to be effectively and successfully managed for it to grow, improve performance, profitability, competitiveness and sustainability. The SMEs in Jordan in this study have been chosen primarily because the SMEs play a significant role in the development of the industries in the country in general, as private SMEs are usually held directly or indirectly by the private sector.

Nowadays, SMEs are gaining widespread acceptance as feasible drivers of industrial and economic growth (Harash 2015; Harash et al., 2014). Empirical studies demonstrate that SMEs in developing countries are noticeable in the support and attraction of economic prosperity (Harash, 2017; Harash, 2015; Harash et al., 2013; Safiriyu & Njogo, 2012; Olatunji et al., 2013). Available data from the National Office of Statistics prove that private sector in Jordan consists primarily of SMEs which are a focal point in shaping enterprise policy and those represent 70% of companies in Jordan (Harash, 2015; Harash et al., 2014; Harash et al., 2013).

4. The SMEs Nature in Jordan

To achieve a better study, it is important to know the SMEs definition in Jordan (OECD, 2019). The SMEs are currently known in Jordan according to the definition guide by the Ministry of Industry as applies a cut-off of 250 persons employed to identify firms as SMEs, in conformance with the international practice guided in various countries across the globe and inculcated in member states of the European Union (EU) and in most OECD member and other partner countries. Hence, the Department of Statistics (DoS) in Jordan introduces the same cut-off and begins producing business statistics by companies' employment size of the enterprise according to international standard breakdowns. That is, from 1 to 9 persons workforce, from 10 to 49, from 50 to 249, and likewise from 250 and more. This will enable international comparability of SME statistics. Meanwhile, the highlight of SMEs nature in Jordan is presents in Table 1.

Table 1: The SMEs Nature in Jordan

Business size	Criteria and Conversion of Jordan's Dinar (JOD) to United States Dollar
Small enterprise	**Manufacturing:** Fixed asset value* of Dinar 5 million to Dinar 100 million (USD 7,052,275.00 to USD 141,045,500.00) and 25 to 99 employees
	Service and trading: Fixed asset value* of Dinar 0.5 million to Dinar 10 million (USD 705,227.50 to USD 211,568,250.00) and 10 to 25 employees
Medium enterprise	**Manufacturing:** Fixed asset value* of Dinar 100 million to Dinar 300 million (USD 141,045,500.00 to USD 423,136,500.00) and 100 to 250 employees
	Service and trading: Fixed asset value* of Dinar 10 million to Dinar 150 million (USD 211,568,250.00 to USD 211,568,250.00) and 501 to 100 employees

Note*: Fixed asset value was obtained by deduction of value of land and building. Thus, an SME can rent or own its premise that may not be important.
Source: Ministry of Industry, Government of Jordan.

The same kind of definition has been given to SME's by most Banks in Jordan, even the Central Bank and some financial sector. However, while the Table 1 definition is currently widely accepted, additional definitions also prominence with a diversity of criteria followed in various countries or by diverse organizations within a country. In addition to the number of staffs or infrastructural resources, certain agencies use the loan amount or turnover to denote SMEs. Hence, as the World Bank Group has noted in the current reports that a primary dispute in gathering cross-country. The corresponding data on access to finance by SMEs is the deficiency of uniformity across nations on definition of SMEs (International Finance Corporation (IFC), 2011).

In addition, within every standard, varying cut-off policies are applied by the most countries. For instance, according to World Bank's admittance to Finance Studies, about 150 employees are considered as the highest for a SME. Although most countries consider 250 employees as the maximum number for an SME, while, some countries are using 50 employers as the standard boundary (World Bank Group, 2010).

In Jordan, the Department of Statistics (DoS) has the accountability for gathering data on SMEs. The institution gathers, in yearly basis, detailed manufacture data from a model of production enterprises that have 10 or additional workers on its Survey of Manufacturing Industries (SMI). Anyway, SMI data are not obtainable by the size of employees and data gathered for fixed assets under the study may not necessarily reproduce existing substitute expenses. As a result, data collected by DS cannot be utilized to assess the production amount and performance of any specific cluster of manufacturing companies.

Due to the small amount of capital and fewer staff, most of the SMEs in Jordan cannot generally have sound or efficient AIS and an established accounting department. Recently, few SMEs have started using different accounting softwares with a view to keep the financial information efficient and to increase operational efficiency and operating profit. Regrettably, there are few studies to ascertain the role of AIS on OP.

5. Financial Performance of SMEs Concepts

In the past years, business performance has generated considerable attention as a substantial academic topic for studying SMEs in the discipline of finance and management. Scholars in the academic community have chosen diverse methods for the exploration of this issue. Previous studies that examine the effects of applying AIS have analyzed SMEs' performance financially and non-financially. One of the critical questions in this study is to determine the influence of AIS on the financial performance of SMEs in the service sector of Jordan?

As found in the literature, defining performance is challenging across the globe. Performance, achievement and success have been defined in different ways in the literature. In any business, the associated parties like business owners, managers, and investors, always want to see an excellent performance in their business (Jones et al., 2018; Harash, 2017; Mazzarol, 2014; Gibson, 1992).

As found in the literature, a wide variety of definitions of organization performance were proposed (Taouab & Issor, 2019; Borges et al., 2018; Uadiale & Fagbemi, 2012). For instance, authors like Özer (2012); Sacristán-Navarro et al., (2011); Petersen & Schoeman, (2008); Selvarajan et al., (2007) defines performance as a measure of how an organization can utilize its assets from its business and realize revenues. Likewise, some modern literature defines performance as the outcomes of the activities of an organization or business investment over a certain period. Also, performance can be defined as an accomplishment of specified business objectives measured towards or against known standards, state, condition and cost (Özer, 2012; Sacristán-Navarro et al., 2011; Thrikawala, 2011; Davis & Cobb, 2010).

In any investigation about SME management, performance is so typical, that is, its structure and definition are not always justifiable (March & Sutton 1997). Performance is the result of strategies that an organization or a firm deploys to achieve market-oriented and monetary goals (Kaleka & Morgan, 2019; Na, Kang & Jeong, 2019; Aghazadeh, 2015). The level of achievement or success of a firm within the SMEs can be measured through its performance based on a selected period. In business studies, the concept of success is sometimes referred to as an organization's performance (Zaim et al., 2013). Knowing that SMEs often play a vital role in improving the economy of a nation and leads to global economic advancement, this enables financial performance as a major issue for SME management. Usually, an organization's performance is seen from the angle it manages to realize its goals (Wadhwa & Parimoo, 2016).

Distinct scholars have attempted to provide a standard definition of performance; however, they are yet to agree over a uniform definition. Particularly concerning some aspects of terminology concerns, analysis levels, and the conceptual reasoning for evaluation (Aspers & Corte, 2019). The performance of a firm can be defined in different ways depending on the underlying questions at heart when inquiring about a business's performance. The findings of various studies have not provided a common definition to establish performance. In 2009, Richard et al., stated that performance consists of three areas of company outcomes, that is, financial performance which are the profits, return on investment, return on assets, etc. (Ondoro, 2015). The market performance i.e. market share, sales and shareholder return i.e. economic value added, total shareholder return, etc.

The performance of SMEs can be measured by objective, subjective, and or operational measures. Authors like Petersen and Schoeman, (2008), Selvarajan *et al*., (2007), Ittner and Larcker (2003), Juhl *et al*., (2002), stated that goal approach measures performance using financial (objective) and non-financial measures (subjective). That is, financial measures of performance are seen as the profit of a company's functionality in monetary terms. Thus, financial measures of performance are obtained from the accounts of a company, otherwise, it may be derived from the company's profit and loss financial statement or the balance sheet. Additionally, financial measures are termed "objective measures" since they can be measured and verified individually.

Nevertheless, it is essential to integrate non-financial measures of performance together with financial measures to totally measure performance (Petersen & Schoeman, 2008; Selvarajan *et al*., 2007; Ittner & Larcker, 2003; Juhl *et al*., 2002). Likewise, the non- financial measures referred to as the subjective performance measures of performance (Petersen & Schoeman, 2008). Non-financial

measures are measures that are not found in chart accounts of a company (Ittner & Larcker, 2003; Selvarajan *et al*., 2007). The application of non-financial measures of performance enhances accounting measures and provides data on progress associated with customer requirements or competitors and other non-financial objectives that can be crucial in achieving profit (Ittner & Larcker, 2003; Juhl *et al*., 2002; Selvarajan *et al*., 2007).

Recently researchers have utilized financial and non-financial means as the most important criteria for measuring SMEs's performance. (Sacristán-Navarro *et al*., 2011; Thrikawala, 2011; Davis & Cobb, 2010; Bhagat & Bolton, 2008; Selvarajan *et al*., 2007; Watson, 2007; Dowling & Helm, 2006). Their studies suggest that no one way measure of performance can be used alone to ascertain a true measure of a company performance. Rather, different measures such as financial and non-financial should be applied together based on the previous studies (Sacristán-Navarro *et al*., 2011; Thrikawala, 2011; Davis & Cobb, 2010; Bhagat & Bolton, 2008; Watson, 2007; Dowling & Helm, 2006). Therefore, in this study, performance measuring SMEs is measured by financial measures (i.e., Return on Investment and Sales Growth as financial performance). Similarly, nonfinancial measures satisfaction as performance non-financial. The items is profitably applied to the area of central concern to measuring SMEs is widely applied by one or more users and enhances the quality of their performance.

6. Religious Commitment Inventory

A study by Alam and Sayuti (2011) shows that perceived behavioral control has a significant impact on intention to purchasing halal food. According to the authors the relationship is a positive one which means that the greater effect of control in describing variability in behavior is not unusual. The study was consistent with other work by Al-shareem, Yusof and Kamal (2015), where it was found that perceived behavioural control can strongly influenced Muslims behavioural and intention to go for halal food (Al-shareem, Yusof and Kamal, 2015).

Religious Commitment Inventory (RCI): refers to the extent or level of one's commitment or devotion to his or her beliefs, which is reflected in their attitudes and behavior. RCI can be divided into two types: intrapersonal religiosity that originates from the beliefs and attitudes of an individual. Then interpersonal religiosity that develops from the involvement of an individual with a religious community or organization as measured by the Religious Commitment Inventory (RCI-10) for the purpose of this study. Islamic RCI refers to the extent or level of Jordanian Muslim individual's commitment to his or her beliefs, which is reflected in their attitudes and behaviors. The religiosity measurements were adapted from the Religious Orientation Scale (ROS) (Mohd Elias et al., 2018; Francis, et al., 2016; Darvyri et al., 2014). Also, religiosity measurements were adapted from New Indices of Religious Orientation Revised (NIROR) (Francis, et al., 2016; Hage, & Posner, 2015; Francis 2007). The literature reviewed was an empirical finding based on observation and measurement approach

7. Literature Review

Empirical review of literature is based on observed and measured phenomena and derived knowledge from actual experience rather than from theory or belief. This section will look into scholar's views on the relevance of the accounting information system and the performance of SMEs in Jordan. The key issues are the problem focused upon, the methodology adopted, key findings and conclusions.

Some previous researchers study the various factors that have an influence on firm performance (Cooper & Artz, 1995; Ha et al., 2016; Lussier & Pfeifer, 2001; Armstrong et al., 2016; Meijaard et al., 2005; Roper, 1998; Chandler & Hanks, 1994; Covin, 1991; Qian & Li, 2003; Zahra & George, 1999). SMEs need an indicator to measure its performance to maintain their existence and expand its business. Performance measurement for SMEs is still not well established such as the performance measurement

in the big company. It required the identification of the factors affecting performance measurement in the SMEs as a basis evaluation for SMEs to improve and enhance its performance.

Venkatraman and Ramanujam (1986) developed a conceptualization that illustrates various approaches to measuring organizational performance. They distinguished between three different types of performance in general (financial performance, non-financial performance and performance relates to organizational effectiveness). The first type relates to financial performance which is an outcome-based indicator of performance and is described as the narrowest conception of business performance. Some examples of measures for financial performance include profitability (e.g., return on investment (ROI), sales growth, and earnings per share (EPS).

The analysis on the studies from late 1990s to 2000s still have shown the inconsistent impact of various determination on small and medium-sized firms' performance. Thus, many lots more studies on performance with most relevant determinates should be continuously connected (Murphy et al., 1996) as presented in Table 2.

Table 2: Analysis of the Studies of SMEs Determinants and Performance

Author & Year of study	Determinates (Independent Variable)	Performance (dependent variable)	Sample	Method	Findings
(Short & Keasey, 1999)	Directors' ownership	Profitability	72 SMEs	Face-to-face interview	Significant impact
(Rosa et al., 1996)	Gender	Primary & Subjective measures	600 small business	Interview	Significant determinant
Roper 1998	Entrepreneurial characteristics and strategic	Profitability, Growth and Non-financial	1.853 small manufacturing firms	Survey	Different impact
(Appiah-Adu & Singh, 1998)	Customer orientation	Subjective measurement	500 SMEs	Survey	Positive effect
(Pelham, 1999)	Strategy and market orientation (environment as moderator	Growth, sale effectiveness & profitability	229 small manufacturers firms	Survey	Greater impact on market orientation and minimal on industry characteristic
(Georgellis, Joyce, & Woods, 2000)	Entrepreneurial action and innovation	Performance	300 small manufacturers retailers and service	Survey	Important and strong prediction
(Lumpkin & Dess, 2001)	Entrepreneurial orientation: (environment and industry life-cycle as moderators)	Growth & profitability	124 owners small business	Mailed survey	Different effects on performance
(Lu & Beamish, 2001)	International: extent of FDI, use of alliance, exporting activities	Accounting based measures	164 Japanese SMEs	Survey	Positive impact
(Premaratne, 2001)	Social supporting and inter-firm network	Growth	303 Small business	Mailed survey	Positive association

Source: Author Computation (2019)

The work by Maes 2005 has divided the internal or endogenous factors of SMEs performance into three categories: owner manager level, management practices and company characteristics. The study found that many researchers have focused on the owner-manager level factors such as the personal characteristics of owner-managers. For example, Wijewardena and Tibbits (1999) stated that previous small firm researches primarily focused on entrepreneurial, managerial or other personality attributes of owner-managers. Probably, the domain part of the literature focuses on personal traits, attitudes and values. The studies on the owner-manager and level include personality attributes (Duchesneau, 1990) personalities of entrepreneurs, entrepreneurial action and innovation (Georgellis et al., 2000) entrepreneur characteristics (Roper, 1998) and entrepreneurial orientation (Rauch et al., 2009).

8. Method

The methods focus on the performance influence of AIS in SMEs, by religion commitment inventory. It begins with the population of study conducted among Muslim elites in Jordan.

8.1. Population of Study

Since Islam is the main religion in Jordan, in terms of religion, majority of the population of study were Muslims. Hence, the target population of this study were Muslim investors in SMEs. Muslim investors can be defined as an individual possessing business knowledge, inform of the latest development, learning and understanding beneficial practices in business using religion.

These investors were selected based for two reasons.

(i) most investors usually have reasonable income. As income is important because previous studies revealed customers‟ income has a significant relationship with the usage of “current account” (Metawa & Almossawi, 1998).

(ii) most investors are educated people, that is, they possess knowledge, remain connected to current development and learning and beneficial practices in short-term or long-term.

The study involves survey conducted at the three major cities of Jordan.

8.2. Survey Population

It begins with survey conducted at the three major cities of Jordan. The surveyed cities include *Amman,* which is currently most populated city in Jordan, the next populous city is *Zarqa*, and then after *Zarqa* the next populated city is *Irbid*. Hence, the target population of this study comprise of all SMEs operating in the service sector of Jordan, specifically in the electrical and electronics who have been in the operation for more than 3 years in Amman, Irbid and Zarqa, since it is the most important constituent of SMEs of service sector. These cities were chosen as they are among the cities that have the most SMEs in Jordan (Social Security Corporation, 2016).

The owner/manager of the firm is the only person who fully understands the objectives and directions of the firm and owner-manager who considered themselves an innovator or inventor of change increased the likelihood of growth substantially in business using AIS. Therefore, a sample size of three hundred and eighty-six (386) SMEs operating in Amman, Irbid and Zarqa, Jordan will be used to represent the proposed study population as computed above. Determination of sample size for this study is also made by referring to the work of Krejcie and Morgan (1970).

8.3. Sampling Technique and Sample Size

The sampling technique used was non-probability sampling method. The respondents were first identified by way of answering few questions that can be found on the cover page of the survey questionnaire to qualify for participation. At analyses stage multiple regression analysis was deployed with the guidelines established by Hair Jr, Black, Babin and Anderson (2010). Similarly, the study

considered perceived behavioural and incorporated it in the conceptual model. The variables used are interpersonal religious, intrapersonal religious, religious commitment and SMEs as described in the conceptual model. Sampling is the process of selecting a portion of the population to represent the entire population (Polit & Hungler 1999; LoBiondo-Wood & Haber 1998).

Time and money were saved by selecting a sample to be studied instead of attempting to use the entire population. Obtaining data from the population of SMEs as well as analyzing and interpreting vast amounts of data would have been impossible to accomplish within the time constraints and the limited financial resources which were available for conducting this research. The sample size was determined using Guilford and Fruchter, (1973) formula: Thus, the sample size determination using Guilford and Fruchter's formula is given as;

$$n = \frac{N}{\sum \left[\left(1+N(e)^2\right)\right]}$$

Where
n = the desired sample size to be determined
N = total population
e = accepted error limit (0.05) with 95% confidence level
Therefore,
N= 7,131 e = 0.05, n = unknown sample size

$$n = \frac{11,227}{\left[1+11,227\,(0.05)^2\right]}$$

$$n = \frac{11,227}{\left[1+11,227\,(0.0025)\right]}$$

$$n = \frac{11,227}{\left[1+28.07\right]}$$

$$n = \frac{11,227}{29.07}$$

$$n = 386, \text{i.e. n= unknown sample size} = \frac{N}{\sum\left[1+N(e)^2\right]} = 386$$

Therefore, a sample size of three hundred and eighty-six (386) SMEs operating in Amman, Irbid and Zarqa, in Jordan was used to represent the proposed study population as computed above. Determination of sample size for this study is also made by referring to the work of Krejcie and Morgan (1970). In their generalized scientific guideline for sample size decisions, Krejcie and Morgan (1970) stated that the sample size of 100 is appropriate for study population more than 2,000 elements. The determined sample of this study is also appropriate going by the Roscoe's (1975) rule of thumb. Roscoe (1975) states that for most research, a sample bigger than 30 and less than 500 is appropriate. Therefore, the sample size of 386 is appropriate based on the rule of thumb.

Likewise, a convenience sampling technique employed to select 386 respondents from SMEs of electrical and electronics companies in Amman, Irbid and Zarqa. In this study, a subset of 386 SMEs was selected out of the entire population of electrical and electronics companies of SMEs. This choice of convenience sampling technique will be premised on the fact that is the type of non-probability sampling where the sample is taken from a group of people easy to contract or reach. It is relied on data collection from population members who are conveniently available to participate in the study (Joyce & Paquin, 2016; Krejcie & Morgan, 1970).

8.4. Data Analysis Method

The study was based on the use of a semi-qualitative method that only and directly involves a budget accountant in one company by interviewing the quality of the accounting information system used by many companies. By showing and explaining the features contained in the AIS so that it compared the systems used by various company with good AIS standards. The factors that influence the adoption of AIS have been studied through adoption of different research and analytical methods. The studies include reviewed papers that were identified in a systematic process carried out across the globe in different periods. This includes the issue of AIS adoption and its determinant factors such as understandability, relevance, reliability and accuracy.

8.5. Technology Adoption Approach

In the context of the study, technology adoption is a sociological model that describes the acceptance of an innovation, with respect to the demographic and psychological characteristics. The study has identified and considered that AIS adoption AIS adoption and its determinant factors such as understandability, relevance, reliability and accuracy. It also addressed the hypothesis Ho_1, i.e., $H0_1$: There is no significant relationship between accounting information system and financial performance of SMEs in the service sector of Jordan. The theoretical and empirical approaches to conceptual models constructed are discussed as follow;

8.6. Theoretical Approach

Applying the Resource Based Theory, this study is building on the most significant dimensions of cognitive ability and business relationship. The extent of accounting information usage is expected to provide significant impact to the performance of the small size enterprises. This study is to investigate the impact of using accounting information on the performance of SMEs the service sectors in Jordan. Religiosity is only an inauguration phenomenon to be examined in business environment (McDaniel & Burnett, 1990).

Accordingly, this study considers religiosity as the contingency variable that is anticipated to enhance the relationship between a company's resources and performance. Hence, Contingency Theory (CT) examined the religiosity as the moderator effect of environment variability in enhancing the relationship between accounting information and the SMEs performance.

Theoretical and empirical studies are based on the association between AIS and Recourse based theory (RBT). Recourse based theory suggests that an accounting information system should be designed in a flexible manner (Islam & Hu, 2012). This proposed theoretical framework is designed to take cognizant of financial and non-financial factors that could evaluate the SME's accounting performance. Processing the accounting information is an important decisive element that consists of pre-decisive actors, such as pro decisive process of accountants, consultancies, analysts, managers, financial officers, auditors, regulation and tax organizations (Fagbemi & Olaoye, 2016; Harash, 2015). Therefore, AIS is a system of gathering, storing and processing financial and accounting data that are been used by managers such as tax authorities, investors, and creditors (Kebede, 2016). In practice, AIS is utilized as determinant for investment in SMEs. That is, before any investment plan a

relationship must exist between an investor (that is a dependent variable) and AIS, attitude, perceived behavioural control and environment (that are independent variables).

8.7. Research Instrument and Measurements

This sub-section discusses on the instrument used to measure each of the independent, dependent and moderator variables, these include the constructs, the type of measurements, reliability and the originality of the measurements. These include the constructs, the sort of measurements, reliability and the originality of the measurements.

(i) **Financial Performance of SME:** This study uses the following two dimensions of financial performance; namely the return on investment (ROI) and sales growth (SG). The appropriateness of performance measures varies with the level of analysis, but anyhow the focus should be on measures having inherent meaning for a particular research setting (Becker & Barry, 1996). Accordingly, this study selects the measures that make it likely to articulate the effectiveness of business resources, namely the return on investment and sale growth. Meanwhile, the growth dimension entrenches the concept of the well-being of business relative to the competitors. A ratio of sales growth is calculated through dividing the last year by the first year sales (Davidsson, 1991). The sale growth of this study is calculated as the ratio of the last year to the first year firm's sale for a three-year period (2015 - 2017). After that, the average sales ratio is derived by dividing the total of sales ratio by two.

(ii) **Non-Financial Performance of SME:** This study uses satisfaction as the dimension of non-financial performance. The satisfaction tool by Cooper and Artz (1995) and Abalo et al (2007), includes four items to measure the owner-managers satisfaction. This measurement permits the owner-managers to replicate upon the rewards or disappointments of the entrepreneurship or business, in the light of the experience after the start-up process. The first two questions evaluate the owner-managers' satisfaction on business sale and profit. These two questions deal with their personal overall satisfactions with their businesses (Abalo et al., 2007). For each of these three items, respondents are asked to compare their satisfaction to their expectations at their start using 5-likert scale of very low - 1 to very high - 5.

The fourth item assesses the owner-managers' willingness to start the same business again. This item evaluates the owner-manager overall satisfaction with their venture. This measurement uses 5-Likert scales, which are as follows: not any business, not this business, not sure, yes, major change, and yes, same way. The reliability of this scale is high with a Cronbach's alpha value of 0.78 (Cooper & Artz, 1995).

(iii) **Understandability:** This study uses the understandability as the dimension of accounting information. The relevance comprises a total of six items questions were used to measure dimensions under the understandability. For the understandability variable, each component is represented by five Likert's summated rating scales with 1 = strongly disagree and 5 = strongly agree showing the degree to which they agreed with the statements describing enterprises capability on understandability.

(iv) **Relevance:** This study uses the relevance as the dimension of accounting information.

The relevance comprises a total of forty items questions were used to measure dimensions under the relevance. For the relevance variable, each component is represented by five Likert's summated rating scales with 1 = strongly disagree and 5 = strongly agree showing the degree to which they agreed with the statements describing enterprises capability on relevance.

(v) **Reliability:** This study uses the reliability as the dimension of accounting information.

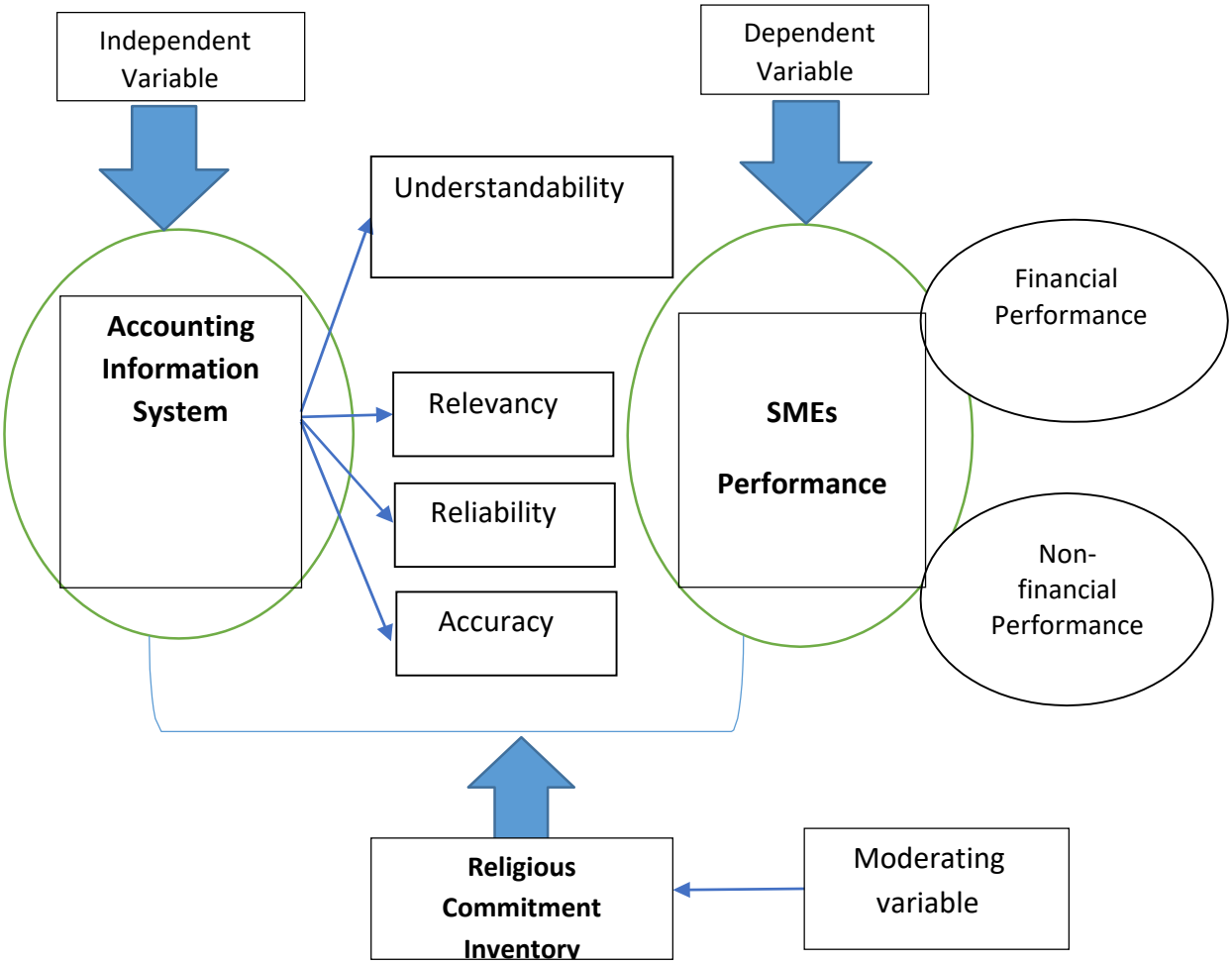
The reliability comprises a total of twelve items questions were used to measure dimensions under the reliability. For reliability variable, each component is represented by five Likert's summated rating scales with 1 = strongly disagree and 5 = strongly agree showing the degree to which they agreed with the statements describing enterprises capability on reliability.

(vi) **Accuracy:** This study uses the accuracy as the dimension of accounting information. The reliability comprises a total of forty items questions were used to measure dimensions under the accuracy. For the accuracy variable, each component is represented by five Likert's summated rating scales with 1 = strongly disagree and 5 = strongly agree showing the degree to which they agreed with the statements describing enterprises capability on accuracy. The proposed conceptual model can be described as follow;

8.8. Proposed Conceptual Model

The conceptual model of the study is presented in Figure 1.

Figure 1: Conceptual Model of the Study



Source: Researcher's Conceptualization (2019)

Figure 1 presents the conceptual model of the study on AIS deployment moderated by religious commitment inventory on the SMEs' performance. Therefore, to understand the relationships between the use of AIS and the performance of SMEs this hypothesis (H1) was formulated:

H1: The small and medium enterprises performance varies with the choice of accounting information system adopted.

Therefore, the small and medium enterprises performance varies with the choice of accounting information system adopted.

The proposed conceptual model suggests that to improve financial performance, managers of SMEs should focus on using AIS, to addressing issues. Hence, this leads to designed frameworks of research-based contingency theory. That is a situation whereby a hypothesis is developed that there is a conditional relationship between two or more independent variables and a dependent variable. The framework includes multiple components of AIS with accounting performance variables which states that AIS has a positive direct effect on accounting performance in SMEs.

8.9. Instrumentation

This study used primary data by means of self -administered questionnaire. The items intended to measure the variables from the previously validated instrument with changes to make the items more relevant to this study. According to Worthington et al., 2003, there are many variables in measuring religious commitment which include.

a) books and magazines about my faith.
b) making of financial contributions to one's religious organisation.
c) spending time trying to grow in understanding of one's faith.
d) Religion is especially important to because it answers many questions about the meaning of life.
e) Religious beliefs lie behind entire approach of life.
f) Spending time with other members of one's religious.
g) Religious beliefs influence of all dealings in life.
h) It is important to spend periods of time in private religious throughout and make reflection.
i) Having satisfaction in working in the activities of one's religious organisation and
j) Keeping inform about one's local religious group have some influence in decision making.

8.10. Questionnaire

The first section (A) of the questionnaire focus on the background information of the respondents such as monthly income, education level, and awareness of religion inventory commitment in SMEs. The information was analysed using multiple-choice format via nominal and ordinal scales. In the second part of the questionnaire section (B), five-point Likert scale were used, that is, indicating "Disagree" to indicating "Agree" then "Strongly Disagree" to indicating "Strongly Agree" and Neutral. In total there 2 scale items used as measurement of the identified constructs. Six items were used to measure attitude, perceived behaviour, religious and intention to invest in SMEs.

8.11. Methods of Data Analysis

Upon completion of data collection, a combination of both descriptive and inferential statistics will be employed as methods of data analysis. Preliminary tests will be conducted to determine the response rate, reliability and validity of the study constructs. Factor analysis and reliability analysis will be employed to assess the validity and reliability of the independent variable of accounting information system and dependent variable of performance of SMEs. Response rate will be calculated using frequency and percentage of response and later compare it with sample size determined before data collection. The descriptive statistics, which include mean, median, standard deviation, frequencies and percentage will be used to describe the main characteristics of the sample using Statistical Package for Social Sciences (SPSS) version 24.

8.12. Relationship Matrix of Research Questions, Objectives Hypotheses and Analytical Procedures

This matrix shows the flow from the research questions to the objectives to the hypotheses and the analytical methods employed to achieve the objectives. The relationship among the research questions,

the objectives of the study, the hypotheses and analytical methods that will be used is presented in the Table 3.

Table 3: Relationship between Objectives, Research Questions, Hypotheses and Procedures

S/N	Research Questions	Research Objectives	Research Hypotheses	Analytical Procedures
1	What is the influence accounting information system on the financial performance of SMEs in the service sector of Jordan?	examine the influence accounting information system on the financial performance of SMEs in the service sector of Jordan.	There is no significant relationship between accounting information system and financial performance of SMEs in the service sector of Jordan.	Multiple Regression
2	What is the effect of accounting information system on the non-financial performance of SMEs in the service sector of Jordan?	determine the effect of accounting information system on the non-financial performance of SMEs in the service sector of Jordan	There is no significant relationship between accounting information system and non-financial performance of SMEs in the service sector of Jordan	Multiple Regression
3	How significant is interpersonal religiousity in moderating the relationship between the accounting information system and financial performance of SMEs in the service sector of Jordan?and financial performance of SMEs in the service sector of Jordan	explore whether interpersonal religiousity has a moderating influence on the relationship between the accounting information system and financial performance of SMEs in the service sector of Jordan	The higher the proportion of interpersonal religiousity, the lower the tendency of moderating the relationship between the accounting information system and financial performance of SMEs in the service sector of Jordan	Correlation
4	How significant is intrapersonal religiousity in moderating the relationship between the accounting information system and financial non-performance of SMEs in the service sector of Jordan?	investigate whether intrapersonal religiousity has a moderating impact on the relationship between the accounting information system and financial non-performance of SMEs in the service sector of Jordan	The higher the proportion of intrapersonal religiousity, the lower the tendency of moderating the relationship between the accounting information system and non-financial performance of SMEs in the service sector of Jordan	Correlation

Source: Author's Computation (2019)

9. Results

Results of the survey and statistical test using multiple regression analysis is presented in as follow;

(i) Result of Demographic Characteristic of Survey

Result of the demographic characteristic of survey for the study is presented in Table 4.

Table 4: Result Demographic Characteristic of Respondents

Respondent's Demographic	Options	Frequency	Percent (%)
Gender	Male	310	80.0
	Female	76	20.0
Age	21-30	118	31.0
	31-40	150	39.0
	41-50	94	24.0
	51-60	24	6.0
Education Level	Diploma	54	14.0
	Degree	193	50.0
	Master/PhD	87	23.0
	Others	52	13.0
Occupation	Executive	10	3.0
	Non - Executive	9	2.0
	Senior Management	110	28.0
	Investors	257	67.0
Monthly Income	Less than JOD 3,000	210	54.0
	JOD 3,001- JOD 5,000	133	34.0
	JOD 5,001- JOD 7,000	23	6.0
	JOD 7,001- JOD 9,000	11	3.0
	JOD 9,001- JOD 11,000	6	2.0
	More than JOD 11,000	3	1.0
Heard about SMEs	Yes	325	84.0
	No	61	16.0
Intention to Invest in SMEs	Yes	247	64.0
	No	139	36.0
When to participate	Within 1 year	119	31.0
	1 to 2 year	115	30.0
	2 to 3 year	43	11.0
	Greater than 3 years	33	8.0
	Not sure	76	20.0

N =386 respondents (Muslim owner/ manager)

(ii) Result of the Statistical Analysis

Result of the multiple regression analysis on the variables correlation is presented in Table 5.

Table 5: Result of multiple regression analysis on correlation with variables

Variables	B	Std. Error	Beta	T-test	p-value
Intrapersonal religious	0.147	0.040	0.155	3.654	0.000
Interpersonal religious	-0.328	0.055	-0.337	-5.990	0.000
Religious Commitment (RC)	0.242	0.033	0.411	7.297	0.000
Slope					
Constant (C)	12.987	1.147		11.324	0.000

Table 5 shows the results of the multiple regression test on relationship of variables. The result of the test shows that the t-statistic as $p < 0.05$) has significant value of 1.980. That is, there is a significant linear correlation between independent variables and intention to invest in SMEs. Therefore, the alternative hypothesis (H1) for attitude, perceived behaviour and religious commitment relationship with intention to invest are accepted. The selection of SMEs and other independent variables are significant.

H0: β 1= β2= β3= 0; H1: β1 =β2 =β3 $\neq$ 0. Reject H0 at the 0.05 level of significance if: t (i.e., T-ratio) < t 0.025, 496 (500-3-1) = +1.980, or t> t 0.025, 496 (500-3-1) = -1.980

(iii) Result of the Analysis of Variance

Result on the analysis of variance (ANOVA) and performance of SEMs is in Table 6.

Table 6: Result: ANOVA on Religious Commitment (RC), Interpersonal and Intrapersonal religious, and Intention to Invest in SMEs (IISMEs),

Model	Sum of squares	Df	Mean square	F	p-value
Regression	527.820	3	175.940	22.281	0.000[c]
Residual	3916.58	496	7.896		
Total	**4444.40**	**499**			

Predictors: (Constant), Religion Commitment (RC), intrapersonal religious, interpersonal religious are Independent variable: Intention to Invest in SMEs (IISMEs), cSignificant at p <0.05 level".

Table 6 presents the results of the ANOVA to test the slope of the final model. The result of the ANOVA analysis shows that the F-statistic ($F_{0.05}$, 3, 496, $p < 0.05$) that significant value is 3.78, which means that there is a significant linear relationship between independent variables and intention to invest in SMEs. The intention to invest in SMEs and other independent variables are significant.

Where, H_0: j $\beta = 0$; H1: at least one j $\beta \neq 0$

H0 rejected at the 0.05 significance level if, t (i.e., F-ratio) < t 0.025, 3, 496 (500-3-1) = +3.78, or t > t 0.025, 3, 496 (500-3-1) = -3.78.

(iv) Discussion of Result

The result of multiple regression analysis shows that t-value is > the t-value from the table for intention to invest in SMEs and independent variables. Hence, the null hypothesis (Ho) was rejected at 0.05 significance levels. There is no correlation between religiosity, attitude, perceived behaviour and intention to invest in SMEs.

Both variables are statistically significant in explaining intention to invest in SMEs. Then H_0 was rejected at the 0.05 level of significant if F (i.e., F-ratio) < -F0.025, 3,496 = -3.78 or F > F0.025, 3, 496 = +3.78 is < F value is 22.281. Since the calculated F-value is > the F-value from the table for intention to invest in SMEs and independent variables, then the Null hypothesis is rejected at the 0.05 significant levels.

(v) Result Summary

The summary of the overall results of the hypothesis testing is presents in Table 7.

Table 7: Results of Overall Testing of Hypothesis

	Alternative Hypothesis	Results
H1:	There is a positive correlation between intrapersonal religious, interpersonal religious and performance of SEMs	Accepted
H2:	There is a significance relationship between and performance of SEMs.	Accepted
H3:	There is a positive association between religious commitment inventory and performance of SEMs.	Accepted

Although, Table 7 revealed the overall results of hypothesis testing. However, ANOVA result, on the coefficient of determination (R^2) for performance of SMEs with intrapersonal religious, interpersonal religious only demonstrates 35.0% of the variation in an intention to invest in SME. Other variables can be explained by 65.0%. The regression model achieved a significant amount of the variation of independent variables in the sample with 1- 0.000174 = 99.999% confidence. Therefore, the regression model generated is statistically significant.

10. Contribution to the Existing Knowledge

This study will try to add to the body of existing knowledge from theoretical and practical perspectives. This will be applicable to other disciplines too because of its relevancy with organization image as well as contribution to the national development. Hence, the study shows the highlight on the importance of the accounting information system and the religion influence for the performance of SMEs from financial and non-financial perspectives. However, this study also confirmed that inerapersonal religious and inerpersonal religious are positively related to intention to invest in SMEs. Furthermore, this study established that religious commitment has the greatest influence of some individual intention to performance of SMEs.

11. Conclusion

The study address the influence of accounting information system and religious commitment inventory on the performance of SMEs in Jordan. However, it started by discussing the theoretical concept of performance in SMEs using AIS and religious commitment inventory. Also, it highlighted the literature that can be helpful through the availability of indicators which was used in testing it by applying Multiple regression analysis. The result indicates that efficient AISs ensures that all levels of management get adequate, relevant and genuine information for planning, increases the control and improves the accounting performance in SMEs. That means the use of AIS is one of the most paramount strategies for SMEs sustainability.

More also, the findings revealing that there is a significant impact of AIS on financial performance in the SMEs in Jordan. Hence based on the findings, we recommend that the use of AIS in SMEs should be encouraged because it can significantly affect the performance of SMEs in terms of financial and non-financial gains (reference to conceptual Model).

Furthermore, the finding demonstrates that there is a direct relationship between AIS and a firm's business performance. In this regard, it has been confirmed that implementing a proper AIS is an enabler to competitive advantage in business. A causal relationship was founded between AIS and firm performance. The study demonstrates the reviewed literature has a relationship between AIS and firm performance. Thus, one can say that SME's performance varies with the choice of AIS adopted.

Although the study hypothesised that there was no relationship between religious commitment and the investment in SMEs. However, the multiple regression model test results indicated that there is a significant difference in investment choice decisions between Muslim and non-Muslim respondents. Likewise, the hypothesis tested for the influence of religiosity on the investor choice decision in SMEs. These results reveal that religiosity does not significantly influence investor's choice decisions, particularly when it comes to investing in SMEs. Future research will extend this study to include other variables such as accounting practices, in evaluating the adoption of AIS in SMEs. Further studies in areas concerning AIS and the financial and non-financial performance of SMEs in Jordan.

References

[1] Aghazadeh, H. (2015). Strategic marketing management: Achieving superior business performance through intelligent marketing strategy. Procedia-Social and Behavioral Sciences, 207, 125-134.

[2] Al-Dalaien, B. O. A., & Khan, N. A. (2018). Effect of Accounting Information System on Financial Performance: A Study of Selected Real Estate Companies in Jordan. International Journal of Current Engineering and Scientific Research (IJCESR), 4, 23-26.

[3] Al-dmour, A., Al-Fawaz, K. M., Al-dmour, R., & Allozi, N. M. (2017). Accounting information system and its role on business performance: A theoretical study. Journal of Management and Strategy, 8(4), 79-87.

[4] Alam, S. S., & Sayuti, N. M. (2011). Applying the Theory of Planned Behavior (TPB) in halal food purchasing. International journal of Commerce and Management.

[5] Al-Shareem, K. M., Yusof, N. A., & Kamal, E. M. (2015). External factors influencing the readiness for implementing public-private partnerships among public and private organizations in Yemen. Journal of Science & Technology Policy Management.

[6] Armstrong, A., Hart-Pinto, A., Sharma, N., & Hassan, Z. (2016). Discrepancies between biopsy and formal excision histology of non-melanoma skin cancer. Journal of Plastic, Reconstructive & Aesthetic Surgery, 69(12), 1714-1716.

[7] Arosa, B., Iturralde, T., & Maseda, A. (2013). The board structure and firm performance in SMEs: Evidence from Spain. Investigaciones Europeas de Dirección y Economía de la Empresa, 19(3), 127-135.

[8] Aspers, P., & Corte, U. (2019). What is qualitative in qualitative research. Qualitative sociology, 42(2), 139-160.

[9] Barbera, F., & Hasso, T. (2013). Do we need to use an accountant? The sales growth and survival benefits to family SMEs. Family Business Review, 26(3), 271-292.

[10] Bhagat, S., & Bolton, B. (2008). Corporate governance and firm performance. Journal of corporate finance, 14(3), 257-273.

[11] Borges, M. L., Anholon, R., Cooper Ordoñez, R. E., Quelhas, O. L. G., Santa-Eulalia, L. A., & Leal Filho, W. (2018). Corporate Social Responsibility (CSR) practices developed by Brazilian companies: an exploratory study. International Journal of Sustainable Development & World Ecology, 25(6), 509-517.

[12] Cedergren, S. I., Elfving, S. W., Eriksson, J., & Parida, V. (2012, June). Analysis of the industrial product-service systems (IPS2) literature: a systematic review. In 2012 IEEE International Conference on Management of Innovation & Technology (ICMIT) (pp. 733- 740). IEEE.

[13] Chandler, G. N., & Hanks, S. H. (1994). Market attractiveness, resource-based capabilities, venture strategies, and venture performance. *Journal of business venturing, 9*(4), 331-349.

[14] Chung, P. T., & Chung, S. H. (2013, May). On data integration and data mining for developing business intelligence. In 2013 IEEE Long Island Systems, Applications and Technology Conference (LISAT) (pp. 1-6). IEEE.

[15] Cooper, A. C. & Artz, K. W. (1995). Determinants of satisfaction for entrepreneurs. *Journal of Business Venturing, 10*(6), 439-457.

[16] Covin, J. G. (1991). Entrepreneurial versus conservative firms: A comparison of strategies and performance. *Journal of management studies, 28*(5), 439-462.

[17] Darvyri, P., Galanakis, M., Avgoustidis, A.G., Pateraki, N., Vasdekis, S., & Darviri, C. The Revised Intrinsic/Extrinsic Religious Orientation Scale in a Sample of Attica's Inhabitants. Psychology, 5, pp. 1557-1567, (2014).

[18] Davis, G. F., & Cobb, J. A. (2010). Corporations and economic inequality around the world: The paradox of hierarchy. Research in Organizational Behavior, 30, 35-53.

[19] Dowling, M., & Helm, R. (2006). Product development success through cooperation: A study of entrepreneurial firms. Technovation, 26(4), 483-488.

[20] Duchesneau, D. A. & Gartner, W. B. (1990). A profile of new venture success and failure in an emerging industry. *Journal of business venturing, 5*(5), 297-312.

[21] Fagbemi, T. O., & Olaoye, J. A. (2016). An evaluation of accounting information system and performance of small scale enterprises in Kwara State, Nigeria. DBA Africa Management Review, 6(1).

[22] Francis, L.J., Fawcett, B.G., Robbins, M & Stairs, D. The New Indices of Religious Orientation Revised (NIROR): A Study among Canadian Adolescents Attending a Baptist Youth Mission and Service Event. Religions, No. 7, pp. 56, (2016).

[23] Francis. L.J. Introducing the New Indices of Religious Orientation (NIRO): Conceptualization and measurement. Mental Health, Religion and Culture 10, pp. 585–602 (2007).
[24] Ganyam, A. I., & Ivungu, J. A. (2019). Effect of accounting information system on financial performance of firms: A review of literature. Journal of Business and Management, 21(5), 39-49.
[25] Georgellis, Y., Joyce, P. & Woods, A. (2000). Entrepreneurial action, innovation and business performance: the small independent business. *Journal of Small Business and Enterprise Development, 7*(1), 7-17.
[26] Gibson, B. (1992). Financial information for decision making: An alternative small firm perspective. The Journal of Entrepreneurial Finance, 1(3), 221-232.
[27] Guilford, J. P. (1960). Fruchter. B.(1973). Fundamental statistics in psychology and education, 5.
[28] Ha, S. T., Lo, M. C. & Wang, Y. C. (2016). Relationship between knowledge management and organizational performance: A test on SMEs in Malaysia. *Procedia-Social and Behavioral Sciences, 224*, 184-189.
[29] Hage, J., & Posner, B. Z. (2015). Religion, religiosity, and leadership practices. Leadership & Organization Development Journal.
[30] Harash, E., Al-Timimi, S., & Alsaadi, J. (2014). The influence of finance on performance of small and medium enterprises (SMES). technology, 4(3), 161-167.-167.
[31] Harash, E. (2015). The role of environmental uncertainty in the link between accounting information system and performance small and medium enterprises in Iraq. Global Journal of Management and Business Research.
[32] Harash, E., Alsaad, F. J., & Ahmed, E. R. (2013). Moderating effect of market practices on the government policy-Performance relationship in Iraq SMEs. American Journal of Economics, 3, 125-130.
[33] Harash, E. (2017). Accounting performance of SMEs and effect of accounting information system: a conceptual model. Global Journal of Management and Business Research.
[34] Hill, C. (2008). International business: Competing in the global market place. Strategic Direction.
[35] Islam, J., & Hu, H. (2012). A review of literature on contingency theory in managerial accounting. African journal of business management, 6(15), 5159.
[36] Ittner, C. D., & Larcker, D. F. (2003). Coming up short on nonfinancial performance measurement. Harvard business review, 81(11), 88-95.
[37] Ittner, C. D., Larcker, D. F., & Meyer, M. W. (2003). Subjectivity and the weighting of performance measures: Evidence from a balanced scorecard. The accounting review, 78(3), 725-758.
[38] Jones, C., Finkler, S. A., Kovner, C. T., & Mose, J. (2018). Financial Management for Nurse Managers and Executives-E-Book. Elsevier Health Sciences.
[39] Joyce, A., & Paquin, R. L. (2016). The triple layered business model canvas: A tool to design more sustainable business models. *Journal of Cleaner Production, 135*, 1474-1486.
[40] Juhl, H. J., Kristensen, K., & Østergaard, P. (2002). Customer satisfaction in European food retailing. Journal of retailing and consumer services, 9(6), 327-334.
[41] Kaleka, A., & Morgan, N. A. (2019). How marketing capabilities and current performance drive strategic intentions in international markets. Industrial Marketing Management, 78, 108-121.
[42] Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities.
[43] *Educational and psychological measurement, 30*(3), 607-610.
[44] LoBiondo-Wood, G., & Haber, J. (1998). Pesquisa em enfermagen: Metodos, avaliacao critica e utilizacao.
[45] Lussier, R. N. & Pfeifer, S. (2001). A crossnational prediction model for business success.
[46] *Journal of Small Business Management, 39*(3), 228-239.

[47] Maes, J., Sels, L. & Roodhooft, F. (2005). Modelling the link between management practices and financial performance. Evidence from small construction companies. *Small Business.*

[48] Mazzarol, T. (2014). Research review: A review of the latest research in the field of small business and entrepreneurship: Financial management in SMEs. Small Enterprise Research, 21(1), 2-13.

[49] Meijaard, J., Brand, M. J. & Mosselman, M. (2005). Organizational structure and performance in Dutch small firms. *Small Business Economics, 25*(1), 83-96.

[50] Metawa, S. A., & Almossawi, M. (1998). Banking behavior of Islamic bank customers: perspectives and implications. International journal of bank marketing.

[51] Mohd Elias, E., Yaacob, N. A., & Othman, S. N. (2018). Enhancing Business Performance through Religiosity Leaderships Style among the Small and Medium

[52] Enterprises. International Journal of Supply Chain Management (IJSCM), 7(2), 95-102.

[53] *Economics, 25*(1), 17-34.

[54] Murphy, G. B., Trailer, J. W. & Hill, R. C. (1996). Measuring performance in entrepreneurship research. *Journal of Business Research, 36*(1), 15-23

[55] Na, Y. K., Kang, S., & Jeong, H. Y. (2019). The effect of market orientation on performance of sharing economy business: Focusing on marketing innovation and sustainable competitive advantage. Sustainability, 11(3), 729.

[56] OECD (2019) SME Policy Effectiveness in Jordan. User Guide 3: SME statistics and entrepreneurship indicators, OECD publishing, Paris.

[57] file:///C:/Users/hp/Downloads/SME-Policy-Effectiveness-in-Jordan-User-Guide-3-SME-statistics-and- entrepreneurship-indicators.pdf

[58] Okpara, J. O. (2011). Factors constraining the growth and survival of SMEs in Nigeria. Management Research Review.

[59] Olatunji, B. O., Naragon-Gainey, K., & Wolitzky-Taylor, K. B. (2013). Specificity of rumination in anxiety and depression: A multimodal meta-analysis. Clinical Psychology: Science and Practice, 20(3), 225-257.

[60] Ondoro, C. O. (2015). Measuring Organization Performance: From Balanced Scorecard to Balanced ESG Framework.

[61] Organisation for Economic Co-operation and Development. (2017). Enhancing the contributions of SMEs in a global and digitalised economy. In Meeting of the OECD Council at Ministerial Level, Paris (Vol. 7, No. June, p. 2017).

[62] Petersen, M. A., & Schoeman, I. (2008, July). Modeling of banking profit via return-on- assets and return-on-equity. In Proceedings of the World Congress on Engineering (Vol. 2, pp. 1-6).

[63] Polit, D. F., & Hungler, B. (1999). Nursing research: Principles and research.

[64] Qian, G., & Li, L. (2003). Profitability of small-and medium-sized enterprises in high-tech industries: the case of the biotechnology industry. *Strategic Management Journal, 24*(9), 881-887.

[65] Qin, A. K., Huang, V. L., & Suganthan, P. N. (2008). Differential evolution algorithm with strategy adaptation for global numerical optimization. IEEE transactions on Evolutionary Computation, 13(2), 398-417.

[66] Roper, S. (1998). Entrepreneurial characteristics, strategic choice and small business performance. *Small Business Economics, 11*(1), 11-24.

[67] Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (2009). Entrepreneurial orientation and business performance: An assessment of past research and suggestions for the future. Entrepreneurship theory and practice, 33(3), 761-787.

[68] Roland-Holst, D. (2002). An overview of PRC's emergence and East Asian trade patterns to 2020.

[69] Roper, S. (1998). Entrepreneurial characteristics, strategic choice and small business performance. *Small Business Economics, 11*(1), 11-24.

[70] Rosa, D., & Purfini, A. P. (2019, November). Analysis Effect Quality of Accounting Information Systems to Support Company Performance. In IOP Conference Series: Materials Science and Engineering (Vol. 662, No. 3, p. 032015). IOP Publishing.

[71] Roscoe, J. T. (1975). Fundamental research statistics for the behavioral sciences [by] John T. Roscoe.

[72] Sacristán-Navarro, M., Gómez-Ansón, S., & Cabeza-García, L. (2011). Family ownership and control, the presence of other large shareholders, and firm performance: Further evidence. Family Business Review, 24(1), 71-93.

[73] Safiriyu, A. M., & Njogo, B. O. (2012). Impact of small and medium scale enterprises in the generation of employment in Lagos State. Kuwait chapter of Arabian journal of business and management review, 33(847), 1-35.

[74] Selvarajan, T. T., Ramamoorthy, N., Flood, P. C., Guthrie, J. P., MacCurtain, S., & Liu, W. (2007). The role of human capital philosophy in promoting firm innovativeness and performance: Test of a causal model. The International Journal of Human Resource Management, 18(8), 1456-1470.

[75] Taouab, O., & Issor, Z. (2019). Firm Performance: Definition and Measurement Models. European Scientific Journal, 15(1), 93-106.

[76] Thrikawala, S. (2011). The determinants of entrepreneurial intention among academics in Sri Lanka. International Proceedings of Economics Development & Research, 4, p454-468.

[77] Tilahun, M. (2019). A Review on Determinants of Accounting Information System Adoption. Science Journal of Business and Management, 7(1), 17.

[78] Uadiale, O. M., & Fagbemi, T. O. (2012). Corporate social responsibility and financial performance in developing economies: The Nigerian experience.

[79] Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. *Academy of management review, 11*(4), 801- 814.

[80] Wadhwa, S., & Parimoo, D. (2016). Impact of vision and mission on organizational performance in Indian context. The Internatıonal Journal of Busıness & Management (4), 12, 165-170.

[81] Watson, L. (2007). Building the future of learning. European journal of education, 42(2), 255-263.

[82] Wijewardena, H., & Tibbits, G. E. (1999). Factors contributing to the growth of small manufacturing firms: data from Australia. *Journal of small business management, 37*(2), 88.

[83] Worthington Jr, E. L., Wade, N. G., Hight, T. L., Ripley, J. S., McCullough, M. E., Berry, J. W., & O'Connor, L. (2003). The Religious Commitment Inventory--10: Development, refinement, and validation of a brief scale for research and counseling. Journal of counseling psychology, 50(1), 84.

[84] Zahra, S. A., & George, G. (1999). Manufacturing strategy and new venture performance: A comparison of independent and corporate ventures in the biotechnology industry. *The Journal of High Technology Management Research, 10*(2), 313-345.

[85] Zaim, H., Yaşar, M. F., & Ünal, Ö. F. (2013). Analyzing the effects of individual competencies on performance: A field study in services industries in Turkey. Journal of Global Strategic Management, 7(2), 67-77.

[86] Zhang, H., Ma, L., Sun, J., Lin, H., & Thürer, M. (2019). Digital Twin in Services and Industrial Product Service Systems: Review and Analysis. Procedia CIRP, 83, 57-60.