



ADOPTION OF DIGITAL MANAGEMENT ACCOUNTING PRACTICES BY MALAYSIAN SMEs: EXAMINING THE STRATEGIC FACTORS

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Abstract

This study examines the relationships between management support, government support, talent availability, adherence to laws and regulations, capital availability, and digital management accounting systems in Malaysian SMEs. For this study, SMEs in Malaysia were polled using a standard questionnaire. PLS 4, a cutting-edge piece of statistical software, was used to examine the data. The results of this study show that legislative requirements and financial capacity benefit Malaysian SMEs' adoption of digital management accounting systems. These findings imply that all five factors impact how quickly Malaysian SMEs adopt digital management accounting; however, regulatory standards and financial acumen have the most significant impact. As a result, it follows that small and medium-sized businesses (SMEs) who want to use digital management accounting systems must be financially stable and compliant with all applicable laws. The findings of this study lend support to Malaysian SMEs, government organizations, and the accounting profession in their implementation of digital management accounting. The importance of funding for such activities and regulatory compliance is heavily stressed throughout the article. It also highlights the need for more research into what influences and hinders small and large enterprises in Malaysia from adopting digital management accounting.

Keywords: Digital Management, Malaysian SMEs, Accounting Practices, Technology Adoption

BACKGROUND

The adoption of technology has a tremendous impact on organizations around the world. Technology has opened a new dimension for business practices, helping them gain deeper insight into their customer, improve products and services, optimize their operations, and more. Statistics from Organisation for Economic Co-operation and Development (Grupp & Mogege, 2017) show that service sectors are typically the most intensive users of technology. Technology-driven services are popular among researchers across the globe (Huang & Rust, 2017). Technology adoption today is skewed toward digitalization practices.

Digitalization means using digital technology that changes business operations, allowing new income generation and value production. (Bouwman, de Reuver & Nikou, 2017). The use of digital technology has influenced the procedure of manufacturing businesses and impacted the process of support functions, such as human resources and accounting services.

Adapting technology in the business process has created unique skill development opportunities. To be relevant in the industry, employees must simultaneously have competency in technology, analytics, and business acumen (Schäffer & Weber, 2019). However, this may result in downsizing at the organizational level, but this will not stop the effectiveness of the management accounting function (Hanafi & Ibrahim, 2018). Management accounting practices (MAP) align with the organization's changing needs and play an essential role in helping managers measure, analyze and report financial and non-financial information relevant to making decisions. Thus, when an organization applies MAP, it provides valuable information on planning, control, and evaluation, which will support management decision-making, thus

will improve organization performance and avoiding the chances of business failure. (Wu, 2020). Such benefits adopted via enterprise resource planning (ERP) systems are widely employed and cited for contributing to organizations' growth (Costa, Aparicio & Raposo, 2020). In place of this, digitalized MAP's value must be prevalent in SMEs. The success stories from large organizations can enable small and medium-sized enterprises (SMEs) to embrace an integrated management accounting practice. As a core driver of a country's growth, most SMEs utilize a systematic accounting practice by having an internal accounting department or outsourcing to accounting professionals. Whichever path is selected, an integrated management accounting practice is not prevalent in SMEs (Armitage, Webb & Glynn, 2016).

In Malaysia, the SME population makes up about 98 percent of all Malaysian businesses contributing 67 percent of total employment and 36 percent to GDP growth (Ombi, Ambad & Bujang, 2018). Recognizing the contributions of SMEs to the Malaysian economy, the Government has introduced numerous programs that include financial and non-financial intervention support. Research on digitalized management accounting practice adoption does exist but is limited. Studies by Richardson & Yigitbasioglu (2018) have provided some literature contributions on this topic. The limited empirical studies, such as Bakkari & Khatory (2017), have discussed the importance of strategic approaches that could influence adopting such digitalized management accounting practices. Research that uses such strategic factors in facilitating digitalized management accounting practice adoption by Malaysian SMEs would be interesting.

PROBLEM STATEMENT

Dias & Teixeira (2017) linked company failure to misunderstand the business environment and internal capacities, including insufficient working capital, changing market conditions, and critical accounting thinking. SMEs need DMPs, as to fall prevention. Management accounting has been digitalized for ten years, but its structure and profitability in SMEs have yet to be discovered. Long-term SMEs need SMAs. A significant German multinational discovered SMA's value. SMA makes strategic decisions using product cost attribution, brand accounting, rivals' evaluation, life product costing, quality cost, opportunity cost, target cost, and others (Blocher et al., 2019). SMA data may have prevented Malaysian strategists from improving SME performance. Malaysian SME MAP data needs to be improved. The Malaysian Digital Economy Blueprint 2021 mandates total digital transformation of all economic sectors. The Government wants service sector reform. Accountants work manually. Frey & Osborne (2013) examined accounting digitization. Most studies found rising countries like Malaysia need ongoing support, talent, governance, financial, and regulatory difficulties.

OBJECTIVES

The present study investigates the strategic determinants that enable the implementation of computerized management accounting techniques among small and medium-sized enterprises (SMEs) in Malaysia. The following are the objectives of the research:

- a) To examine the Role of top management support in facilitating the digitalization management accounting practices by Malaysian SMEs
- b) To examine the role of talent in facilitating the adoption of digitalization management accounting practices by Malaysian SMEs
- c) To examine the Role of government support in facilitating the adoption of management accounting practices by Malaysian SMEs

- d) To examine the Role of the regulatory framework in facilitating the adoption of management accounting practices by Malaysian SMEs
- e) To examine the role of financial capacity in facilitating the adoption of digitalization management accounting practice by Malaysian SMEs

RESEARCH HYPOTHESIS

The advent of digitalization can cause a disturbance in the realm of management accounting practices. The digital landscape of the organization, its business models, management accounting and control practices, and the Role of the controller may be impacted. The digital transformation process occurs within the total operational domains throughout the value-adding sequence and the essential functions encompassing procurement, personnel management, and financial operations. The rapid adoption of technology is significantly impacting accounting processes and systems. Davis' Technology Acceptance Model (TAM) predicts the intention to utilize a computer. Davis et al. (2018) assert that the model consists of two essential elements linked to forming an attitude: perceived usefulness and simplicity of use. According to the Theory of Planned Behavior (TPB), a person's intention and capacity for actual behavioral control impact their behavior. The ability of the Theory of Planned Behavior (TPB) to explain or forecast any given behavior is the main difference between it and the Technology Acceptance Model (TAM). As proposed by Ajzen in 2002, the Technology Acceptance Model (TAM), in contrast, explains or forecasts users' behavior concerning their usage or non-use of technology, introduced the Unified Theory of Acceptance and Use of Technology (UTAUT) by Davis et al. (2018), which integrates the four fundamental concepts of performance expectancy, effort expectancy, social effect, and enabling variables. The fourth factor directly affects user actions, while the first three criteria directly predict user intent and behavior.

According to Ahmed, Abdulrahman & Abd Ghani's (2019) research, a positive correlation exists between owners' or managers' involvement and the implementation of MAPs. In small and medium-sized enterprises (SMEs), the proprietor or manager assumes the Role of the primary decision-maker, typically shaping the organization's trajectory. Hence, individuals in the position of ownership or management who exhibit a strong sense of accountability and dedication towards their organization will promote utilizing Management Accounting practices (MAPs) that furnish relevant data to enhance operational efficiency. Hence, transformational leadership theory could prove advantageous for proprietors or managers using their involvement in the execution of MAPs. The impact of upper-level management is a crucial factor to consider when implementing digitalization in management accounting practices. The hypothesis posits that there exists a correlation between top management and their ability to influence MAPs, as illustrated below:

H1: Top management positively influences the adoption of digitalization of management accounting practices by Malaysian SMEs.

Thanks to transformative learning and scientific methodologies, trainees can influence the subject matter and practical application of learning activities. Many people will be open to having power and actively participating in decision-making. Personal dedication and job happiness are also essential to this empowered learning approach. Employee creativity is examined by Bouwman, de Reuver & Nikou (2017), who finds that it may favour decision-making, motivation, and productivity. Making decisions with judgment, delegating authority, and participating in decision-making are all transformative and experiential learning aspects. The adoption of MAPs can be considerably impacted by the availability of qualified accounting

personnel (López-Muñoz & Escribá-Esteve, 2019). However, limited resources will cause SMEs not to have appropriate accounting staff, and lack of training reduces the possibility of adopting MAPs. Thus, in this research, it is considered staff needs to equip with the necessary skills to match with challenges in the organization, and training is an ideal solution to improve the staff skills. Thus, the following relationship can be associated:

H2: Staff talent positively affects the use of digitalization management accounting practices by Malaysian SMEs.

The degree and caliber of a nation's dedication to creating a government plan are influenced by several things. Goals, deadlines, and milestones specific to each nation's e-government platform will be required. User participation (also known as e-participation) and the quality of technical infrastructure required to support interactive applications are two elements that can directly impact the performance of a government. The development and acceptance of wired networks have yet to catch up to the expansion of wireless technology in many developing economies. E-participation and wireless applications are two areas that should be thoroughly examined for the expansion of government projects. E-government project implementation offers chances for better decision-making and citizen involvement. The success of digital technology in SMEs can be possible with government support. Thus, there is a relationship between government support and the digitalization of MAPs by SMEs.

H3: Government support influences Malaysian SMEs' adoption of digitalization management accounting practices.

A catalytic enforcement style means that individuals are motivated to comply with rules but cannot do so because they cannot be compliant or do not understand how to comply. Technical and financial assistance, instruction, and other inducements are used to promote compliance. Coercive enforcement tactics entail supposing that people are unwilling to follow the law, which they must remedy by imposing penalties on those who do not. According to this theory, people follow the rules because they fear the repercussions if caught breaking them. The researcher formed the following hypothesis:

H4: The presence of a regulatory framework encourages Malaysian SMEs' digitalization of management accounting practices.

According to the transaction cost theory, financial intermediaries emerge due to their ability to leverage economies of scale and transaction technology. The fundamental aspect of the transaction cost theory encompasses the expenses linked with the collection and analysis of data necessary for determining the transactional procedure, achieving favourable contract negotiations, and ensuring the implementation and compliance of contractual agreements. Financial institutions engage in the process of transforming one monetary claim into another, which is commonly known as qualitative asset transformation. As such, the financial intermediaries offer their customers liquidity and diversification opportunities. Thus, there is a relationship between finance support business operations, and the following hypothesis is noted:

H5: Finance capacity facilitates the adaption of digitalized management accounting practices by Malaysian SMEs.

RESEARCH DESIGN

The research design offers a suitable framework for a study. The choice of research technique is crucial in the research design process since it defines how relevant data will be collected for a survey. This study investigates the strategic elements that help Malaysian SMEs implement

digitalized management accounting procedures. A series of semi-structured interviews and a well-structured questionnaire with stakeholders in the participating organization make up the initial section of the study. This study uses a descriptive research design to reach a consensus on the strategic elements that encourage the adoption of digitalized management accounting processes. The researchers were able to collect information on Malaysian SMEs from a variety of respondents because of the research design they used. The feedback received will be used to examine how it impacts the sector.

The research design lays out the fundamental rules that must be adhered to execute the study properly. For instance, a research design should provide relevant data to address the study's questions or hypotheses most effectively and efficiently. Everaert & Koster (2020) asserted three distinct study design categories: exploratory, descriptive, and causal. The descriptive and causal research designs are the ones that best meet the necessity to provide the relevant data for the research mentioned above questions and hypotheses these three. Descriptive data are necessary to respond to the first two research questions, which address the degree to which digitalized management accounting practices are used in Malaysian SMEs, and the functions that digitalized management accounting practices serve in the management of SMEs. For the causal research stage, the descriptive data will also provide details on the auxiliary variables influencing the usage level of digitalized management accounting practices and the association between that usage and firm performance. The research stage will require this information. Finding out if one variable (the independent variable) is to blame for changes in a different variable (the dependent variable) is the aim of causal research, which is also known as explanatory research (Saunders et al., 2020). The five hypotheses formed throughout this investigation are reflected in the necessity of this research design. The research must include independent and dependent variables to establish essential correlations. More specifically, the first hypothesis will investigate if top management (independent factors) impacts Malaysian SMEs' adoption of digitalization of management accounting methods (dependent variables). The second hypothesis will examine whether staff talent levels favour how much Malaysian SMEs employ digitalization management accounting methods. The third, fourth, and fifth hypotheses will all be tested similarly. The degree to which small and medium-sized firms (SMEs) in Malaysia embrace digital management accounting methods is influenced by the support offered by the Government. Small and medium-sized businesses (MSMEs) in Malaysia are encouraged to digitize their management accounting procedures by the presence of a regulatory framework. Small and medium-sized businesses (SMEs) in Malaysia can adopt digitalized management accounting procedures more efficiently, thanks to their financial capacity. Therefore, this research needs to use a descriptive and causal research design to meet the needs more easily for descriptive data and the testing of hypotheses. The experimental research design, which "does not aim to test specific research hypotheses but rather attempts to discover new relationships, patterns, themes, or ideas" (Wait, Reiche & Chew, 2020), does not comply with the study objectives and is, as a result, inappropriate for use in this investigation because it seeks to uncover new relationships, patterns, themes, or ideas.

PARTICIPANTS AND DATA

There is frequently a trade-off between time and cost for higher sample sizes when determining sample size. More group data must be consumed and dissected by a larger sample. Due to this study's budgetary and time constraints, concessions must be made to acquire a sufficient sample size. There are numerous ways to calculate the appropriate sample size, though due to variations in how small and medium-sized SMEs employ MAP, variability data are not available. References to reputable and trustworthy criteria offered by analysts to help estimate

sample size are found on numerous sites. For most investigations, sample sizes of more than 30 and lower than 500 would be adequate. From a different angle, a more reasonably quantifiable study and a more pertinent conclusion would result from using at least 100 cases for each form of quantitative analysis.

In contrast, the sample size in multivariate investigations should be more important than the total number of analytical components. Despite the guidelines above, a higher sample size is necessary for more subgroups. We anticipate at least 100 examples to ensure a successful quantitative investigation because this analysis requires a multivariate study.

Numerous factors must be considered at once to calculate the sample size drawn from a population. Some of the factors that need to be considered include the cost and time constraints, the variability of components within the target population, the necessary estimating precision, and the decision of whether the findings are to be generalized and, if so, to what degree of confidence (Hair et al., 2007). Making a trade-off between the amount of money and time invested and the sample size is a frequent technique when choosing the sample size. Higher data collection and analysis expenditures will arise from a larger sample size. As a result, to obtain a sufficient sample size within the constraints of both budget and time, this research must compromise between the competing demands. Examining the factors considered when choosing the sample size is imperative to ascertain if the sample size can function within these constraints. Several statistical methods can be used to calculate a reasonable sample size; however, manually requires knowledge of variability (the standard deviation), estimating precision, and confidence level.

Other guidelines may mention dependable guidelines offered by statisticians to help select the correct sample size. The results of Bujang et al. (2018) indicate that sample sizes in scientific investigations should fall within the range of thirty to five hundred. This idea is supported by Lakens (2022), who suggests a minimum of 30 subjects for statistical investigations. As demonstrated by statisticians, a sample size of 30 or more will typically produce a sampling distribution for a highly similar mean to a normal distribution. The minimum sample size criterion is based on the idea that this position is essential to prevent the occurrence of misleading results. As a result, a sample's total size increases as the sample's distribution approaches the normal distribution and the sample's resilience increases (Saunders et al., 2020). Writing from a different perspective, Andrade (2020) stated that at least 100 samples are needed for any quantitative analysis. This is a different point of view. This would help produce a more logical statistical analysis and a result more relevant. The sample size for multivariate research, which involves multiple regression analyses, should, on the other hand, be many times (ideally ten times or more) bigger than the number of variables that are being explored in the study, according to Luedtke, Sadikova & Kessler (2019). The context of this suggestion was multivariate research. Sharma et al. (2020) provide a minimum sample size for research that includes numerous subsamples in addition to the guidelines already provided. According to the research of Fowler & Lapp (2019), the needed sample size needs to grow correspondingly as more subgroups are present. Aiming for at least 100 occurrences would be recommended for a good quantitative analysis because this study will involve multivariate regression analysis with up to eight variables.

Table 1: Sample size for each subgroup and the target number of responses

Subgroups	% of contribution in economic value-added	Sample size	Estimated responses	
			Worst (12%)	Worst (15%)
Small	48.0	480	58	72



Medium	52.0	520	62	78
Total	100	1000	120	150

DATA COLLECTION

The following are the primary procedures that were employed in data collection. Both quantitative and qualitative information was gathered for these studies. Both qualitative and quantitative methods are used as primary sources. Quantitative data comes from surveys and interview questions, whereas qualitative data comes from interviews, observations, and casual conversations. "Secondary data" describes information already gathered but not by the user. This data set sheds light on the cutting-edge methodology's research domain. It also creates some holes in the research that need to be filled. These secondary data sources may come from a wide variety of internal and external data sources. Documents and reports from the relevant fields of study: The researcher will do extensive online and offline document reviews of the companies to fulfil the requirements of the dissertation. Regarding the methodology behind assessing the structural (descriptive) and content criteria, literature studies can significantly help.

Data Analysis

The data collected in this analysis is to develop graphical measures and dependent and independent hypothesis sample factors with a two-dimensional and multivariate factual study. The framework of the study carried out a regression analysis to evaluate the five variables: support from top management, support from the Government, talent, regulatory standards, and financial capacity. This was done so that the research questions could be answered. According to the findings, the most significant factors that affect the implementation of DMAPs are presented in the table below.

Table 2: Model Summary

Variables	R-Square	P-Value
Top Management Support	0.017	0.688
Government Support	0.037	0.359
Talent	0.064	0.109
Regulatory Standards	0.282	0.000
Financial Capacity	0.395	0.000

The R-squared statistic, also known as the coefficient of determination, is used in statistical analysis to determine how well a regression model fits the data. It is a measure of how much of the variation in the dependent variable (that is, the variable whose value is being predicted) can be attributed to the independent variable (or variables) (that is, the predictor variable or variables). A value of 0.017 for the "Top Management Support" variable's R-squared shows that it only explains a small percentage of the variance in the variable that is being studied (the dependent variable). In other words, there is not much of a correlation between "Top Management Support" and the dependent variable, and the same can be said about the variables of "Government Support" and "Talent," both of which have a relatively modest degree of difference between them and the dependent variable.

A value of 0.282 for the R-squared test for the "Regulatory standards" variable explains a considerable fraction of the variance in the tested variable (the dependent variable). This hints that the regulatory standards are essential in predicting the dependent variable being analysed. Similarly, a value of 0.395 for the R-squared test for the variable titled "Financial Capacity" suggests that this variable explains a more significant proportion of the variance in the

dependent variable than the variable titled "Regulatory standards." This would imply that financial capacity is a better predictor of the variable that is the focus of the investigation.

Hypothesis Testing

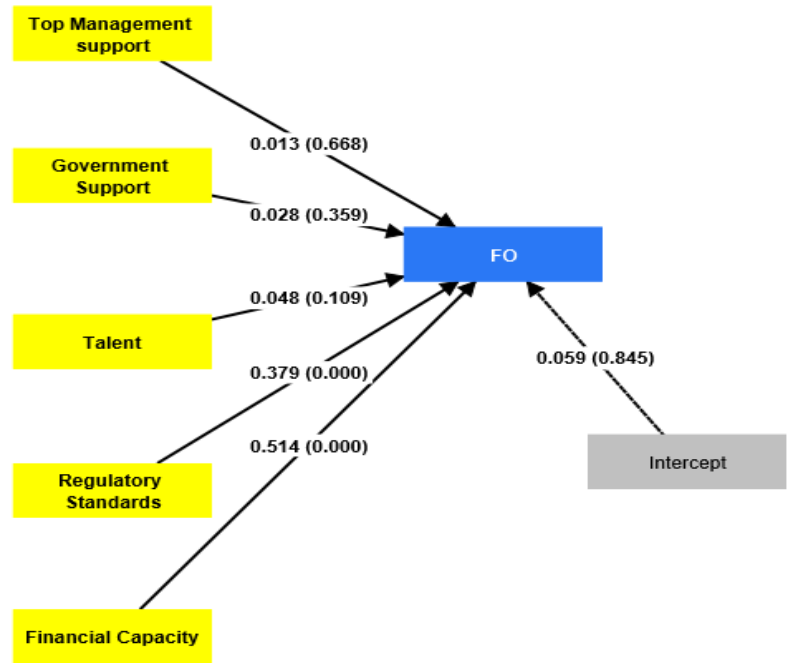


Figure 1: Regression (R-square and P value)

A score of 0.013 for the R-squared test for the "top management" shows that this variable only explains a small part of the variance in the analysis's dependent variable. A p-value of 0.688 indicates a 0.688 percent chance that the observed result (or a more extreme result) could have been produced by random chance alone. All these results, taken together, lend credence to the conclusion that there is no statistically significant connection between "top management" and the variable in question. The fact that the p-value is lower than the significance level (often set at 0.05) reveals that the results cannot be considered statistically significant. As a result, we are unable to conclude that there is a strong connection between "top management" and the variable in question. Hence, we must maintain our adherence to the null hypothesis.

According to the findings, there does not appear to be a substantial connection between the independent variable and the two additional factors, "Government assistance" and "Talent." The fact that the p-value is lower than the significance level (often set at 0.05) reveals that the results cannot be considered statistically significant. As a result, we cannot conclude that there is a substantial connection between "Government assistance and Talent" and the variable under investigation because the null hypothesis cannot be refuted.

The square root of the R-squared value is 0.028, which indicates that the regulatory standards variable can only explain 2.8% of the total variance in the data. The fact that the p-value for the association between regulatory standards and the Digitalization process of management accounting variable is 0.000 suggests that the relationship is statistically significant, which means that it is doubtful to have been the result of random coincidence. On the other hand, a low R-squared value shows that other factors probably have a more significant influence on the response variable. To put that into perspective, the result of R squared was 0.514, which indicates that the variable representing financial capacity can explain approximately 51.4% of the variance seen in the data. This suggests that the variable measuring financial capability has a connection that ranges from modest to firm with the variable measuring responsiveness. The

fact that this link has a p-value of 0.000 suggests that it is statistically significant, which means that it is doubtful to have been the result of random chance. As a result, financial capability is a strong predictor of the response variable; hence, it is essential to consider this variable in any analysis or decision-making process related to the response variable. Nevertheless, the findings indicate a positive and statistically significant connection between regulatory standards and financial capacity. As a result, the H4 and H5 hypotheses can be considered valid. We cannot accept the other hypotheses, H1, H2, and H3, even though their positive correlation coefficients are consistent with our central hypothesis.

Interview Analysis

This section offers qualitative data gained from the interviews as a supplement to the quantitative findings that were previously presented. Incorporating them into the interview's guiding questions, the qualitative data supplemented the variables employed in the statistical analysis. This was done to determine the degree to which the variables could cover the questions posed by this study. The interview procedure consisted of three distinct stages: the first stage was spent planning for and carrying out the interviews, the second stage transcribing the interviews, and the third stage was spent analyzing the data. The interviewees were selected taking into consideration their knowledge, status, and desire in the field. Before beginning each interview, the researcher tried to create and build a comfortable setting, and they worked hard to maintain the interviewees' trust during each interview. The researcher gave a summary of the study's topic matter, goal, and purpose, as well as a description of how data would be managed, and the interviewing procedure would be kept confidential.

Ten interviews were conducted as part of the mixed methods research that was the study's methodology. This study aims to understand the variables that affect how MAIs are implemented thoroughly. Additionally, these interviews are being conducted to determine how much of an impact various factors have had on Malaysia's deployment of MAPs.

Job Title

Every person who participated in the interview had some connection to accountancy, either professionally or academically. The researcher did not choose any executive team members to interview because participation in the interviews was voluntary and depended on the interviewees' prior written consent obtained from the questionnaire form. On the other hand, the researcher conducted interviews with three people holding academic positions to cover three distinct types of higher education institutions. In addition to their roles as heads of accounting departments, three interviewees held teaching posts at higher education institutions. Four of the interviewees held managerial positions in financial departments. In addition, one person served as the organization's internal auditor, one financial consultant, and one financial accountant participated in the interviews. As a result, all the people being interviewed were in a position where they could respond to the guide questions of the semi-structured interviews.

Table 3: Job Title

Job title	No of interviewee
Financial manager	4
Teaching staff member	3
Internal auditor	1
Financial Consultant	1
Financial Accountant	1

QUALIFICATIONS

The qualifications of those who were interviewed are listed in the table below. The ten

interviewed people had at least a bachelor's degree. Two people held doctoral degrees in accounting, five people who held master's degrees, and three people who received bachelor's degrees. These credentials' presence helps assure that the information obtained is reliable.

Table 4: Qualification

Qualification	No of interviewee
PhD	2
Master	5
Bachelor	3

Experience

In terms of the experience of the interviewees, the table that can be found below reveals that eighty percent of the interviewees had a length of work experience greater than ten years. In contrast, one interviewee had an experience that ranged from zero to three years, and one had an experience that ranged from six to ten years. More extended employment periods benefit the research goals because the information obtained from experienced employees is more likely to be accurate and trustworthy.

Table 5: Experience

Experience	No of interviewee
Less than three years	1
From 6-10 years	1
From 11-15 years	4
More than 15 years	4

THE ROLE OF ACCOUNTING EDUCATION IN ADOPTING MAP

Questions concerning the function of accounting education in disseminating MAPs were posed to all interviewees. One of the interviewees responded that accounting education in Malaysia contributes to using MAPs. A higher education institution's accounting department head clarified this by saying: "I believe that accounting education is improving today, and it is helpful to apply these advanced MAPs in Malaysian organizations; however, we are facing a shortage in the amount of time that is given to MA while students are still in the undergraduate phase of their education. The course curriculum contains several cutting-edge methodologies, like ABC and BSC, that give students a solid theoretical foundation. There is a plan to create the MA curriculum, but there needs to be more time to implement it because undergraduate students can only study MA subject matter for three hours every term.

According to the chair of an accounting department at the Malaysian Academy for Higher Education, "At our institution, we are teaching a current MA curriculum that encompasses the majority of MAIs; he believes that they offer an up-to-date MA syllabus. Some of these techniques are covered in the MA topic, while others are covered in the cost accounting course. Additionally, the MA program's curriculum is continually being revised to meet the requirements established by educational institutions in industrialized countries. We go through the process of reviewing the material that is covered in MA every two to three terms. The accounting department or the subject-matter lecturers may carry out this revision, after which they might suggest certain additions.

However, eight interviewed respondents believed Malaysia's current accounting curriculum does not promote MAIs. This is because no topics related to MAIs are covered in the MA curriculum taught to undergraduate students. After all, it is outdated. A financial manager for one of the Malaysian industrial organizations made the claim.

Malaysia's educational system could be more robust in general. A large percentage of accounting education is centered on using old textbooks and translating older works related to accounting. During my undergraduate studies, I never encountered MAP. While studying a particular technique, I first learned about advanced MA approaches during my graduate studies. However, during the past few years, many lecturers with master's and doctoral degrees from Western countries have started to spend much time in MA, giving talks about MAIs. As a result, we must now expand the teaching of MAIs undergraduate courses and fuse the theory learned in academic settings with real-world application.

The following assertions stated by the previous interviewee, an academic who formerly held the position of head of the accounting department at one of the higher education institutions, are entirely agreed with by one of the interviewees:

"The curriculum for accounting education in Malaysia does not include any of the more advanced methods used in MA. Currently, there are no plans in place to develop the undergraduate curriculum. However, there are ongoing initiatives to modernize the curriculum of the MA at the postgraduate level. He continued by saying that the teaching staff members oversee updating the accounting curriculum in accounting education and that the MAIs are a part of the updating process.

Another financial manager of a Malaysian industrial company who had studied accounting a few years prior shared the following insight about the country's accounting education system:

"When I graduated from college approximately ten years ago, accounting education delivered basic information linked to MA, but we were never informed about MAIs. As a result, the curriculum for accounting education needs to be brought up to date, and students should be taught using contemporary textbooks. In addition, the most crucial concern of MAIs is bridging the gap between theory and practice in the organizations of Malaysia.

This was explained by a financial manager working for a Malaysian organization, who also pointed out the necessity for enhancing MA education and practice. He said as much.

"During the undergraduate stage of my education, Due to a shortage of current textbooks and capable lecturers who can teach contemporary themes connected to MA, we did not study any advanced MA techniques. I did study some MAIs, though, during the postgraduate phase of my schooling. Since 2005, I've noticed several changes to textbooks and how advanced MA is taught, specifically the emphasis placed on different MAIs. Malaysia's accounting education industry hasn't been able to do much to encourage local companies to use MAIs. We need communication between academic and professional groups to achieve the integration of scientific research and practice in Malaysian organizations. According to a financial adviser working for a service company, the Government should pay for practical accounting training. He explained that by saying.

"There has been no development in the curriculum about accounting education, and there is a lack of practical training in parallel with theoretical study throughout both the undergraduate and postgraduate levels of study." The Government should foot the bill for students' practical training while they are still in school before graduation.

This finding is consistent with what was found by Frey & Osborne (2013), which found that "there is a lack of a systematic development and update of the accounting curriculum, syllabus, and textbooks in Malaysia universities," which "leads to an outdated syllabus that is irrelevant to the needs of Malaysian accounting students or to the profession." On the other hand, some modifications have been made to the course outline presented to the postgraduate students, such as adding specific material concerning MAIs. Introducing new professors who have just



received their university degrees in the UK and have a solid understanding of modern MA methodologies is the driving force behind these improvements.

IMPORTANCE OF MAPS

It inquired of the interviewees as to whether they believed MAIs to be important. Seven of the people who were interviewed thought that they were significant, while two of the people who were interviewed did not think that they were significant, and one person was unsure. After further discussion about this subject, the majority of those who were interviewed thought that MAIs were significant since utilizing the most recent approaches in MA aids in terms of planning, saving costs, exercising control, and making judgments.

The respondents provided their perspectives grounded in their individual experiences and backgrounds. The director of an accounting department at a higher education institution, who has an academic background, asserted that the MAIs hold great importance not only for the commercial sector but also for the public sector.

The financial accountant employed by an oil company expressed his expert opinion on the significance of MAIs, drawing from his practical knowledge. He asserted that implementing MAIs can yield substantial benefits for the organization. The statement above was uttered by an individual specializing in accounting within their professional expertise's scope. In the event of the lack of Mutual Agreement Procedures (MAIs), decision-making processes are subject to randomness and flawed data. Conversely, Multilateral Agreements on Investments (MAIs) afford the chance to gain insights into the issue from diverse standpoints, facilitating and rationalizing the decision-making process.

A financial consultant, a member of the service sector workforce, elucidated the importance of incorporating sophisticated managerial accounting and cost accounting techniques. The utilization of MAIs in the computation of expenses was held in high regard by the individual. The individual posited that utilizing advanced methodologies for cost calculation can significantly enhance the understanding of expense structures. Upon their employment in our organization, they presented findings indicating that a mere 10% of overall costs were attributed to general expenses. In contrast, approximately 70% were categorized as semi-direct expenses expending for non-profit generating purposes.

Conversely, certain interviewees contended that implementing MAIs within the Malaysian context could have been more relevant due to the nascent stages of the manufacturing and service sectors, rendering the adoption of MAIs an extra expenditure of time and resources. The present discourse features a finance manager from an industrial organization in Malaysia who posits that implementing any of Malaysia's National Aerospace Industry (MAI) initiatives needs to be revised. The manager contends that the MAIs need more relevance in Malaysia, so investing time and resources in their adoption is unnecessary. The speaker asserted that MAIs hold significant importance for countries possessing robust commercial and public sectors operating in a fiercely competitive environment. In contrast, the significance of the Manufacturing and Services Industries (MAIs) in Malaysia is limited as these industries persist in utilizing antiquated production and marketing techniques. Furthermore, the prevalence of the public sector and the need for more competitive forces contribute to the diminishing significance of MAIs. If Malaysia's economy and Government undergo substantial changes, they could assume a crucial role in the country's future. One of the finance managers at one of the Malaysian service firms discusses the factors that contribute to the unimportance of MAIs in the Malaysian environment and the factors that contribute to the low adoption rate of MAIs in Malaysian organizations.

FACTORS INFLUENCING THE ADOPTION OF MAIS

The participants in the interview were given two different lists of considerations after the process. The first list consists of factors that may make adopting digital management accounting practices easier. In contrast, the second list may make adopting digital management accounting practices more difficult. It was requested of the people being interviewed that they rank the elements on both lists according to the importance they hold.

"Top management support" was selected as the most influential element for adopting DMAP by five of the individuals interviewed to gather information for this article. According to the opinions of four of those interviewed, "Government Support" is the factor that has the second most significant impact on the implementation of DMAPs. "Regulatory Standards" was the third most influential factor that the interviewers nominated, and it came in third place overall. Two of the people who were interviewed ranked the following five elements as the fourth most important: Top Management Support, MA training, and Financial Capacity. For example, "Top management support" came up on top in the interview analysis because it was selected by five of the interviewers; however, the empirical test did not find this to be the case among the relevant factors.

DISCUSSION OF RESEARCH RESULTS

To varying degrees, the dependent variable (implementation of DMAPs) is significantly connected with the independent variables (top management support, government support, talent, regulatory needs, and financial capability). Let's examine the findings of this inquiry in more detail.

The analysis shows that the variables of top management support, government backing, and skill have low R-squared values (0.017, 0.037, and 0.064, respectively), indicating that these variables only partially explain the variance in the dependent variable. The strong p-values (0.688, 0.359, and 0.109) imply no statistically significant correlation between these characteristics and the use of DMAPs. The available data prevents the inference that these independent factors significantly impact the dependent component.

In contrast, outcomes are substantially more resilient when financial resources and regulatory obligations exist. The dependent variable is significantly predicted by regulatory requirements, as shown by their R-squared value of 0.282. Additionally, the incredibly low p-value (0.000) shows a statistically significant link between following rules and using DMAPs. This implies that laws and regulations reasonably impact anticipating the result.

Financial ability also has the highest R-squared value (0.395) compared to the other independent variables, which means that it accounts for a more significant proportion of the variance in the dependent variable. The low p-value (0.000) supports the statistical relevance between financial resources and the use of DMAPs. As a result, financial capacity is a substantial predictor of the outcome variable. As a result, financial capacity must be considered in any study or decision-making related to implementing DMAPs.

Conclusions suggest that top-level management support, government aid, and skill are less critical in implementing DMAPs than regulatory requirements and financial capacity. Financial capacity emerges as a significant predictor of the dependent variable, whereas regulatory standards are just marginally significant. To be precise, positive correlation coefficients across the board support the central premise; however, only the correlation between regulatory requirements, financial capacity, and the adoption of DMAPs is statistically significant.

It is crucial to understand the study's limitations, though. The study was based on the available



data. However, other elements of DMAP implementation might still need to be fully explored. Additionally, the research results only apply to a particular context and not others. To validate and expand upon these findings, additional research is required, considering a more comprehensive range of characteristics and potential factors that influence the deployment of DMAPs.

INTERVIEW DISCUSSION

The findings of a study that shed light on many aspects of the growth of MAPs in Malaysia are presented in this section. The qualitative information gathered from the analysis of interviews added to the quantitative results, provides a complete picture of the factors influencing the adoption of MAPs.

The interview subjects were introduced to the researchers initially. Among many other professions, participants included professors, internal auditors, consultants, and accountants. We could look at the problem from so many different angles because there were so many diverse viewpoints on it. Five respondents had master's degrees, three had merely bachelors, and two had doctorates in accounting.

The interviews revealed that the participants' opinions on the necessity of accounting education for implementing MAPs were divided. Some survey participants believed that Malaysian accounting education promoted the use of MAPs, while others believed that the curriculum needed to be updated and adequately addressed MAP-related topics. Many interviewees agreed that the curriculum needed to be updated urgently and that students needed more practical experience. To bridge the gap between theory and practice, they underlined the necessity for more current textbooks and the adoption of cutting-edge teaching methods. The fact that accounting courses are not routinely updated or increased at Malaysian universities was also highlighted.

It is a remarkable result that most people questioned were aware of the importance of MAPs. According to them, modern management accounting procedures support data-driven decision-making, command and control, financial conservatism, and strategic planning. The significance of implementing MAPs was emphasized by showing the public and commercial sectors' potential advantages.

The study also investigated the variables that affect MAP uptake. The support of higher management was discovered to be crucial, followed by support from the Government and regulatory standards. These factors were shown to be essential for facilitating the switch to DMAPs (digital management accounting practices). Success in adoption was also believed to be influenced by factors like MAP training and financial availability.

The research findings are consistent throughout and highlight the need to modernize accounting school courses, offer hands-on training, and increase knowledge and appreciation of the advantages of MAPs. It is impossible to exaggerate how crucial upper management support, government support, and regulatory standards are in smoothing the move to MAPs. Future initiatives are necessary to solve these issues and bridge the gap between theory and practice to implement MAPs in Malaysia effectively.

CONCLUSIONS

The study emphasizes the rationale for and protocols around the use of DMAP by Malaysian SMEs as its final point. The study's conclusions highlight numerous adoption-facilitating elements. For DMAPs, high-level support is required. Implementation success is highly

impacted by senior management's engagement in resource allocation, creativity, and change resistance. DMAP installation requires knowledgeable professionals. Software and accounting professionals must deploy new systems. Things like benevolent laws and government assistance are examples of enablers. SMEs can use DMAPs with the help of government funding, subsidies, guidelines, law, standards, training, and technological adoption. The payment was also necessary. Adoption of DMAP necessitates resources, income, and financial stability. The theory and application of management accounting were both enhanced by this study. Results can aid in understanding the advantages of DMAPs by Malaysian enterprises and governmental bodies.

References

- Ahmed, A., Abdulrahman, S. A., & Abd Ghani, M. B. (2019). Management Accounting Practices in Many Countries around the World a review of the Literature. *IOSR Journal of Business and Management (IOSR-JBM)*, 21(2), 05-09.
- Andrade, C. (2020). Sample size and its importance in research. *Indian Journal of psychological medicine*, 42(1), 102-103.
- Armitage, H. M., Webb, A., & Glynn, J. (2016). The use of management accounting techniques by small and medium-sized enterprises: A field study of Canadian and Australian practice. *Accounting Perspectives*, 15(1), 31-69.
- Bakkari, M., & Khatory, A. (2017, April). Industry 4.0: strategy for more sustainable industrial development in SMEs. In *Proceedings of the IEOM 7th International Conference on Industrial Engineering and Operations Management*, Rabat, Morocco (pp. 11-13).
- Blocher, E. J., Stout, D. E., Juras, P. E., & Smith, S. (2019). *Cost Management (A Strategic Emphasis)* 8e. McGraw-Hill Education.
- Bouwman, H., de Reuver, M., & Nikou, S. (2017). The impact of digitalization on business models: how IT artefacts, social media, and big data force firms to innovate their business model.
- Bujang, M. A., Sa'at, N., Bakar, T. M. I. T. A., & Joo, L. C. (2018). Sample size guidelines for logistic regression from observational studies with large populations: emphasis on the accuracy between statistics and parameters based on real-life clinical data. *The Malaysian Journal of medical sciences: MJMS*, 25(4), 122.
- Costa, C. J., Aparicio, M., & Raposo, J. (2020). Determinants of the management learning performance in ERP context. *Heliyon*, 6(4), e03689.
- Davis, A., Hirsch, D., Padley, M., & Shepherd, C. (2018). *A Minimum Income Standard for the UK, 2008-2018: continuity and change*. York: Joseph Rowntree Foundation.
- Dias, A., & Teixeira, A. A. (2017). The anatomy of business failure: A qualitative account of its implications for future business success. *European Journal of Management and Business Economics*, 26(1), 2-20.
- Everaert, J., & Koster, E. H. (2020). The interplay among attention, interpretation, and memory biases in depression: Revisiting the combined cognitive bias hypothesis. *Cognitive biases in health and psychiatric disorders*, 193-213.
- Fowler, S. B., & Lapp, V. (2019). Sample size in quantitative research: Sample size will affect the significance of your research. *American Nurse Today*, 14(5), 61-63.
- Frey, C. B., & Osborne, M. A. (2013). The Future of Employment: How Susceptible are Jobs to Computerisation. *Technological forecasting and social change*, 114, 254-280.
- Grupp, H., & Mogege, M. E. (2017). *Science, Technology and Industry Scoreboard 2017: The Digital Transformation*.
- Hair Jr, J. F., & Sarstedt, M. (2021). Data, measurement, and causal inferences in machine learning: opportunities and challenges for marketing. *Journal of Marketing Theory and Practice*, 29(1), 65-77.
- Hanafi, H. M., & Ibrahim, S. B. (2018). Impact of employee skills on service performance. *International Journal of Science and Research (IJSR)*, 7(12), 586-598.



- Huang, M. H., & Rust, R. T. (2017). Technology-driven service strategy. *Journal of the Academy of Marketing Science*, 45(6), 906-924.
- Lakens, D. (2022). Sample size justification. *Collabra: Psychology*, 8(1), 33267.
- López-Muñoz, J. F., & Escribá-Esteve, A. (2019). An interpretive study on the role of top managers in enterprise resource planning (ERP) business value creation. *International Journal of Information Systems and Project Management*, 7(4), 5-29.
- Luedtke, A., Sadikova, E., & Kessler, R. C. (2019). Sample size requirements for multivariate models to predict between-patient differences in best treatments of major depressive disorder. *Clinical Psychological Science*, 7(3), 445-461.
- Ombi, N., Ambad, S. N. A., & Bujang, I. (2018). The effect of business development services on small, medium enterprises (SMEs) performance. *International Journal of Academic Research in Business and Social Sciences*, 8(3), 117-130.
- Rikhardsson, P., & Yigitbasioglu, O. (2018). Business intelligence & analytics in management accounting research: Status and future focus. *International Journal of Accounting Information Systems*, 29, 37-58.
- Saunders, R. A., Lourenço, S., Vieira, R. P., Collins, M. A., Assis, C. A., & Xavier, J. C. (2020). Age and growth of Brauer's lanternfish *Gymnoscopelus braveri* and rhombic lanternfish *Krefflichthys Andersson* (Family Myctophidae) in the Scotia Sea, Southern Ocean. *Journal of Fish Biology*, 96(2), 364-377.
- Schäffer, U., & Weber, J. (2019). The second wave. *Controlling & Management Review*, 63 (4), 3-3.
- Sharma, S. K., Mudgal, S. K., Thakur, K., & Gaur, R. (2020). How to calculate sample size for observational and experimental nursing research studies. *National Journal of Physiology, Pharmacy and Pharmacology*, 10(1), 1-8.
- Wait, E. C., Reiche, M. A., & Chew, T. L. (2020). Hypothesis-driven quantitative fluorescence microscopy—the importance of reverse-thinking in experimental design. *Journal of Cell Science*, 133(21), jcs250027.
- Wu, H. (2020). Management Accounting and the Control of Organizational Performance. *Asian Business Research*, 5(1), 10.