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## Computerized Accounting Systems and SMEs Performance in Developing Countries: A Mediating Role of Internal Control System

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### Abstract

The purpose of this study is to examine the mediating role of an internal control system in adopting a computerized accounting system and SMEs performance. Data were collected by sending structured five points Likert scale online questionnaires to the Accounting Professionals of SMEs from the Textile industry of Pakistan. The data was analysed by using Smart PLS 3.2.8 software. The findings of the research show that the Internal Control system partially mediates between computerized accounting systems and organizational performance. Results also indicate that computerized accounting system and internal control system has a significant role to improve organizational performance. The findings support the positive relationship of computerized accounting systems and internal control systems in SMEs of the Textile Industry of Pakistan. Limited research is available on Computerized Accounting Systems in SMEs with mediating role of internal control in emerging economies Managerial Implication, limitations, and future research directions are also discussed.

**Keywords:** computerized accounting system, internal control system, organizational performance, SMEs, emerging economies

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### 1. Introduction

Economies around the world are now dependent on technology for maintaining their business records. There has been constant growth and development in information technology that had about the digital revolution in our daily economic, social, and cultural fields (Guney, 2014). Technological development changed the methods and ways of carrying out task within the scope of accounting transactions this concept is accepted at an international level (Ndekwa,

2014). This paperless accounting systems saves times, energy and yield sustained profits (Teru, Idoko & Bello, 2019). Thus, it has become increasingly necessary for all businesses to incorporate software based electronic accounting systems to operate successfully, with efficiency and effectiveness (Smith, 1997). Similarly, SMEs are generally characterized by limited scale of their business operations (Hajera, 2016). SMEs play important role in

economic development by generating employment and rural development across the world (Soudani, 2013). Previously used traditional, paper-based systems were in practice by SMEs due to their limited capacity. And in fact, in underdeveloped areas like Karachi, no system is present to record transaction and it is all based on operations and working. But adoption of software-based accounting system positively impacts on various internal control systems which directly impacts on yielding of sustained profits.

Much research has been done on the similar topic of the impact of Computerized Accounting Systems (CAS) on the profit margins and overall performance of Small Medium Enterprises (SMEs). The main areas of these studies are Accounting Information System and Organizational Performance. (Ganyam & Ivungu, 2019), Adoption of computerized accounting systems by SMEs (Windrum & Berranger, 2002), electronic accounting system and business environment (Khudir, 2016), impact of electronic Accounting Systems on Financial Performance (Soudani, 2013) and electronic commerce and organizational performance (Jahanshahi et al., 2012).

Despite of having widespread knowledge about the significance of accounting systems still the research on the impact of Computerized Accounting System on the performance of SMEs has been limited. Jahanshahi et al. (2012) have argued that there is a need of identifying the mediating variable to find the impact of adoption of computerized accounting systems on the profit margins of SMEs. So, the purpose of this research is to find out the relationship

between computerized accounting systems and organizational performance with the mediating role of Internal Control system in SMEs.

This research is not limited to the relationship between the computerized accounting systems and performance of SMEs, but this study contributes to the literature that is the role that Internal Control System plays between the adoption of Computerized Accounting System and the organizational performance of SMEs. This study also has various theoretical contributions that, SMEs can get aware about the importance of implementing CAS, as it directly impacts the profit margins and performance. This will also help the society and economy to predict the future growth because small and medium enterprises play an important role in the dynamic economy. Due to the lack of knowledge about the electronic accounting systems, SMEs are facing difficulty regarding accounting management which is overall affecting their profitability and organizational performance (Zakaria et al., 2011.) As Kharuddin et al. (2010) have discussed that many businesses are failing because of the traditional accounting practices in the businesses. SMEs are struggling to maintain their profits but most of the SMEs are unaware of the fact that the performance can be better managed by adopting computerized accounting system within the businesses (Chhabra & Pattanyak, 2014). Due to technological advancements, the processes used to operate businesses have been changed (Hall, 2007). Today's business transactions need modern solutions and for that it has become necessary to implement such computerized

accounting system to enhance organizational and financial performance (Gunev, 2014). As SMEs contribute to the economic growth and development therefore, it's really important for them to adopt such systems which can help in improving the profitability otherwise the SMEs won't be able to keep record of the transactions which will affect them to compete in this digital world (Hernandez, 2020). The solution is to fill this gap between the traditional and electronic Accounting, and to understand the importance of adopting software based accounting system and implementing it for the profit maximization and to keep track of the transactions in a systematic way (Turner, 2020). As computerized accounting systems are meant to process business more fastly and efficiently this will save time and cost to a greater extent, and which is beneficial for SMEs in every manner (Teru et al., 2019). We have the following objectives designed for this research.

1. To find out the relationship between computerized accounting system and organizational performance
2. To find out the relationship between Computerized Accounting system and Internal Control system.
3. To find out the relationship between Internal Control System and organizational performance.
4. To find out the mediating role of Internal Control System between computerized accounting system and organizational performance.

## **1.Theory and Hypothesis Development**

Goodhue et al. (1995) presented the study of 'task-system fit' which explains the extent at which an information system assists the employees in performing their respective tasks. The study describes that there should be a good match between the information technology and the users' tasks so that it would directly improve the performance of the firm (Goodhue et al., 1995). In 2006, Jain suggested that the stronger the fit between the information technology and needs of the user the higher the contribution it makes to the performance of the organization (Jain et. al., 2006). Moreover, the task system fit was later defined by Marsrek as how well the function of technology is met to the needs of the users (Masrek et. al., 2007). According to Ling-Fang (2007) because of the rapid implementation of computerized accounting systems, the functions of accounting and financial management operations are now changed which makes it easier for the accountants to meet their requirements efficiently. But on the other hand CAS also has a chance to come up with uncertainties, challenges and risks (Ling-fang, 2007), employees or accountants with less knowledge about the systems can face problems (banker, 2002), therefore it's necessary to integrate an effective internal control system along with the technology to minimize risks and uncertainties and increase the firm's overall performance (Rodin-brown 2008).

### **1.1. Computerized Accounting Systems**

Computerized accounting system (CAS) is defined as the electronic accounting that is dependent on the computer technology for

processing all the data related to finance of the organization (Laudon, 2011). The main purpose of electronic Accounting system is to record, analyse, monitor and evaluate the financial performance of the business (Dalci & Tanis, 2002). It is designed to integrate all day-to-day operations involved in business and processes easily, cost effectively and it has the capacity to manage large amount of data automatically (Wang & Huynh, 2013). Such systems act as the 'engine of growth' for many organizations when it comes to the corporate reporting (Frenzel, 2006). Many organizations have realized that the financial performance has been improved after implementing the electronic based accounting and reports are being generated more efficiently and quickly system. (Hotch, 1992). The reports are prepared and presented to the top-level management which is beneficial for the decision making (Kieso, 2017). It makes the management to make decisions based on those reports for the future and the profits, liquidity and financial ratios can be assessed better (Bryant et al., 2012). It requires the efficient networks of intranet and internet, for the effective data and activity exchange and smooth implementation of CAS therefore, the role of these networks cannot be ignored. (Hajera, 2016). The Computerized Accounting System consists of the six components which are the individuals or users who operate the system, instruction and Processes which are the methods to manage and gather the information, Information; the data which is related to the business operation and the organizational environment, Software; Application for managing the organizational data,

Infrastructure of Information Technology; equipment related to execute CAS, Security Measure and Internal Control; responsible for the protection of the data of organization (Khudir, 2016).

## **1.2. Internal Control System**

Internal control System or ICS is the set of various components of an organization that helps the organization to achieve its goals and objectives Yukcu & Gomen (2012). Internal control system basically includes all human and non-human capital, rules, regulations, policies, implications, organization's insight everything that works together to form a system (Nandan, 2010) Internal Control System is the most effective part of organization it impacts on every factor associated with organization (Vijayakumar & Nagaraja, 2012). In our study we have used ICS as a mediating variable between main variables of Computerized accounting and Profits of SMEs.

The determinants of ICS are human Capital; Labor or Human Working force of an organization is termed as Human Capital; it is the main ingredient of ICS. (Nuryanto & Afiah, 2013), non-human capital; This includes property or workplace, plant, machinery, capital etc. that works by Human Capital to serve as the System. (Janvrin et al., 2008) control procedures; Internal Control System is only able to be maintained under control procedures. These are activities which are undertaken to form policies to be implemented. (Meulbroek, 2002), control environment; the ground ingredient of ICS is the Control Environment. It affects organization the most.

Unhealthy, uncontrollable environment won't provide the grounds for the maintenance of the Internal Control System (Roslan & Dahan, 2013).

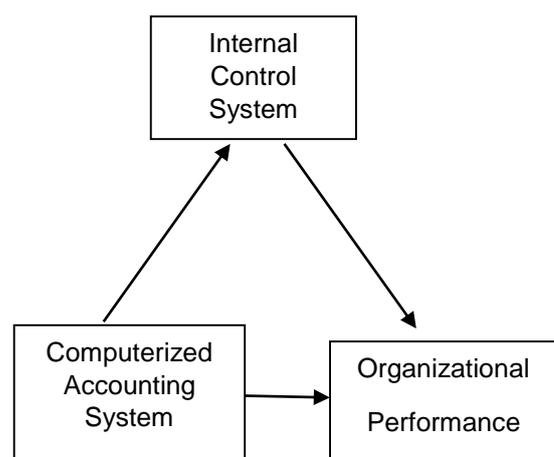
### 1.3. Organizational Performance

Performance is concerned with the ability and of the firm to efficiently makes use of available means to achieve goals and objectives (Ibrahim, 2019); (Ogundana, 2012) stated that performance is used to measure or evaluate the success of any business. According to (GlautieSr & Underdoon, 2009) profit is mostly used to determine the performance, but many businesses use various variables such as effectiveness, efficiency, quality, and productivity to measure the performance. Organizational Performance refers as the results (output) of any organization after an investment (input) with the passage of time (James, 2012). SMEs have increased their concerns for the overall performance than before. There are many ways from which the performance of SMEs can be determined. The four types of performance in SMEs are i) Human Resource outcomes; which involves the turnover and job satisfaction, ii) Organizational outcomes which includes service, quality, and productivity, iii) Financial outcomes; it includes Return on assets and profitability and finally iv) Capital Market outcomes which includes growth and stock price (Dyer & Reeves, 1995). High Level of performance is necessary and contributes in effective planning and management (Ahmed, Zakaree & Kolawole,

2016). The two common types of performance are

- i) operational Performance which deals with the non-financial results and the
- ii) organizational performance which refers to the financial outcomes of the business activities (Malik, 2013). Dumitru & Glavan (2010) defined the three dimensions of performance as
  - i) Performance Result, which is also called as financial performance it is a comparison between the outcomes achieved and the objectives.
  - ii) Performance action; processes and procedure employed to achieve objectives.
  - iii) Performance success; it is dependent on the representation of goals and objectives.

**Figure 1. Research Framework**



## **2.4 Computerized Accounting Systems and Performance**

With the period, Information Technology has emerged and there are many organizations that are dependent on computerized accounting systems to execute daily business transactions and managing statements (Ghani, 2012). However, the traditional approaches towards financial management were done manually which had many chances of mistakes and thus contributed to unauthentic information (Mohammed, et. Al., 2011). Computerized accounting is a term described as the system of accounting which is dependent on the technology for processing information related to finance in the businesses (Amidu & Abor, 2011). The main purpose of computerized accounting system is to record, analyse, monitor and evaluate the financial performance of the business (Qasim & Mohammed, 2004). It is designed to integrate all day-to-day operations involved in business and processes easily, cost effectively and it has the capacity to manage large amounts of data automatically (Wang & Huynh, 2013). Implementing Computerized accounting systems in the organization minimizes the chances of error and increases accuracy and efficiency and performance which makes it easy to predict the future for growth and profitability (Patel, 2015). Such systems act as the 'engine of growth' for many organizations when it comes to the corporate reporting (Frenzel, 2006). Many organizations have realized that the performance has been improved after implementing the computerized based

accounting and reports are being generated more efficiently and quickly. (Hotch, 1992). The reports are prepared and presented to the top-level management (Kieso, et al., 2017), which allows the management to make decisions based on those reports for the future and the profits, liquidity and financial ratios can be assessed better (Matt, 2005).

**H1:** *There is a positive relationship between computerized accounting system and organizational Performance*

### **1.4. Computerized Accounting Systems and Internal Control System**

Internal Control System is used to achieve certain goals and objectives of an organization and the structure of organization, workflow, people, and Management Information System are the factors which influences the internal control system (Anderson, 2008). Internal Control System is effective in identifying errors and preventing it in the future, thus it helps in protecting organization's tangible (machinery and property) and intangible (reputation) assets (Hermanson, 2000). (Sawyer, 2003) described the importance of internal control system in financial reporting and defined Internal auditing as the objective appraisal from the internal auditors of various operations and controls the organization to find out that:

i) whether the financial information is reliable.

ii) enterprise risks are detected and prevented.

iii) both internal and external policies are followed.

There is a need to monitor and observe the Internal Control System so that the quality of financial performance can be improved with the passage of time (Rezaee, 2001). Effective Internal Control System indicates that the organization is on the right track to achieve goals and objectives (Benita, 2010). Computerized accounting systems are responsible for various tasks which involves extracting, processing, and storing data, and the processed data is used for decision making (Qasim, 2004), but the authenticity of that information is achieved by adopting the internal control processes (Karagiorgos et. al., 2009)

**H2:** *There is a positive relationship between computerized accounting systems and internal control system.*

### **1.5. Internal Control System and Performance**

Internal Control refers to the dynamic process that is rapidly accepting the changes made in any organization therefore the management must be involved so that the risks can be identified, and the goals and objectives of the organization can be achieved (Soudani, 2013). According to Gupta (2001) Internal control is the plan of an organization to adopt the processes which helps in the achievement of the goals, it makes the business operations efficient by making sure to adhere management policies, identify and prevent any errors or

fraud, increases the accuracy, reliability of accounting results. An efficient internal control system has a positive impact on the performance because the internal control system is meant to identify the errors or fraud and to rectify it on time this is the reason why organizations give stress on internal audit to boost the financial performance (COSO, 2008). (Wijewardena et. al., 2004) says that the effective ICS contributes to the profitability and overall performance of the firms. The basic responsibility of achieving the goals and objectives of the firm is better done by employing a good corporate governance or integrating effective internal control system which involves all the processes to make each part of an organization to work to fulfil those objectives (Eiseberg, 1998). The loss in any business indicates that there is poor internal control system (Krishnan, 2005). According to Tomas et. at. (2009) Internal control not only minimizes risks and losses, but it assures that the financial statements are reliable in compliance with the external and internal laws. The financial statements serve the managers as a beneficial tool to determine the financial performance and profitability (Jamis, 2011) important for the managers.

**H3:** *There is a positive relationship between Internal Control system and Organizational Performance.*

### **1.6. The Mediating Role of Internal Control System**

International standard on auditing, ISA 315, defined ICS as a process which is adopted and maintained by the managerial personnel

for the attainment of the goals of organization, increases the accuracy of financial reporting and efficiency of business operations (Hussain & Bhatti, 2010). The goals of the ICS are interconnected and all of them aims to improve the well-being of the organization (Hermanson & Rittenberg, 2003). Kithaka (2014) states that effective ICS can help earn the competitive advantage for the businesses in today's world. Managers should have a proper understanding of the internal control system of the organization and adopt ways to manage it effectively because it affects directly to the performance of the organization. (Wali & Masmoudi, 2020). It is said that the financial performance of the businesses which has good internal control system is better than the businesses which have poor internal control system (Chirwa, 2003). Tseng (2007) says that the organizations have lower market value if there is no proper integration of internal control system. ICS includes five major elements which includes

i) Control Environment, Control Activities, Risk Assessments, Information Communication, and monitoring (Tetteh, et. al., 2020) These elements are interlinked, and they interact each other and these elements are considered to increase the financial performance of and therefore should be linked to the implementation and maintenance of computerized accounting systems. (Sahabi, et al., 2017). A good Internal control system is required for effective implementation of computerized accounting system in any organization (Jensen, 2011) and that computerized accounting system is responsible to provide

consistence and reliable information about the performance including the profitability based on it, the management make decisions (Jeffrey et. al., 2007). Authentic information increases the efficiency, consistency and provides internal control in the organization (Muraleetharan, 2013).

**H4:** *There is a mediating role of ICS between Computerized accounting systems and Organizational Performance.*

## **2. Research Method**

The study adopted quantitative approach, mono method for the research methodology. This study is cross-sectional study since it will not be repeated in future. Survey method has been used in which the online questionnaire was sent to the Finance Managers and Accountants of different SMEs of textile industry of Karachi who have adopted Computerized Accounting system. The target population in this study are the SMEs of textile industry in Karachi which have adopted computerized accounting system.

The research contains the use of primary data; non-probability convenience sampling is used for the formation of questionnaire. Since the population is unknown, so we have used variable approach suggested by (Saunders, Lewis & Thornhill 2009), in which number of variables are multiplied by 40. This study has 3 variables, so we have calculated the sample size, thereby  $3 * 40$  to get the estimated sample of 120. The estimated sample is 120 and therefore the questionnaire will be filled by 120 respondents including the Accountants and

Finance Manager who uses the Computerized Accounting System on daily basis in SMEs of Karachi. 5 Points Likert scale is being used, as this makes the individuals to express the intensity of their feelings (Churchill, 2001). Respondents are asked to rate the questionnaire on the scale of 5 where 1 denotes 'Strongly disagree' and 5 denotes 'strongly agree'. Our questionnaire is divided into four sections.

The Section A is the bio data which includes age, gender, marital status, and the duration of working in the SMEs. The Section B is based on the Computerized Accounting System which is the independent variable, and it is adopted from (Soudani, 2013), total 6 questions were there for Computerized Accounting System and all of them were adopted. The Section C is based on dependent variable that is Organizational Performance it is also extracted from (Soudani, 2013) total six questions were written and all of them are adopted. The last Section D is of Internal Control system which is the mediating variable is extracted from (Zakaria et al., 2011) also there were 6 questions in this section, and we have adopted all of them.

### **3.1 Statistical Analysis**

For data analysis we have used the Smart PLS Software of version 3.2.8. The values of multicollinearity, linearity and normality have been analysed. We have analysed different assessments criteria which includes the measurement model in which the reliability of items, internal consistency and convergent validity and discriminant validity have been examined. In the structural model, the

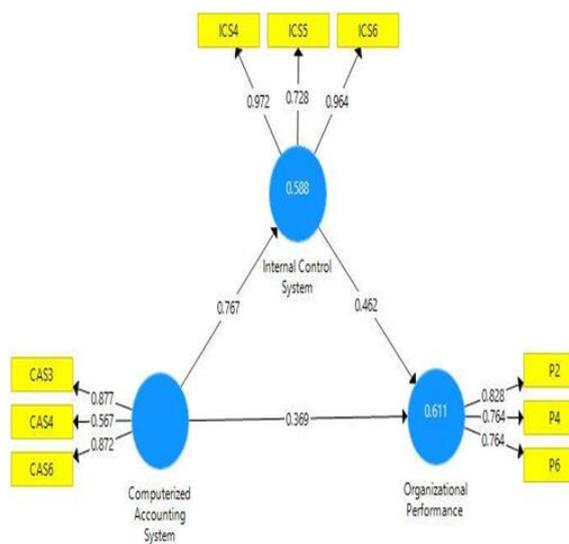
dependent and independent relationship have been analysed by executing bootstrapping. Also, the direct relationship and mediating relation has also been assessed in the research. Moreover, the blindfolding test has also been executed to check the predictive relevance.

### **3. Results**

We have adopted psychometric properties of scale in the study. In checking reliability of individual item, internal consistency, convergent validity, and discriminant validity are analysed, (Hair et al., 2002). Reliability analysis is conducted to determine the internal consistency and to know the consistency of instrument (Ary et al., 2002). The values of Cronbach's alpha are used to assess the internal consistency (Ary et al., 2002; Pallant 2001; Huck 2004). In standardized terms value of Cronbach's Alpha varies between 0 and 1 and 1 is considered as the perfect (Bell & Bryman, 2011), whereas values below 0.6 is left unconsidered and supposed to be omitted (Malhotra, 2010). Table 1 contains value of Cronbach's Alpha of each variable among which 0.87 is the highest value of Cronbach's Alpha which is of Internal Control System (ICS), followed by Organizational Performance (OP) with 0.76 Cronbach's alpha value and the value of Cronbach's alpha of Computerized accounting system (CAS) is 0.68. Hence all respective values of Cronbach's Alpha are greater than 0.65 which is Standard value (Hair et al., 2006) which shows reliability and internal consistency of data. Table 1 shows Reliability analysis of all variables are

included in this study. As the values are greater than 0.7, establishing internal reliability. Three measures- CAS1, CAS2 and CAS5 from sub constructs of CAS along with ICS1, ICS2, ICS3 from ICS's sub-constructs and OP1, OP3 and OP5 of OP are omitted in Table 1. Out of total eighteen items, 9 items were omitted, by this omission the AVE and CR has increased above the recommended valued of 0.50 and 0.70 respectively (Hair et al., 2013). After omitting the items, which were not aligned with the requirement of being greater than 0.70, the final model is shown in Fig 1.

**Figure 2. Measurement Model**



**Table 1: Outer Loadings, Alpha, Composite Reliability and Average Variance Extracted**

Constructs	Items	Outer loadings	Cronbach's Alpha	CR	AVE
Computerized Accounting Systems	CAS3	0.87	0.68	0.82	0.62
	CAS4	0.56			
	CAS6	0.87			
Internal control system	ICS4	0.97	0.87	0.92	0.8
	ICS5	0.72			
	ICS6	0.96			
Performance	P2	0.82	0.76	0.83	0.62
	P4	0.76			
	P6	0.76			

**3.1. Convergent and Discriminant Validity**

AVE is calculated to verify convergent validity. AVE of all three variables used in this study present in table 1. The values should be greater than 0.50 (Hair et al., 2006) in this way convergent validity is maintained. The highest value of ICS with AVE 0.80 is very good whereas both other variables CAS and OP got similar AVE of 0.62 which is greater than 0.5 and are adequate for convergent validity. The square root of AVE constructs should be higher than the value of constructs. The value of correlation must be greater than the relation of variable with other variables. As the greater value shows Validate Discrimination. Fornell & Larcker (1981) described the measurement criteria called Cross Loading Criteria. Table 2 of Discriminant validity shows the relation of each variable with itself and with other variables. It shows that the variable ICS with highest correlation value of 0.89. Other two variables, CAS and OP have greater correlation value with each other in comparison to their latent variable relations.

**Table 2: Discriminant Validity**

Latent Variable	CAS	ICS	OP
CAS	0.78		
ICS	0.76	0.89	
OP	0.72	0.74	0.78

### 3.2. Hypothesis Testing

Structural or inner model tells relation between Independent and dependent variables. There are two ways to measure the structural model, first by estimating the direct relationship and inclusion of mediating variable to calculate the buffering strength. (Hair et al., 2014). Bootstrapping is run to examine the relationship between latent variables and to estimate the t values in PLS SEM. Fig. 2 shows the t values above the arrows and indicating significant and non-significant relationships. The main objective of running bootstrapping is to get the standard error of coefficient to further examine the statistical significance of coefficients (Vinzi et al., 2010). Table 3 shows direct and mediating effect of each pair of variable bootstrap t-values of all variables.

The t values in table 3 shows that each relation is significant. All significant relations have been hypothesized positively the relation between computerized accounting system (CAS) with internal control system (ICS) came out to be most significant with the t-value of 16.89 and p value of 0.00 (CAS → ICS) followed by relation of ICS with Organizational Performance (OP), (ICS → OP) with the t value of 5.38 and p value of 0.00 which is significant relationship and the relationship between Computerized Accounting Systems and Organizational Performance has also a significant relationship (CAS → OP) with t value of 3.83 and p value of 0.00.

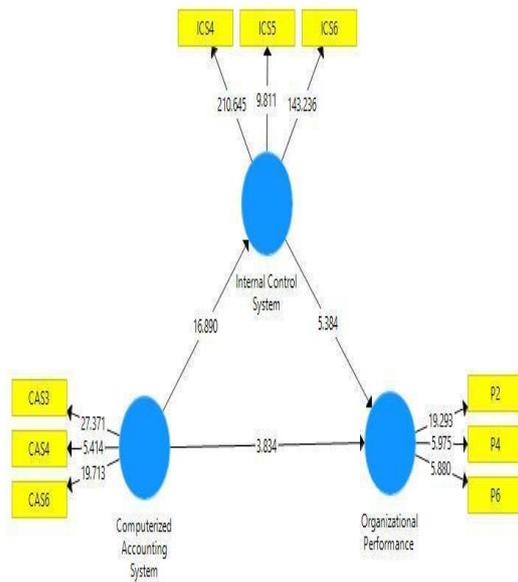
Mediating analysis of variable has been tested to determine causal relation between Independent and dependent variables by addition of third mediating variable (Hair et al., 2013). The most adequate method to analyse mediating effect is through PLS-SEM (Hair et al., 2013). Bootstrapping can be easily applied even at samples of small sizes. By adding mediating variable direct effect can be reduced but remains significant this mediation effect is known as 'Partial mediation'. And if the direct relationship becomes non-significant then the mediation effect is referred as complete mediation. The bootstrapping procedures are applied on 499 cases to measure the mediating effect of Internal Control System on the relationship of computerized accounting system with Organizational Performance.

Table 3 shows the mediating effect between the dependent and independent variables. Bootstrapping procedures of the mediation effect of Internal control system on Computerized Accounting system and Organizational Performance is significant (p = 0.00).

**Table 3: Direct and Mediating Effect**

Hypothesis	variables	Beta	T-Value	p .	Decision
DIRECT EFFECT					
H2	CAS -> ICS	0.77	16.89	0	Supported
H1	CAS-> OP	0.37	3.83	0	Supported
H3	ICS -> OP	0.46	5.38	0	Supported
MEDIATING EFFECT					
H4	CAS-> ICS-> OP	0.35	4.76	0	Supported

**Figure 3. Structural Model**



**3.3. Quality of Model**

The structural model is determined by  $R^2$ , which calculates the projecting accuracy of model. The research findings show that 61.1 percent variance in Organizational Performance has been explained by direct effect model. And the mediating model resulted in 58.8 percent of variance in the dependent variable of Organizational Performance. According to Miller & Falk (1992), 0.10 is the acceptable value of  $R^2$ . Hair et al. (2014) suggested that the  $R^2$  value of 0.25 is considered as low, 0.50 is reasonable and 0.75 is the significant value. The change in  $R^2$  square is calculated by effect size  $f$  square. According to Cohen (1988) the  $f^2$  value of 0.02 has the smallest effect, 0.15 has medium effect and 0.35 has the largest effect. The results indicate that internal control System has high effect on performance as  $f^2$  value is 0.22 and the effect of Computerized Accounting System is small with the value of 0.14.

Blindfolding effect is also used in to evaluate the predictive relevance of the research model. According to Hensler et al. (2009) when Q-square value is greater than zero, this is said to be that it has the sufficient predictive relevance it means higher the Q-square value, higher the predictive relevance. The results indicate 0.27 for direct and 0.43 for mediating effect Q2 statistics, Predictive relevance is suggested.

**4. Discussion**

The core motive of this research was to study the importance of adopting Computerized Accounting System (CAS) and to find out the mediating effect of Internal Control System (ICS) on the Performance of Small Medium Enterprises (SMEs) in Karachi. Findings of this study have been discussed based on research hypotheses.

In this research we have studied the relation between Computerized Accounting System (CAS) and Organizational Performance (OP) of SMEs in Hypothesis (H1), relation between Computerized Accounting System (CAS) and Internal Control System (ICS) in (H2), relation between Internal Control System (ICS) and Organizational Performance (OP) in (H3) and Mediating role of Internal Control System (ICS) on the relation of Computerized Accounting System CAS and Organizational Performance (OP) of SMEs. To study the relationship between Computerized Accounting System and Organizational Performance the results developed, the study conducted by Mohammad et al.

(2011) have been undertaken which states the importance of adopting CAS to avoid manual mistakes and improved performance. The findings of our study support Hypothesis 1 and it is found that CAS has positive relation with The Performance of SMEs. Computerized Accounting System analyze, records, monitor and evaluate Organizational performance of business more quickly and accurately as compared to manual systems (Wang & Huynh, 2013). Also, the other reference given in literature in the same context of positive relation between two variables all proved out to be correct as per our calculations. The results concluded that the effectiveness, efficiency, reliability, accuracy, and several other factors associated with CAS impacts positively on the overall Performance of firm, it is also proved by (Amidu & Abor, 2011) and (Qasim & Mohammad, 2004) according to their respective studies they have taken.

The Relationship between CAS and ICS was proved to be positive in the study conducted by Sawyer (2003), which stood still in our research as he describes the importance of ICS in accurate financial reporting (Ghani, 2012). And as per the findings of our report the proposed relation found to be existing, and thus Hypothesis 2 of our study got supported results. ICS is the main ingredient to track the performance of any organization, concluded in the study conducted by Gupta (2001). Performance of firms varies directly with ICS (Krishnan, 2005). These ideas about the direct relation of Internal Control System and Organizational Performance have been tested in Hypothesis 3 of our

study and the obtained results indicate these views to be proven right. Study of COSO conducted in 2008 also concluded similar results of direct relation between ICS and Organizational Performance. It also stated that continuous improvement in ICS is necessary to boost performance (COSO, 2008). According to Wijewardena et al., (2004) different determinants of ICS and most importantly Human resource of SMEs improve their respective efficiencies all of them together improves performance of SMEs.

The Mediating variable of ICS possesses a vital role in improving performance of SMEs by adoption of CAS. Because ISA 315 mentions ICS as a process which if maintained can be used for the achievement of goal. The research findings support Hypothesis 4 which we formed in the context to check mediating effect of ICS as suggested in the study by Wali & Masmoudi (2020). Findings of study by Chirwa (2003) is found to be accurate in the direct relation proposed that firms with poor ICS meant to have disturbed performance. The five discussed determinants of ICS which we have considered because of the study of (Tetteh, et. al., 2020) are Control environment, Control Activity, Risk assessment, Information Communication and Monitoring. These interlinked determinants are considered to directly contribute to the overall performance of SMEs as per our findings of study concluded. As per (Sahaba et al., 2017) it is the ICS which makes it possible to properly implement CAS and maintain it, without flexible ICS no firm can bring out efficiency from CAS.

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

The study aims to provide the solution to the problem which SMEs are facing these days of obtaining the desired level of overall performance. Since SMEs aims to improve the performance and for that reason, they invest in different areas, but it is equally important to take into the consideration the factors that directly helps them to increase the overall performance. The performance of organizations is measured so that the management can know that whether the goals and objectives of the organization are being met or not (Itang, 2020).

SMEs need to increase the performance from time to time, to grow potentially and expand the business which is important to compete in the market. For that reason, it is important to focus on the aspects which are explored in other studies and this study is one of them. Finance Managers and Accountants can use the model presented in the study to understand the importance of adopting of Computerized Accounting system, this can improve the overall performance. There are various benefits of implementing Computerized Accounting systems within the organizations. According to Kharuddin et al., (2010) the old methods of manual accounting are creating problems to cope up with the challenges of today's world like data handling and its security, but the emergence of computerized accounting has have accelerated the accuracy, effectiveness and it contributes to improving the overall performance of the organization. Therefore, this research is useful for SMEs which are aimed to increase the overall

performance and develop organizational capabilities.

The study reveals that in majority of the SMEs, many respondents were not having enough knowledge to run the Computerized Accounting systems software and it was new for them. Many participants were not aware of the advantages and challenges regarding the CAS software. Thus, it is really important for the employers to understand that what are the important factors which helps in increasing the performance and whether these changes with the time. Employers have to plan and integrate such kind of activities within the organization to make the employees compatible with the systems.

The present study has proved that adoption of Computerized Accounting systems plays a very important role in improving the overall organizational performance. Therefore, SMEs are required to make efforts to demonstrate the employees by making them aware the benefits of such systems and fasten the adoption process. SMEs faces many challenges in terms of improving the performance that is why it is required to convert such challenges into opportunities by adopting Computerized Accounting systems.

#### **5. Conclusion**

After gathering and analysing data it can be concluded that technological advancements have positive affect on the success of businesses. The evidence from the findings shows that the adoption of Computerized Accounting systems increases the accuracy, effectiveness,

saves time, minimizes error and enhances overall performance of the organization which is essential in order to survive as a business entity. It is also observed that by implementing such system, the SMEs gained both financial and non-financial benefits and the record-keeping, tracking, and generating reports have become much easier. The findings of research of the tested hypothesis shows that organizational performance can be achieved when organizations adopt computerized accounting systems and make the employees learn to run such software so that the whole system including people and software can work simultaneously in order to achieve goals and objectives.

There is a need for SMEs to develop and implement certain strategies to ensure that there is a proper implementation of CAS so that the performance goals can be achieved because it has now become the competitive necessity to have good performance in order to survive in this competitive environment. To conclude, the research area is relevant for the SMEs and Finance and Accounting managers because the decision of implementing such systems within the organization requires investing in adoption and making it familiar with the employees who are going to make use of it. To improve the overall performance of the SMEs it has to meet the requirements of Computerized accounting system. The study has contributed to better understanding of the importance of adopting Computerized Accounting system. The results of the study can be used as a preliminary point for the future researches and this model can be used in the daily life practices.

### **5.1. Limitations and Future Research Directions**

The combination of variables we adopted to conduct our study have significant practical implications. We have tried to meet all bounds to carry out this research but still there are certain limitations of our research, for which we suggest to future researchers to take into consideration in order to extend this study with more interesting effects. Firstly, we have conducted this study on textile industry and rest of the industrial sectors are left. We suggest the future researchers to conduct research on the impact of Computerized Accounting systems on performance of SMEs belonging to other different sectors, not only SMEs other companies' performance can also be taken into consideration. Secondly, this study was limited to the SMEs of Karachi only, therefore it is also suggested to conduct the study in other cities of Pakistan. Other limitations to this study includes the fact that the sample size is limited to 120, to extract more accurate results the sample size can be increased. Moreover, our study has examined the adoption of Computerized Accounting systems in SMEs highlighting, a few factors but other factors does influence the organizational performance as well, therefore it is suggested that other factors can also be discovered which contributes in improving the performance of the SMEs.

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