



Research Article

Factors to CAS Adoption of MSEs in Lipa Batangas: Basis for CAS Design

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ABSTRACT

Accounting plays a major role in managing a business, whether large or small, because it enables business owners to keep track of their transactions for business decisions. However, most micro and small enterprises (MSEs) do not use computerized accounting systems (CAS) for lack of knowledge and financial resources. This paper investigated the level of adoption of the CAS of select MSEs in Lipa City Batangas, and how technology, organization, and environmental contexts play a major role in MSEs' decision to adopt it. The objective is to design a CAS that suits the latter's requirements. Using logistic linear regression analysis and analysis of variance, proponents determined the factors to CAS adoption and the differences in respondents' perceptions and adoption of the system. Contrary to what was often assumed, technological and environmental contexts do not affect CAS adoption. In contrast, organizational contexts in terms of financial and technology readiness significantly influence adoption depending on MSEs' economic sector, firm size, and annual revenues. Thus, a simpler CAS design is proposed to help small businesses appreciate CAS and find the importance of recording transactions and generating accurate and reliable financial information for business decisions.

INTRODUCTION

A. Background of the Study

Accounting plays a major role in managing a business, whether large or small because it enables business owners to keep track of their income and expenditures, statutory compliance, and information significant for business decisions. It involves several simple or complex processes and requires timely and accurate information to ensure business growth. And as the firm grows, a computerized accounting system to keep up with the increasing number of transactions and demand for accurate information is needed to sustain the business and survive in a highly competitive industry.

A computerized accounting system (CAS) consists of software designed to track all company's accounting transactions and produce financial output for monthly reports, annual financial statements, tax return information, and other report configurations to analyze its operations, efficiency, and profitability (Gaffney, 2018). It records, analyzes, processes, and stores financial reports and data (Williams, 2020). Accurate and reliable information for decision-making can be easily derived from the software. Unfortunately, most currently available computerized accounting systems in the market are designed for larger companies. They include functions that MSEs do not need, and they may cost too much for smaller entities to acquire.





As of 2020, 99.02% of establishments in the Philippines listed by the Philippines Statistics Authority (PSA) are MSEs, and 14.62% of them are from Region IV-A. However small in percentage, their business failure is still a critical issue because they contribute largely to the country's economic health (Rogers, 2016).

Their business survival is vital because MSEs provide employment, increase gross domestic product, and stimulate other economic activities. Therefore, MSEs must be given support for growth and assistance for understanding the benefits of accurate information for business decisions. One key strategy for having a successful business is accountability through sound reporting practices that only CAS can provide (Darshi, Nanayakkara & Gunawardene, 2019).

Unfortunately, most micro and small businesses in Batangas do not use CAS for lack of knowledge and financial resources, based on the proponents' needs assessment conducted for MSEs in Batangas. Most of the entities need to use the traditional or manual encoding of accounting entries, likely producing inaccurate data because of human error or missing information. Thus, there is a need to provide a system designed specifically for micro and small businesses to keep up with business competition and government compliance with lesser costs and value for money.

Considering these, this study determined the factors affecting CAS adoption and validate whether technology, organization, and environment for MSEs contribute to business owners' decision to use CAS. The objective is to provide a system that suits the

requirement for accounting of MSEs that will help small businesses generate accurate and reliable financial information.

Large or small businesses still need to find a suitable accounting system because an ineffective system will put the business at risk of making financial errors (Asusano, 2020). Furthermore, firm size and financial readiness limit them from adopting computerized systems, keeping them behind business trends (Habiba, 2019). Therefore, this study will be most significant to micro and small businesses as it presents options for adoption and a proposed computerized accounting system fit for their business operations. Through this, managers and owners of micro and small enterprises can expand their business, increase employment, participate in social change, and worry not about compliance and accounting reports. Likewise, the study will be relevant to the accounting profession as it highlights new technology adoption possibilities and to the IT professionals who will design accounting information systems and programs.

B. Related Literature

Accounting is a vital part of every business, whether large or small. Its role is to measure the financial performance of business activities during operation. For this reason, accounting determines the success or failure of businesses (Masanja, 2019), and accounting technology makes the accountant's job easier. It enhances the accountant's ability to interpret data efficiently and effectively.

Over the years, technological advancement



changed processes and industries completely, and its economic contributions are indicators of modern-day development. This includes CAS replacing manual accounting systems and generating more relevant and reliable financial information for decision-making (Greuning, 2006, as cited in Ndbuisi, 2017). Studies also suggest many advantages of computerized accounting systems and have concluded that this system is the engine of their growth (Ndbuisi, 2017). Most businesses now resort from manual to computerized systems and depend on technology to do their math to save time, effort, and money (Kasasbeh, 2016). Using a computerized system will reduce the problems associated with manual accounting systems. Also, the continuing changes in financial information needed for decision-making, if accurate, can increase the performance of businesses (Kwatinyuy, 2018).

In the study of Piyareh (2018), the most important duty of management is to make decisions, which requires different tools like CAS. A computerized accounting system (CAS) replaces manual accounting, recording, and other accounting applications with a simplified and easier way by using a computer. Besides meeting management requirements, it provides management analysis, forecasting, and decision-making opportunities (Wang, 2017). According to Zakaria (2017), the CAS creates an impact on major accounting areas, such as financial accounting (i.e., financial reporting), management accounting (i.e., budgeting), auditing, and financial control. Abdulle (2019) also stated that these reports must be designed in a good format and submitted promptly, which a computerized accounting system can do. CAS, however, does not affect the company's operation. This includes on-

task efficiencies in general, such as, but not limited to financial reporting and budgeting.

Most organizations adopt computerized accounting systems because they are more reliable, adequate, and relevant. It is also said that these systems made accounting tasks less complex and more accurate. Nevertheless, many accounting systems are popping out of the market, making it hard to differentiate one from the others. The frequent changes in these systems made them more vulnerable to threats that could lead to system damage and financial loss (Bansah, 2018). According to Rogers (2016), computerized accounting systems reduce the risk of failure in accounting processes, especially for small and medium enterprises (SMEs). SMEs are an essential part of the economy, and providing them with this kind of accounting tools and information can lead SMEs toward enhanced businesses.

CAS is mostly designed for larger companies. They are designed with specific hardware requirements, a wide array of accounts, and complicated processes that are hard to understand if they will be used by small businesses which cannot hire their accountants. The study on this gap and the output of this study will help those businesses achieve accurate and reliable information that will help them make decisions and eventually result in business growth. Furthermore, a good accounting system can simplify the owner's life, focusing more on growing their business (WK et al., 2017).



C. Research Framework

This research study is anchored on the technology, organization, environment (TOE) framework model developed in 1990 by Tornatzky and Fleischer. The variables in this framework, namely technological, organizational, and environmental context, are fit to determine the intention of a company to adopt an information system (Jere, 2020). It provides an analytical framework that can be used to study the adoption of CAS among the chosen research subjects. Likewise, the framework is highly applicable in predicting the adoption behavior of a firm considering an IT adoption (Habiba et al., 2019). The TOE framework includes three types of an enterprise's context that influence the process by which it adopts and implements a technological innovation: technological context, organizational context, and environmental context. Technological context refers to technical characteristics and availability for firms (Rosli et al., 201, as cited by Habiba et al., 2019), including perceived benefit and technology readiness. The organizational context describes the organization's measures, such as decision-making structure and communication process by top management, organization readiness, organization size, and organization working culture towards adopting new IT innovation (Rosli et al., 2012, as cited by Habiba et al., 2019). Environmental context includes external environment, internal environment factors, and customer-consumer influence. Study above shows that organizational context has a major effect on MSE's behavior to adopt a CAS depending on their financial readiness and size to adopt a CAS partially or fully. Thus, this study focuses on determining the factors directly affecting the readiness of MSEs to

adopt a CAS and create a suitable system.

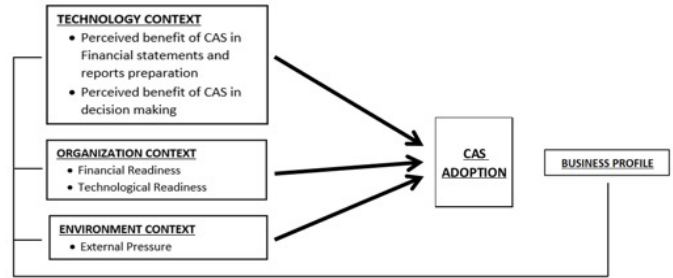


Figure 1. CAS adoption framework

Aside from small enterprises, microenterprises were also included as subjects for this paper. It focused on the technological, organizational, and environmental context and CAS adoption. Under technological context, perceived benefit in financial statements and reports preparation and perceived benefit of CAS in decision making were identified as predictors. Furthermore, financial and technological readiness served as the predictor for the organizational context. Lastly, external pressure was identified for the environmental context. It does not include firm performance since the purpose of the study is to assess the effects of the three contexts towards CAS adoption and did not need to measure its effects on firm performance. This study focuses on the factors within the TOE framework responsible for adopting CAS and whether a particular business has adopted fully or partially CAS in its accounting practice.

D. Research Objectives

This study aimed to investigate the effects of the technology, organization, and environmental contexts on the behavior of MSEs to adopt a computerized accounting system. Specifically, the study identified business characteristics of the respondents in terms of



their economic sector, length of business, firm size, and revenue. It determined if there are significant differences in perceptions of technological, environmental, and organizational contexts with CAS adoption when grouped according to their business characteristics. Likewise, it investigated if technology context in terms of perceived benefits of CAS in financial statement reports preparation and decision making, and organization context in terms of technological and financial readiness. Environment context in terms of external pressure significantly affects CAS adoption. Finally, it proposes a use case design for a modified computerized accounting system for MSEs for IT development and mobile applications.

To address the need of the study, the following hypotheses will be tested:

H_{01} : Perceptions on technology, organization and environment contexts have no significant differences when respondents are grouped according to their business' characteristics.

H_{02} : Technology context has no significant effect on CAS adoption.

H_{03} : Organization context has no significant effect on CAS adoption.

H_{04} : Environment context has no significant effect on CAS adoption.

MATERIALS AND METHODS

The researcher adopted the descriptive-causal and quantitative approach to determine MSEs accounting systems and CAS adoption. A descriptive research design is used when the study's findings generally reflect a large population (Kagucia, 2016). The proponent gathered a list of MSEs from the Local Permits

and Licensing office in the City Government of Lipa City, Batangas. The list includes the business names, owners, and addresses. Based on G*Power analysis with an effect size of 15% and a power of .95, the sampling size is 121 respondents at minimum. Study subjects were chosen using a random sampling approach. The target population of this study was MSEs in Lipa City, Batangas, who partially or fully adopted a computerized accounting system. MSEs who partially adopted CAS use a mix of manual accounting and simple accounting systems in specific areas, such as those with point of sales, inventory systems, and journal entries recorded in Excel. Furthermore, those who fully adopted CAS use a computerized system for all their accounting procedures.

The Senate of the Philippines defines micro-enterprises as those with assets up to Php3 million pesos that employ below ten employees. However, small enterprises have up to Php15 million pesos in assets that employ below 100 employees.

Primary data was gathered through a survey questionnaire with a 5-point Likert Scale interpreted as 1.00-1.50, very low, to 4.51-5.00, very high, adopted from the study of Habiba (2019). It is divided into three parts: the firm's business information, the CAS adoption assessment as dependent variable, and the assessment of the three independent variables, namely technology, organization, and environmental contexts. Business owners or those who handle their accounting records are qualified as participants in the study. A reliability test was performed using Cronbach's alpha to see the instrument's reliability. Table 3 shows that all the constructs have an acceptable value above 0.70.



Table 1. Reliability Test (Cronbach alpha)

Latent Construct	Cronbach alpha
Perceived benefit of CAS for FSRP	0.900
Perceived benefit of CAS for DM	0.854
Financial readiness	0.746
Technological readiness	0.834
External pressure	0.819

Note: FSRP (Financial statement and report preparation), DM (Decision making)

Frequency, mean, and standard deviation were used to describe the perceptions of the respondents on technical, organizational, and environmental contexts and their CAS Adoption. Multiple linear and logistic regression analyses have been adopted to determine factors affecting MSEs to adopt a CAS. It helps determine the strength of the relationship between the dependent and independent variables. This study used an analysis of variance (ANOVA) to determine the differences in perception and whether a relationship exists between the variables.

RESULTS AND DISCUSSION

Respondents of the study are mostly from the wholesale and retail industry (N=64, 52.9%) and accommodation or food services (N=36, 29.80%). In terms of length of business, the majority were operating for 5 to 10 years (N=78, 64.5%). Regarding the number of employees, the majority have a maximum of 2 to 9 employees (N=114, 94.2%), which falls under the microenterprises with Php1 to Php499,999 pesos of annual gross revenue (N=87, 71.90%).

Table 2. Respondents' Business Profile

	Frequency	Percent
Economic Sector		
Construction	7	5.80
Wholesale/Retail	64	52.90
Accommodation/Food Services	36	29.80
Administrative/Support Services	2	1.70
Arts/Entertainment/Recreation	12	9.90
Total	121	100.00
Length of Business		
less than 5 years	32	26.40
5-10 years	78	64.50
above 10 years	11	9.10
Total	121	100.00
Number of Employees		
2 - 9 employees	114	94.20
19 employees	7	5.80
Total	121	100.00
Annual Gross Revenue		
Php 1 - 499,999	87	71.90
Php 500,000 - 999,999	34	28.10
Total	121	100.00
CAS Adoption		
Partially Adopted	104	86.00
Fully Adopted	17	14.00
Total	121	100.00

Table 2 shows that eighty six percent (86%) of the 121-sample population partially adopted CAS, and 14% fully adopted the system. Comparing the results with the study of Habiba (2019), most small-scale businesses in Ethiopia and Lipa are not yet fully adopting the computerized accounting systems and are not aware of the benefits of using this kind of system.

Regarding adoption using TOE contexts, the study reveals that technology contexts with a composite mean of M=4.41 with a standard deviation of SD=0.71 are very high. This means that most respondents see the value of CAS as very helpful in their business transactions regarding financial statement preparation and decision-making.

Organization context was revealed to have a mean of M=3.48 (SD=0.77) and interpreted as high, mean-





ing MSEs have high consideration of their financial and technological readiness before adopting CAS. Furthermore, the environment context got a mean of $M=3.86$ ($SD=0.70$). This means that respondents see that external pressure from customers, suppliers, organizations, and businesses greatly impacts their adoption decisions ($M=3.86$). This shows that respondents agree that technology and environmental context directly affect their behavior in adopting CAS. In the same fashion, Wan Ismail and Ali (2013) study revealed the same perceptions on the above contexts and businesses' behavior on adopting and implementing technological innovation.

When grouped according to economic sectors, differences among technology, organization, and environment contexts are presented in Table 3. Based on the findings using analysis of variance, perceived benefits on preparation of financial statements and reports, perceived benefits on decision making in the context of technology, and external pressure in the environment were revealed to be not significant. Financial readiness and technological readiness in the organizational context showed a significant difference. Therefore, when grouped according to the economic sector, financial readiness and technological readiness in the context of an organization were significantly different. It also showed that among the economic sectors surveyed, MSEs in the construction sector considered financial and technology readiness as a significant factor in adopting CAS.

Table 3. Difference among Technology, Organization, and Environment Context when grouped according to Economic Sectors

Indicators	f-value	p-value
Perceived Benefits on Preparation of Financial Statements and Reports	1.777	.138
Perceived Benefits on Decision Making	.452	.771
Financial Readiness	12.503	.000
Technological Readiness	10.304	.000
External Pressure	.475	.754

Data on differentiation for identification of the economic sectors are rarely sufficient. They need supplementary data on a proper understanding of their activities, such as their market presence and competitors (OECD/Eurostat, 2019). Market placement and competitors with considerations in their financial and technological capacity greatly affect their decision to adapt to innovation (Marshall, 2019).

Table 4 shows the difference between technology, organization, and environment context when grouped according to the length of business. Based on the findings using analysis of variance, perceived benefits on preparation of financial statements and reports, perceived benefits on decision making in the context of technology, financial readiness and technological readiness in the context of the organization, and external pressure in the context of environment revealed to be not significant. In large-scale businesses, innovation is important to achieve long-term success. Smaller businesses, such as the MSEs, feel that there is no need to use computers to operate (Nugroho, 2017).

Table 4. Difference among Technology, Organization, and Environment Context when grouped according to Length of Business

Indicators	f-value	p-value
Perceived Benefits on Preparation of Financial Statements and Reports	1.318	.271
Perceived Benefits on Decision Making	.826	.440
Financial Readiness	.494	.611
Technological Readiness	.373	.689
External Pressure	.082	.921



Table 5 shows the difference between technology, organization, and environment context when grouped according to the number of employees. Based on the analysis of variance, perceived benefits of preparation of financial statements and reports, perceived benefits of decision making in the context of technology, and external pressure in the context of the environment were revealed to be not significant. Financial readiness and technological readiness in the organizational context showed a significant difference. Therefore, when grouped according to the number of employees, financial readiness and technological readiness in the context of an organization were significantly different. Businesses from the micro-enterprise group are revealed to have a high consideration of financial readiness in fully adopting CAS, and both micro and small enterprises consider technology readiness as a factor.

Table 5. Difference among Technology, Organization, and Environment Context when grouped according to Number of Employees

Indicators	f-value	p-value
Perceived Benefits on Preparation of Financial Statements and Reports	.756	.694
Perceived Benefits on Decision Making	.443	.942
Financial Readiness	30.773	.000
Technological Readiness	30.205	.000
External Pressure	.568	.863

In the article by Long (2019), technological innovations such as adopting information systems are needed by a lack of budget and skills. The purchase of the information system and the training needed for the employees are included in this budget. The number of employees will determine the total budget, a significant factor for a small business to pursue technological innovation.

Table 6 shows the difference between technology,

organization, and environment context when grouped according to company’s annual gross revenue. Based on the analysis of variance, perceived benefits of preparation of financial statements and reports, perceived benefits of decision making in the context of technology, and external pressure in the context of the environment were revealed to be not significant. Financial readiness and technological readiness in the organizational context showed a significant difference. Therefore, when grouped according to the company’s annual gross revenue, financial readiness and technological readiness in the organization’s context were significantly different. The study also shows that MSEs with annual gross revenue of Php500,000 – Php999,999 see financial and technology readiness as factors in whether they will fully adopt CAS.

Table 5. Difference among Technology, Organization, and Environment Context when grouped according to Number of Employees

Indicators	f-value	p-value
Perceived Benefits on Preparation of Financial Statements and Reports	1.037	.311
Perceived Benefits on Decision Making	.183	.669
Financial Readiness	1069.671	.000
Technological Readiness	402.673	.000
External Pressure	.085	.772

Mallinguh (2020) posits that capital budget significantly affects acquiring new technologies for one business to adopt information systems. Small business owners still find having external funding critical in implementing innovation strategies.

Logistic regression was used to analyze the relationships among technology contexts, organizational contexts, and environmental contexts, and CAS adoption (Table 7). An odds ratio of more than 1 indicates the likelihood or probability of predicting CAS full adoption. It was found that holding all other predictor variables constant, the odds of fully adopting CAS de-



increases by 0.476% (95% CI[-.135, 1.67; odds ratio of 0.476]) for a one-unit increase in perception of benefits for financial statement reports, but the effect is not significant (p-value = 0.217). Similarly, the odds of CAS full adoption occurring decreased by 0.765% (95% CI[0.348, 1.68; odds ratio = 0.765]) for an increase in perceived benefits on decision-making, but the effect is not significant (p-value = 0.132). When it comes to organizational contexts, holding all other predictor variables constant, the odds of CAS full adoption among MSEs occurring decreased by 0.13% (95% CI[0.0536, 0.291; odds ratio = 0.125]) for an increase in financial readiness and decreased by 0.24% (95% CI[0.125, 0.470; odds ratio = 0.243]) for an increase in technological readiness and the effects are significant (p-value < 0.05). This means that they are more likely to partially adopt the system. The probability of MSEs CAS full adoption increases by 8% with external pressure (95% CI[0.465, 0.252; odds ratio= 1.08]) and more likely to adopt fully a CAS but the probability is not significant (p-value > 0.05) for the study's set of respondents. In summary, MSEs will partially adopt CAS when they are organizationally and technologically ready and fully adopt the system when they are pressured by external entities.

MSEs are aware of the benefits CAS can bring to their businesses in terms of preparation of financial statements and reports and decision making. However, these benefits do not significantly influence adoption of CAS fully. Kurnia's (2016) study showed consistency in the result of this study, that perceived benefits are not significant factors in CAS adoption. Findings revealed that external entities have a significant effect on MSE's behavior to adopt CAS. This means that when MSEs are pressured because of industry trends, the likelihood of CAS adoption increases.

This suggests that small-scale businesses that partially adopted CAS consider their financial and technological capacity to adopt the system partially. The result of financial and technological readiness as a factor that greatly affects the behavior of small-scale business owners to adopt CAS fully is consistent with previous studies. This also suggests that these kinds of businesses need more funds, which prevents them from investing in technological advancement (Nugroho, 2017). Normally, when one is technologically ready, then one should be able to adopt CAS. Based on the survey results, they can develop a system fit for their operations other than the more sophisticated CAS if they have the infrastructure and skills.

Study also showed that external pressure from suppliers, customers, and regulatory bodies does not significantly affect MSE's behavior towards adopting CAS fully. Supplier, customer, and government requirements are suggested to be accomplished even if they do not fully adopt CAS. Previous studies suggested that greater external pressure results in the adoption of technological innovation, thus, the results

Table 7. Model Coefficients – CAS Adoption

Predictor	Estimate	SE	Z	p	Odds ratio	95% Confidence Interval	
						Lower	Upper
Intercept	-19.90	-31.7	-8.017	6.06	-3.28	0.001	2.27e-9
Prep of Financial Statements	-0.743	0.641	-1.16	0.247	0.476	0.135	1.67
Decision Making	-0.268	0.401	-0.668	0.504	0.765	0.348	1.68
Financial Readiness	-2.08	0.432	-4.82	< .001	0.125	0.0536	0.291
Technology Readiness	-1.42	0.338	-4.19	< .001	0.243	0.125	0.470
External Pressure	0.0796	0.431	0.185	0.853	1.08	0.465	2.52

Note. Estimates represent the log odds of "CAS Full ADOPT = 1" vs. "CAS Partial ADOPT = 0"
 *R² = 0.694





of this study are in parallel with the study of Habiba (2019).

CONCLUSION AND RECOMMENDATIONS

This study aims to identify the status of CAS adoption among MSEs in Lipa City, Batangas, and to determine what factors affect their behavior in adopting one. Most MSEs in Lipa City have only partially adopted CAS (N=104, 86).

In this study, five variables under three contexts were used and assessed on how they affect the behavior of MSEs to adopt CAS. These come from the TOE framework model from the study of Habiba (2019). With the results presented, only some of the hypotheses were supported.

Two variables were included in the technological context: perceived benefits in preparing financial statements and reports and perceived benefits in decision-making. Perceived benefit is the belief of one person that their specific behavior will have a positive outcome (Youn & Lee, 2019). Under this context, internal and external technologies are currently present in the business, and the consideration of adopting other technologies is explained (Habiboglu et al., 2020). Findings accepted H_{01} in terms of MSEs' behavior in adopting CAS. Though it does not significantly affect MSEs' decision to adopt CAS fully, results from the mean analysis show that most MSEs in Lipa City, Batangas, agree on CAS's perceived benefits.

Furthermore, findings for financial readiness and technological readiness under organizational context does not support H_{02} . This means that targeted MSEs

consider their financial resources in adopting CAS fully. This also suggests that whether they have the technical capacity or not, there is no significant effect on their decision to adopt CAS fully. However, according to Turner & Endres (2017), owners of small businesses must look for creative ways to support their financial needs in starting the business and the operations needed to run it. They can take advantage of loan programs to support their businesses (Lee, 2017).

Moreover, results also showed that external pressure under an environmental context has a significant effect on CAS adoption. This result did not support the H_{03} of this study. This agrees with the previous studies of Habiba (2019) and Thong (1999) as cited in the study of Habiba (2019). It suggests that environmental factors such as customers, suppliers, competitors, and regulatory bodies significantly affect their decision to adopt CAS partially or fully.

Lastly, the organization context significantly differs in their behavior to adopt CAS depending on their economic sector, firm size, and annual revenues. The results showed that those business characteristics significantly and positively affect CAS adoption on their financial and technological readiness. Businesses in the construction sector classified under micro and small enterprises, with annual gross revenue of Php500,00 – Php999,999, are also revealed to be considering the predictors under the organization context to affect their decision to adopt CAS fully significantly. This was shown in the findings for hypothesis H_{04} when the businesses are grouped according to their different business profiles.



In general, three out of the five variables have no significant effect on the behavior of MSEs in adopting CAS. It might relate to their need for more interest and knowledge in executing accounting standards properly. This may suggest that small business owners are unaware of the benefit of practicing proper accounting processes and producing good-quality financial reports. Having CAS has many advantages compared to manual accounting, as it tends to be faster, more accurate, and encounters minimal errors in recording financial transactions (Bullock, 2021).

This study examines the factors affecting the adoption of CAS in Lipa Batangas. The study’s findings have some implications in practice, particularly in developing MSEs with the CAS to generate accurate information timely. Moreover, this study will be beneficial for managers/owners of MSEs in helping them design strategies to take up challenges in financial and technical contexts tactfully to its advantage.

The finding reveals that respondents need to be more financially and technologically ready to partially adopt CAS. Thus, it is recommended first that a simplified computerized accounting system be designed to match the needs and financial capabilities of micro and small businesses in the area. Second, as part of the capability-building process of the MSEs, the government can allot budget assistance for the training and acquisition of computerized accounting systems. Lastly, future research can determine other factors that hinder or enhance CAS adoption. As stated previously, MSEs comprise 99.2% of the business sectors in the Philippines, so it is important to focus on their need to stay manageable. Therefore, future research

can also consider doing the same study with businesses that adopt CAS and do not use a computerized accounting system. Also, two-way ANOVA testing can be done to test differences between the contexts and the CAS adoption. Examining other variables under the TOE model may be beneficial in determining other factors that affect businesses’ behavior in adopting technological changes in their organization.

To increase the adoption rate of CAS, this study proposes a use case design presented in Figure 2 for a simplified CAS suited for small businesses that can be used for future IT developments.

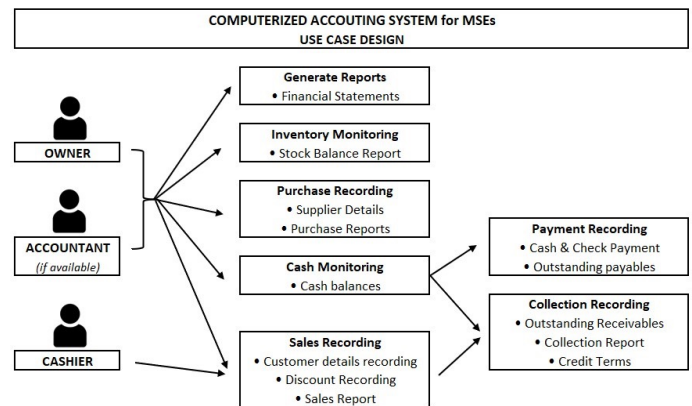


Figure 2. Proposed Use Case Diagram of a Computerized Accounting System for MSEs

The design presented in Figure 2 shows the basic functions of an MSE, such as generating reports, inventory, purchases, cash, and sales. It shows the users divided into three types, i.e., owners, accountants, and cashiers. This figure shows who the users are, and their limitations on accessing information. These users differ in their access and ability to manage data on the system. As most MSEs are small in terms of their firm size, the availability of an accountant might be absent. This figure also shows that whether they may or may not have an accountant, their responsibility is



similar to each other, giving them an overview of the business for decision-making.

This design is simpler than those readily available in the market and primarily for larger companies. This simplified process will decrease the cost of the system that can be developed in the future. This will not require high-specification equipment and can be easily integrated from their computers to mobile phones.

Aside from this design, a call for creating awareness of CAS among MSEs must be made for them to understand how it works and the benefit they can gain to increase the level of adoption.

Due to the nature of the study, wherein respondents from the MSE sector who partially or fully adopted CAS, perceptions of CAS may be limited from those who do not have CAS present in their business. The survey process was also conducted during the pandemic.

Respondents were informed of the objectives, risks, rights of research participants and implication of the research to target beneficiaries in the survey cover letter. Subjects were asked to sign an informed consent form/tick the box of agreement in the online survey form expressing their voluntary involvement and permission to record the interview. The identities of the participants were kept confidential and will be discarded within the allowable period under the law.

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