The Impact Of Digitalization On Business Models With Special Reference To Management Accounting In Small And Medium Enterprises In Colombo District

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Abstract : There has been a significant extent of interest for researches with regard to the dynamic role of management accounting of economic entities during the last decade. The research indicates that it has lost some relevancy for the users of management accounting and other information. There was an abundance of researches by focusing dynamics of management accounting systems, changes in approaches and procedures. The article aims to explore how digitalization has affected small-medium enterprises in Colombo district to investigate with the business models (BM) and in order to explore the contribution to practices in management accounting. An exploratory study has been carried on 155 small and medium enterprises which are vigorously using technologies to change their business models. Findings show that strategy, technology, communication and innovation economics has a favorable influence on a business model and there is a mediation impact of business model practices and the independent variables have a direct effect on management accounting practices. Results of the analysis can be used by all levels of managers and top-level executives to obtain a better knowledge of how entities investigate with business models experimentation and how it affects management accounting procedures. The analysis is one of the first research contributions for analyzing the effect of digitalization on business models with special reference to management accounting.

Keywords : Digitalization, Strategy, Technology, Communication, Innovation Economics, Business model experimentation, management accounting practices.

1. INTRODUCTION

Small and medium enterprises (SMEs) has a larger role in the economy of Sri Lanka. It is about 80% of all trading firms. There are small and medium enterprises in the agricultural field take part in cultivating spices, fruits and vegetables. As well as in the manufacturing field take part in various industrial businesses and it is about 20% of industrial establishments. These can be discovered in every field of the economy and provide occupational opportunities for persons who have various capabilities. Small and Medium enterprises play a significant task in promoting inclusive improvement by making a contribution to increasing the Gross Domestic Product(GDP). For developing countries, Small and Medium-scale Enterprises are much significant element in the economy. Small and Medium Enterprises are the foundation of a country for its economic growth [25; 54; 63]. Meanwhile, DOP (Department of posts) implemented an e-commerce development activity plan to encourage SMEs to access the international market and sell their products online [17]. Accounting particulars is much significant as it can assist entities' to handle their short-term issues in important spheres such as costing, outgoings, cash flow and able to evaluate the performance by delivering a data to support monitoring and control activities. Small and Medium Enterprises are requiring satisfactory and also knowledgeable and important management accounting techniques and systems like large firms. This is to manage meagre resources and improve consumer and other stakeholder merits. Regardless of the socio-economic significance of SMEs, provision for management accounting particulars and data as well as management accounting research vitalities in are both lacking [43; 55; 62]. Hence the financial reporting system is necessary to assure that the SMEs commercial assets are efficient in achieving its aspirations and objectives. The dynamic economic climate is much complicated: merchandise differentiation has enhanced and the expenditure constructs have become highly overhead intensive propelled by tasks, the worth of non-financial symbols have enhanced and growth of the service division is remarkable [73]. The preceding dynamics make management accounting an incessantly developing craft. Accounting is the process of recording of monetary affairs and also accumulating, classifying, fetching, recapitulating, and submitting the data in various statements. Financial accounting should be there to assure that a business has a certified way of recording business proceedings. Every single company has a business model and sometimes the model is definitively articulated or not [19; 78]. There is a requirement for business models due to the characteristics of market economies where there is customer selection, transactions expenditures, variability amidst consumers and suppliers, and rivalry [78]. According to [15] the publications per year exploded in the middle of the last decade and more than two-thirds (n=953) of all 1516 recognized articles were published since 2010. This reflects the rising popularity of the main constructs digitization and business model. On one hand, new possibilities evoke, but on the other hand, there could be threats for existing companies [50]. This will moderate the economic and societal environment drastically and requires adoption to this megatrend.

2. PROBLEM STATEMENT

Sri Lanka is propitious to commence micro, small and medium firms for social and economic growth. The petty trading businesses in rural regions in a country are a major base of job opportunities and manufacturing, agriculture and so on. The succeeding governments have been paying considerable importance for the development of small and medium scale entities since independent [74]. A vigorous SME stratum is compulsory for the growth of developing countries in order to face present competition and challenges in the global environment. Support from other

sections of society is essential for the continuation of the SME sector in developing countries [74]. Digitalization is the combination of digital technologies into day to day life. Consequently, adoption of appropriate digital technologies has profound implications for planning as well as implementation to assist the dynamics of the business model. Digitalization will change business entities. To maintain these heavy aspirations and to perform better than rivalries, entities have to take on digitalization tactics. Researches propose that SMEs in the manufacturing industry have no sufficient tactics and techniques. This discloses a hiatus or blanks in the study when perceiving digitalization in manufacturing sector SMEs.Another hiatus in the present study on digitalization is the former researches have focal point on embraced digital technologies. But do not focus sufficiently on the much significant side, which is the institutional alterations that entities do, or need to make for the purpose of obtaining advantages of these technologies [57].It is an advantage for current studies to carry an institutional alterations perspective on digitalization with regard to SMEs.This conveys that researchers should investigate the reasons why SMEs use digitalization to transform aspects of their business as well as to investigate the methodologies to be followed. The main issue of digital business models and processes is the inability to just transform ongoing business models and processes into digitalized business models [31]. From highly digitally focused competition will create pressure from the side of the customers. It is another cause for industries to do their conversions speedily. So in here, the researcher is focusing on why some manufacturing SMEs are not transforming to digitalized business models and what are the factors affecting to business model experimentation by basically considering four variables like strategy, technology, communication and innovation economics. And the effect of digitalization on management accounting practices. And there is a problem whether this business model experimentation affects for the management accounting practices to improve in future due to digitalization.

3. LITERATURE REVIEW

In this paper, we shortly deliberate some insights from the digitalization of business models literature. Digitalization and the digitization are two concepts in literature. Digitization is the technical procedures of embedding digital artefacts into technological objects.(eg.an iPhone exertion) and the outcomes are known as digitized artefacts [66]. Digitalization is a modern concept that involves in the business world. Transformation into digitalization is interpreted as the proceeding which is utilized to reorient economy, organizations and community on a system level [12; 79]. The companies who are failing to align their digital business strategy to the competitive environment will have to face some severe issues. Digital technologies can be described as “combinations of information, computing communication and connectivity technologies” [8]. There is a connection among digitalized technique deployment and management accounting [3]. In accordance with Gartner’s IT glossary, “Digitization is the process of changing from analogue to digital form”. Digitalization doesn’t have a single, clear definition like digitization. According to the explanation [13] “There are two different concepts known as digitization and digitalization and are meticulously interrelated and widely used synonymously in a wide span of literature’. It has propped the interpretation for digitalization on life in society or the way people are interconnected [13]. These connections evacuated analogue technologies to digitalized technologies. With regard to Gartner’s glossary, “Digitalization is the use of digital technologies to change a business model and provide new income and value creative opportunities”. The Gartner definition touches the question of what is meant by a ‘digital business’ and it interpreted as the generation of up to date business models by combining digital and physical worlds’’. The first contemporaneous use of the word “digitalization” together with computerization seem in 1971 in an essay published firstly in the North American Review. In it, [70] scrutinize the social implications of the “digitalization of society” in the area of concerning objections as well as possibilities for, computer-aided humanities project. During the past few years, global entities faced technological alterations that paved to circumstances like higher adaptability, responsiveness and artefact individuality as well as challenges like expeditious technological changes, increase in complication and changing consumer choices and legitimate necessities. This leads to demanding situations in a corporate context; according to [46] numerous modern technological chances are recognized. According to [60; 49;10], the affairs in the area of digitalization and business model innovation (BMI) is much exciting. While the later involves dynamics on all levels of society, digitalization by means of amalgamating various technologies opens unpredicted circumstances for future. It provides the possibility to produce new commodities, to offer new services and business model [59]. As it impacts corporate strategies and challenges one can think that digitalization has a direct impact on every industry [48]. In order to keep up within a digital world, the automotive production institutions are being challenged to rethink and to adjust both, their products, and their business strategies [29]. After digitalization, the factors for amendments in the world is the digital transformation. They established new technologies with the base of the internet for the whole community [79]. Digitalization makes many variations in a business organization. Being digitalization enhance the implementation and the extent of the firms [84], Companies that have to overlook the market are challenged by modern rivals that define the settled entities [48], Therefore ongoing business models become outdated and are restored by modern models [77;59]. Companies require to innovate their Business Models in order to be outmatched in the digitalized world [20].It is difficult to conduct experimental tests because of the condition in which the major items are not defined sufficiently [28]. Business Models are helpful and important concepts which represent components and combination in business activities for the objective of designing, communication or growth [56] because they interlink tactics with business procedures [64]. During past years, the Business Model itself has quickly become a source of innovation and competitive advantage [37]. On the other hand, the Business Model Innovation is explained as the result of an innovation initiative that replaces an entity’s existing business model [61] or entirely changes the ongoing business model [47]. Some of the other theories in literature

by some past researchers can be explained as follows. Diffusion of innovation theory was improved by E.M. Rogers in 1962. The proliferation of innovation, idea and technology through culture or cultures is the diffusion of innovation theory. This theory conveys that there are many qualities in a variety of persons that cause them to accept or not to accept innovation. The design of an institution relies on the entity's technology and environment, as well as the effectiveness of managerial procedures is a popular view of contingency theory. Domain theory can be interpreted as the gathered proficiency on a specific subject matter of a domain like accounting [34]. Method theory is a conceptual system which starts from a separate perspective like the organizational analysis. A comprehensive list of innovation management theories that can be used to understand and explain the success of digital platforms, but the following paragraphs will collaborate on six innovation management theories to help to describe the phenomenon. Innovation ecosystems are collective arrangements where entity's associate their potential cross-industry products or services into well-coordinated and coherent value networks with the application of digital information technologies [1; 2; 44;45]. New open BMs will have to be invented to define the necessity for participation and the mechanism to capture value for itself [21; 83]. Interesting to note that the value innovation theory was published [41],the same year disruptive innovation theory was introduced by [22],which eventually evolved to become known as Blue Ocean Strategy [42].Both theories support each other exceptionally well, insisting that it is not about the technology [18] that drives new markets, but new business models that can produce new value maps to provide simpler services at a much lower price, that will attract noncurrent customers (from current industries) and low price seeking customers who have been over-served with current high price and performance solutions. Business model innovation for digital platforms is where open innovation and value innovation theory meet and interest with each other to develop new value networks and consumers are like to make payments for the service. With the business model theory, methodologies and tools were required to help industry with their business model innovation efforts. To find the just good enough performing product, value innovation methodologies and tools must be used to find the minimum performance requirements customers and consumers are willing to work with, which in many cases is known as the dominant design of the product [81]. Digitalization is how people connected with each other [13]. According to the explanation of above, diffusion of innovation theory is considering on spread of innovation, ideas and technology. Management accounting researchers should concentrate carefully to an organization's ways to diffusion and adoption tactics of innovation, particularly, dimensions when designing as well as implementing process innovation programs [75].

4. HYPOTHESIS DEVELOPMENT

According to the conceptual model as utilized in the envision project both internal (innovation activity and tactics) and external (competitiveness intensity and technology turbulence) factors directly affect the business model experimentation. the researcher proposes that strategy, technology, communication and innovation economies are positively related with the digitalization on business models. It can be introducing these concepts in the following subsections. According to the research "the impact of digitalization on business models" [11], strategy was used as an independent variable and results proved that strategy supported to have a straight impact on business model experimentation and proved that business model experimentation has a straight positive influence on business model practices and also in the research "the digitalization impact on accounting firms' business models" [16] has used strategies as an independent variable. In the research "impact of digitalization on international companies" [82] strategy was used as an independent variable in conducting the research. It proved that digital business strategy provides a guideline for improvement in the digital development in the digitalized world and focus at achieving the digital transformation. Following the preceding discussions, it is predicted that:

Hypothesis 1-Strategy has a direct positive impact on business model experimentation

Digitalization caused "technology consumption" and it comprises technologies and tools. SMEs have to adopt according to the new technologies incessantly. According to the research "the impact of digitalization on business models" [11], technology turbulence was used as an independent variable and proved that technology turbulence has a positive effect on business model experimentation. And also further proved that the business model practices have a positive impact on innovativeness and on overall execution of a company. By following the above discussion, it is predicted that:

Hypothesis 2 -Technology has a direct positive impact on business model experimentation

In future, our eyes will be increasingly focusing on screens as a result of digitalization. Past advancements in information technologies and communication technologies have made it possible for organizations to provide their employees with new ways of working together. It is noted that digital business models and procedures enhance cooperative operations with exteriors. A superior interior and exterior communication and collaboration enhanced decision making and an enhanced value chain structure [31] and proved that communication has a direct impact on the possibilities of digital business models. So according to the preceding discussion, it is predicted that:

Hypothesis 3- Communication has a positive impact on business model experimentation

All procedures take up by a firm to put some utility to its products and services is known as innovation activity in an organization. The researcher expects that an internal aspect like innovative activity will lead to digitalization in an organization. According to the research "the impact of digitalization on business models" [11], innovation activity had been taken as an independent variable and proved that innovation activity has supported to have a positive influence on business model experimentation and so those business model experimentation has a positive impact on

business model practices. Many businesses were moving through investigating new forms of the open innovation model according to their research findings. Following the preceding discussions, it is predicted that:

Hypothesis 4- Innovation economics has a positive impact on business model experimentation

Business model experimentation entails all the procedures that a company carried out and assists in terms of amendments of their entity logics. There is a link between digitalized technology deployment and management accounting [9]. It argues that in digitized organizations management approaches have to be reconsidered. By providing a budget to groups involved in experimentation, and management of those groups, the researcher pays attention to enabling experimentation without focusing on the kind of analysis conducts. Following the preceding discussion, it can be predicted that:

Hypothesis 5-Business model experimentation has a positive impact on business model management practices.

The environment of organizations operating in developing countries has changed by globalization with a rising trend in unpredictability, strengthen industry rivalry and enhanced technology. Globalization creates in novel digital technologies and because of that developing countries have to face higher rivalry [40]. The functioning of management accounting is affected by the community and behavioral aspects rather than technical or numerical factors [34;35;36]. This highlights the use of management accounting is dependent on organizational factors. All variables are indicating that there is a direct impact on om management accounting practices through strategy, technology, communication and innovation economics. Following the preceding discussion, it can be predicted that:

Hypothesis 6-Strategy, Technology, Communication and Innovation economics has a mediating impact on management accounting practices

With the above-explained concepts and literature and how they are affecting the overall function of a firm, the following conceptual model has been developed by the researcher to be tested via empirical research (Figure 1).

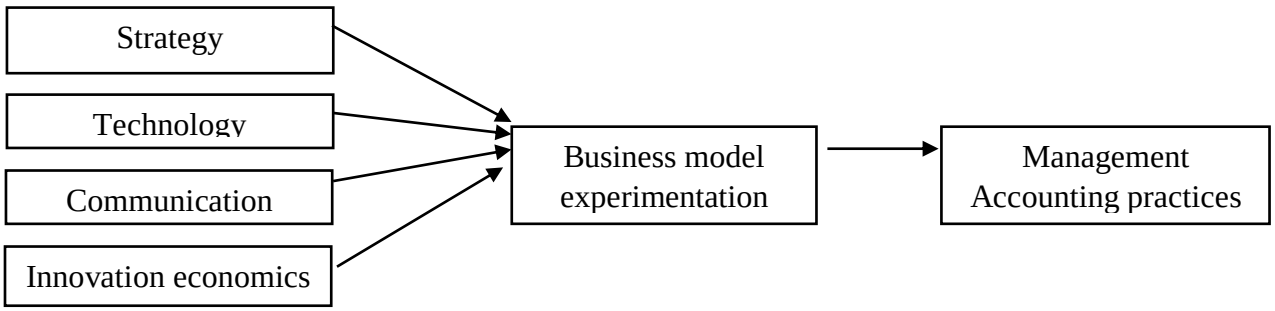

Figure 1-*Research conceptual model*

5. RESEARCH METHODOLOGY

In this section, it elaborates on the methodologies used in this analysis to observe and evaluate the proposed research model. A questionnaire survey is deemed to be employed. A questionnaire methodology was deemed to appropriate for this study for various reasons. It is a faster, less expensive and more convenient way of obtaining data from a large number of respondents than personal interview method. So in order to continue the research, a questionnaire is used. The research design describes how the researcher will approach the investigation of the dissertation. This analysis utilizes a random sampling methodology to examine the impact of digitalization on business models with special reference to management accounting. A quantitative survey questionnaire consisting of 36 questions was developed and will be distributed among 155 Small and Medium scale enterprises which are manufacturing companies that use technology for their production process within the Colombo district. The assessable data was gathered through the questionnaire based on a Likert scale basis. The questionnaire considered the following key components (1) Strategy (2) Technology (3) Communication (4) Innovation economics (5) Business model experimentation (6) Business model management accounting practices. Mainly primary data was collected using the above-explained questionnaire. The questionnaire conducted in the form of questions and agreements to make it user-friendly. The choice of the answer is arranged in five Likert scales as (5-Strongly agree;4-Agree;3-Neutral;2-Disagree;1-Strongly disagree). The questionnaire was personally administered mode as sometimes mailing mode takes a long time than the personally administered mode. Table 1 provides a list of the constructs used. Secondary data were obtained from

articles, journals, textbooks and other publications. These data are mainly collected through web sites, published research articles, journals etc.

Table 1 – *Question items used in the study*

Construct	Items	Source
Strategy	Scale up your business	[86;7;72;68]
	Focus your product offering	
	Focus on customer value propositions	
	Focus on a clearly defined digital strategy	
Technology	Rapid changing technology	[39;31]
	Rapid increasing technological development	
	Increased automation	
	Reduction of error frequency	
Communication	Usage of social media	[31]
	Communication as a key influencer	
	Communication improve better decision making	
	Enabling new ways of internal corporation	
Innovation Economics	New product development and research and development	[86;24]
	Innovation and /or research and development	
	Advertising products and services in a new way	
	Senior innovation sponsorship	
Business Model Experimentation	Experiment with their business model	[78; 76;27]
	Had specific team to manage business model changes	
	Allocated budget for business model experimentation	
	Existing linkages represent new business model	
Management Accounting Practices	Activity Based Costing (ABC)	[53]
	Activity Based Budgeting (ABB)	
	Enterprise Requirement Planning (ERP)	
	Computer Integrated Manufacturing (CIM)	

6. Data Analysis and Results

6.1 Reliability and Validity

Cronbach's alpha is an accepted test for internal reliability of latent variables [6; 14]. It is proposed to be higher than 0.70 [30; 80]. Even though the values were <0.7 [38],0.7 should not be the only standard used to assess reliability, whereby the shorter scale, with the lower alpha value, actually demonstrates higher interrelatedness among items. Furthermore, [32] value of 0.90 and above shows excellent reliability,0.7 to 0.90 conveys high reliability,0.50 to 0.70 shows moderate reliability and value 0.5 and below shows low reliability. Table 2 shows that reliability of all constructs are satisfied and communication, business model experimentation and management accounting practices reveals that there is high reliability while the variables strategy, technology and innovation economics shows moderate reliability. Kaiser-Meyer-Olkin test evaluates the validity of the data. Validity evaluates the accuracy level of an instrument while its reliability of an instrument evaluates the quality and consistency of the instrument [5]. The lower the proportion, the more suited data is to factor analysis. According to the KMO reruns, figures between 0.8 and 1 indicate the sampling is adequate. The sample is sufficient if KMO value is more than 0.5 and Bartlett's test is significant that is P-value is less than 0.05.KMO Values close to 0 means that there are large partial correlations compared to the sum of correlations [85]. The table shows that all variable innovation economics, all others are greater than 0.5 and therefore the sampling is adequate.

***Table 2**: Cronbach's alpha of constructions and Kaiser-Meyer-Olkin test*

Construct	α	KMO value	
STR	0.512	0.621	
TEC	0.686		0.615
COM	0.786		0.732
INV	0.546		0.515
BME	0.729		0.747
MAP	0.812		0.625

Source – SPSS output

6.2 Descriptive statistics

Table 3 describes the descriptive statistics of the research including mean, median, mode and standard deviation.

***Table 3:** Descriptive statistics among constructs*

Construct	Item	Mean	Median	Mode	Standard deviation
Strategy	STR1	4.20	4.00	4	0.678
	STR2	4.57	5.00	5	0.592
	STR3	4.57	5.00	5	0.730
	STR4	4.61	5.00	5	0.587
Technology	TEC1	3.99	4.00	4	0.587
	TEC2	4.14	4.00	4	0.582
	TEC3	4.05	4.00	4	0.643
	TEC4	3.89	4.00	4	0.717
Communication	COM1	3.64	4.00	4	1.050
	COM2	3.86	4.00	4	0.974
	COM3	3.99	4.00	4	0.773
	COM4	4.05	4.00	4	0.767
Innovation Economics	INV1	3.89	4.00	4	0.587
	INV2	4.02	4.00	4	0.564
	INV3	4.42	5.00	5	0.797
	INV4	4,14	4.00	4	0.853
Business model experimentation	BME1	3.55	4.00	4	0.583
	BME2	3.65	4.00	4	0.779
	BME3	3.59	4.00	3	0.779
	BME4	3.76	4.00	4	0.765
Business model management practices	MAP1	4.05	4.00	4	0.885
	MAP2	4.05	4.00	4	0.866
	MAP3	3.43	4.00	4	0.987
	MAP3	3.49	4.00	4	1.009

Source-SPSS output

6.3 Demographic information

43.9% of the respondents were between the age of 31-40 years,27.7% of the respondents were in the age range of 41-50 years,16.8% of the respondents were in the age range of 21-30 years,11% of the respondents were above the 50 years and only 0.6% of the respondents were below 20 years. Out of a total of 155 respondents, 68 were in the age range of 31-40 years. Out of the 155 respondents, the majority were males and it is represented by the above pie chart as 79% of the respondents are male and 21% of the respondents were females. According to the annual turnover, the majority was between 251 million – 750 million and as a percentage, it was 40.6%. Therefore, out of the 155 entities, 40.6% were medium scale manufacturing small and medium enterprises. According to the research only, 10% were very satisfied with their performance.52% of the respondents were satisfied while 32% of the respondents were somewhat gratified.6% of the respondents were somewhat dissatisfied while 0.6% of the small and medium scale entities were dissatisfied. Out of the 155 small and medium scale enterprises, 54% of the enterprises were having the organization in more than one location which means 84 enterprises. As well as 46% of the enterprises were not having their business in more than one location which means 71 small and medium scale enterprises. Out of the 155 small and medium scale

enterprises, 51% of the enterprises were not involved in online business while 49% of the enterprises involved with an online business. According to research 4.7 ,96.1% of the respondents experienced an improvement during the past 12 months while 3.9% of the respondents didn't experience an improvement during the last 12 months. Out of the 155 small and medium scale enterprises the majority was in line with their digital strategy which means 78% of the enterprises were satisfied with their digital strategy while 22% of the respondent small and medium scale enterprises were not satisfied with their digital strategy. According to the findings of the research, it indicates about 92% of the small and medium scale enterprises were using technologies such as analytics and social media to understand the consumers better and only 8% of the respondents were not using analytics and social media to understand the customer. 91.6% of the small and medium scale enterprises were using technology to enhance fulfilment and/or the value of their existing products and services while only 8.4% of the respondents were not using technology to improve performance and/or the value of their products and services. According to the results of the research, indicates that 65% of the small and medium scale enterprises launched new business models based on digital technologies while 35% of the respondent small and medium scale enterprises didn't launch any new business models based on digital technologies.

6.4 Correlation

The correlation coefficient of the population normally ranges between -1 and +1 and if it is closer to -1, there is a stronger linear negative relationship. If it is closer to +1, there is a stronger positive relationship. If it is close to 0, the weaker the relationship. Based on [23] criterion values more than 0.3 are considered to be sizable. According to table 4, all variables show a positive linear relationship. And table 5 represents the correlation between the intermediate and the dependent variable.

Table 4: *Correlation among constructs*

	STR	TEC	COM	INV	BME
STR					
Pearson correlation		.243	.473	.453	.491
Sig.(2-tailed).		.002	.000	.000	.000
TEC					
Pearson correlation			.400	.281	.434
Sig.(2-tailed)			.000	. 000	.000
COM					
Pearson correlation				.400	.710
Sig.(2-tailed)				.000	.000
INV					
Pearson correlation					.488
Sig.92-tailed)					.000

Source-SPSS output

Table 5-Correlation between intermediate and dependent variable

		MAP
BME		
Pearson Correlation		.419
Sig.(2-tailed)	.000	

Source-SPSS output

6.5 Regression Analysis

The hypothesis was tested through the regression analysis. The results can be present as follows.

Table 6: *Model Summary of independent predictors and intermediate variable*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.763[a]	.582	.571	.35548	1.719

a. Predictors: (Constant), Innovation, Technology, strategy, Communication
b. Dependent Variable: BME
Source-SPSS output

In here the R-square figure is 0.582, and it means 58.2% of the variation in business model experimentation can be explained by strategy, technology, communication and innovation economics. Adjusted R-square is 57.1%. Adjusted R square is used to make comparison the goodness-of-fit for the regression models that contain differing figures of independent variables. A rule of thumb is that Durbin-Watson test numerical figures in the range of 1.5 to 2.5 are comparatively normal. Figures exterior to this scale could be a reason for consideration [26]. Researchers suggest that figures less than 1 or higher than 3 are a definite reason for consideration. According to the result of the research, it is 1.719 which is on the scale of 1.5 to 2.5 and therefore relatively normal.

The research shows its R-square value is 0.176, and it indicates 17.6% of the variation in management accounting practices can be explained by business model experimentation. Adjusted R-square is 17%. In here the Durbin-Watson statistic is 1.895 which is in between 1.5 to 2.5 and therefore relatively normal. According to the research.it shows that P-value from the ANOVA table is 0.000 which is lower than 0.05. This means that at least one of the variables:Strategy, technology, communication

$$MAP = \beta 0 + \beta 1$$

$$MAP = 1.645 + 0.580BME$$

6.6 Sobel test

A construct may be considered as a construct which acts as a mediator to the extent to which it conducts the effect of a given independent variable to a given dependent variable [69]. According to the Sobel test, if the p-value is lower than 0.05, it represents that there is an association between the independent variable and the dependent variable is reduced significantly by the inclusion of the mediator in the model and so there is a proof of mediation [67]. The Sobel test equation is as follows [51; 52]. Table 7 shows the results of the test.

$$z\text{-value} = a*b/\ SQRT\ (b^2*sa^2 + a^{2*}s_b^2)$$

***Table 7**: Sobel test statistics*

	Test statistic	Standard error	p- value
STR	1.90898428	0.05104285	0.05626412
TEC	2.27541241	0.0435877	0.0228812
COM	4.67300265	0.04989511	0.00000297
INV	2.62987607	0.0469756	0.0085416

Source-Sobel test output

7. Hypothesis Testing

Figure 2 and table 8 represents the research hypothesis and findings of the analysis. It is noted that there is a significant association between strategy (β = 0.168, p < 0.05), technology (β = 0.171, p < 0.05), communication (β = 0.402, p < 0.05), innovation economics (β = 0.213, p < 0.05). So H1, H2, H3, H4 are respectively supported in the model. Furthermore, it is noted that there is a significant path between business model experimentation and management accounting practices (β = 0.580, p < 0.05), So H5 is supported in the model.

or innovation economics can use to model business model practices. As well as it shows that the P-value from the ANOVA table is 0.000 which is lower than 0.05. This means that business model practices can be used to model management accounting practices. P-value for strategy, technology, communication and innovation economics are less than 0.05 and therefore all those variables areas significant predictor of business model experimentation. In here the VIF value is 1.000 which is less than 5. Thus, there is no problem of multicollinearity. With relating to the findings of the research, the regression equation can be developed as shown below.

$$BME = \beta 0 + \beta 1 + \beta 2 + \beta 3 + \beta 4$$

$$BME = -0.239 + 0.168STR + 0.171TEC + 0.402COM + 0.213INV$$

P value for business model experimentation was less than 0.05 and therefore business model experimentation is a significant predictor of management accounting practices. In here the VIF value is 1.000 which is less than 5. Thus, there is no problem of multicollinearity.
From the above table, the regression equation can be developing as follows.

Figure 2: Results of the research model
Notes: ***P value < 0.05

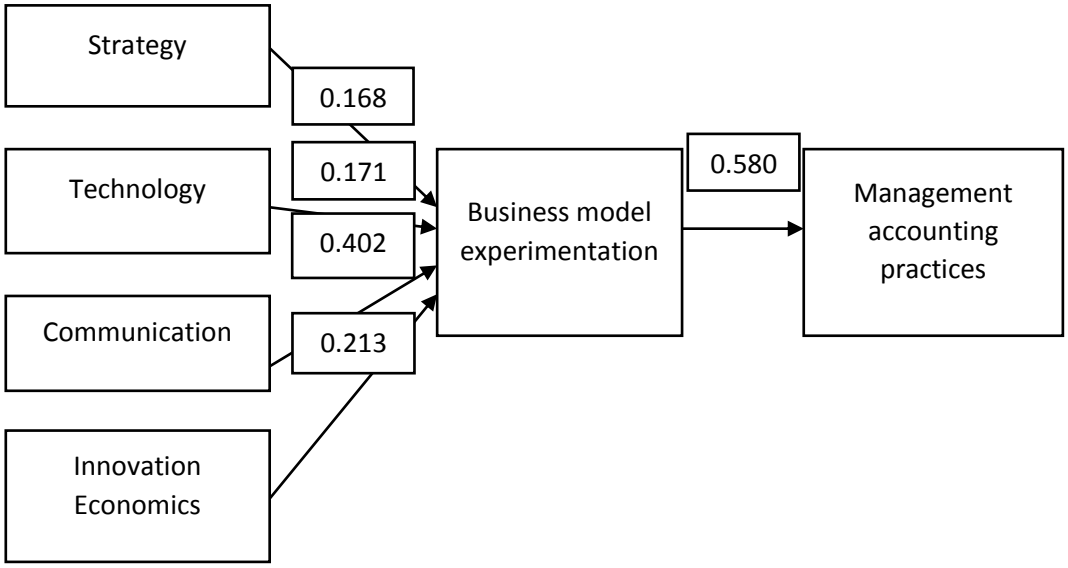

Table 8: *Hypothesis and results*

	Hypothesis	Results
H1	The strategy has a positive impact on business model experimentation	Supported
H2	Technology has a positive impact on business model experimentation	Supported
H3	Communication has a positive impact on business model experimentation	Supported
H4	Innovation economics has a positive impact on business model experimentation	Supported
H5	Business model experimentation has a positive impact on business model management practices	Supported
H6	All independent variables have mediation impact on management accounting practices	Supported

8. Conclusion and Recommendations

Basically, the research was carried out with four objectives namely,1) To investigate factors affecting business model experimentation 2) To assess whether business model experimentation affects for management accounting practices 3) To examine the impact of digitalization on management accounting practices.4) To examine its mediation effect of business model experimentation. Based on the analysis data, all four independent variables (Strategy, Technology, Communication and Innovation economics) are positively affecting business model experimentation. It indicates a direct association among independent variables and the business model experimentation. So the first objective is achieved. As well as there is a positive impact among the intermediate variable (Business model experimentation) and dependent variable (Management accounting practices) according to the analysis carried out in the fourth chapter. So the second objective is also achieved through this study. Therefore, it is noted that a positive impact of digitalization on management accounting practices and the third objective of the research is also achieved. As well as there is a mediation effect of the intermediate variable (Business model experimentation). In here it is recommended to promote the horizontal business linkages in order to conduct effective participation of the SME for the growth of the country. So the government intervention to SMEs should be an increase in Sri Lanka by providing financial requirements to continue business activities successfully as well as to maintain business linkages. It would be better for SMEs to initially consult a Digital consultation firm or a consultant who could prepare a digital road map which suits the business road map. It could initially start with a simple webpage or even a Facebook page for free and then end up with a comprehensive responsive web site with mobile apps and social media pages linked to modern Enterprise resource planning systems which are interconnected and use data analytic tools to understand the customer behavior and make informed decisions. It is highly recommended to use computer integrated manufacturing and to implement an enterprise resource planning system through a consultant. And from the consultant's standpoint, instead of charging heavy fees, it will always be better if they could go with a PAYE(Pay-As-You-Earn) approach so that the clients would also be able to make payments conveniently without considering the consultation as a financial burden in an ongoing basis. The present solutions to management accountants require for relevant competencies, proficiency and approaches are not evidently useful. It is another major implication of this study. According to the findings of the most prior analysis in suggesting that heavy consideration

needs to be placed on improving the individual competencies rather than technical skills. Management accountants require skills in every aspect including communication, analysis, creativity and adjustability. It is noted that there is a requirement for heavy consideration on the concept of management than the accounting. The challenges for the accounting profession are to find ways to develop such features with the proper guidance to them.

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