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Innovation Management and Refund Performance among the Department of Science and Technology (DOST)-Assisted Enterprises: Implications to an Enhancement Program

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Abstract

This study analyzed the relationship between innovation management and refund performance of the MSMEs assisted by DOST in Western Visayas. Also, it investigated whether significant differences would exist in the innovation management and refund performance of the firms when grouped according to the characteristics of the firm and the owner. The study used a survey-correlational design utilizing a self-administered questionnaire on innovation available in the public domain. The respondents are owners or key personnel selected through stratified simple random sampling from a population of 341 assisted firms. There were 92 MSMEs that participated in the study. The statistical tools used were frequency count and percentage, mean, and standard deviation for descriptive statistics and the Chi-square test for inferential statistics with a significance test set at .05. The results suggest that innovation management had no relationship with the refund performance of the MSMEs. Location, number of employees, and size affect firms' active implementation of product innovations. Also, the number of employees and size influence their active execution of organizational innovations. The owner's long business experience affects their high refund performance. A strategic location facilitates easy access to sources and suppliers of raw materials, transportation, labor, utilities, and customers, among others that fuel product innovations. The number of employees and size affect their capacity to implement product innovation since the creation of new products requires more than a few workers and investment from the company. The owners with long business experience are more committed to repaying their financial obligations because they want to maintain their good creditworthiness rating.

Keywords: *micro, small, and medium enterprises, product innovation, process innovation, organizational innovation, marketing innovation*

INTRODUCTION

Innovation has been recognized by governments as a crucial factor in sustaining economic growth and development. It is also essential in coming up with long-term responses to any challenges, such as adapting to the new normal with the occurrence of the COVID-19 pandemic.

The Global Innovation Index (GII) Report showed that the Philippines ranked 50th in 2020, 51st in 2021, and moved down to 59th place in 2022. The results of the 2020 GII on domestic value added (DVA) and total production output in high technology sectors were analyzed and the results showed that the Philippines is the only country among the ASEAN-6 nations, namely, Brunei, Indonesia, Malaysia, Singapore, and Thailand whose DVA in its gross exports failed to reach US$100 billion in 2018 (Li, 2021). The finding underscored the incapability of local firms to produce high-value products, resulting in a low DVA, and the high GII ranking in key high-tech sectors was attributed to multinational corporations rather than homegrown enterprises.

Among the three main islands of the country, Albert et al. (2018) found that the Visayas has the lowest number of firms that were innovation-active and product innovators at 36.6% and 27.5%, correspondingly. However, it has the biggest share of firms with public financial support for innovation, are marketing innovators, and are aware of any government innovation policy or intervention across areas at 6.3%, 49.2%, and 30.9%, respectively.

To promote innovation and boost the productivity and competitiveness of the MSMEs, the DOST offers a wide range of science and technology solutions under its Small Enterprise Technology Upgrading Program (SETUP). A primary component of the program is the SETUP Innovation-Enabling Fund (SETUP *i*Fund) which provides financial assistance to eligible MSMEs to acquire the appropriate technology for implementing innovations. The financial assistance is not a grant so the MSMEs are required to fully refund or return it to the government within a period of three to five years without interest with a one-year grace period. In Western Visayas, a total of 517 MSMEs had availed of the DOST's SETUP *i*Fund from 2003 to 2021.

However, focusing on the program's refund performance, the agency's report showed that it is below 90%. From 2018 to 2019, the national refund performance was 86%, it declined to 79% in 2020 and increased to 80% in 2021. For Western Visayas, refund performance was 86% in 2018 and 85% from 2019 to 2021.

Ideally, assisted MSMEs should be able to return the assistance to the government so that the agency can justify the continuous implementation of its program since the funds are recovered as planned and are used to upgrade many other enterprises. Likewise, MSMEs should be able to innovate in different aspects of their operation such as generating improved goods and services to become competitive.

A study on innovation management and refund performance of business enterprises is very limited which is a gap that this study hopes to fill. A low refund performance is a symptom that needs to be studied so that appropriate actions can be implemented. The association between innovation management and the refund performance of enterprises can provide insights and empirical basis to agencies in enhancing programs, projects, and activities to promote innovation and growth of the MSME sector.

Objectives of the Study

This study was conducted to determine the innovation management and refund performance among the Department of Science and Technology (DOST)-assisted enterprises and the implications to an enhancement program.

The specific objectives of the study include the following:

1. To describe the MSMEs' characteristics in terms of location, industry classification, years in operation, type of ownership, geographic market, number of employees, and size.
2. To describe the owners' characteristics in terms of age, sex, highest educational attainment, and length of business experience.
3. To describe the MSMEs' innovation management in terms of product innovation, process innovation, organizational innovation, and marketing innovation when grouped according to the firms' characteristics (location, industry classification, years in operation, type of ownership, geographic market, number of employees and size) and owners' characteristics (age, sex, highest educational attainment, and length of business experience).
4. To describe the MSMEs' refund performance when grouped according to the firms' characteristics (location, industry classification, years in operation, type of ownership, geographic market, number of employees, and size) and owners' characteristics (age, sex, highest educational attainment, and length of business experience).
5. To determine if significant differences exist in the innovation management among MSMEs when grouped according to the firm's and the owner's characteristics.
6. To determine if significant differences exist in the refund performance among MSMEs when grouped according to the firm's and the owner's characteristics.
7. To determine if significant relationships exist among the MSMEs' innovation management in terms of product innovation, process innovation, organizational innovation, marketing innovation, and refund performance.

Hypotheses

1. No significant differences exist in the innovation management among MSMEs when grouped according to their characteristics (location, industry classification, years in operation, type of ownership, geographic market, number of employees, and size) and owners' characteristics (age, sex, highest educational attainment, and length of business experience).
2. No significant differences exist in the refund performance among MSMEs when grouped according to their characteristics (location, industry classification, years in operation, type of ownership, geographic market, number of employees, and size) and owners' characteristics (age, sex, highest educational attainment, and length of business experience).
3. No significant relationships exist among the MSMEs' innovation management in terms of product innovation, process innovation, organizational innovation, marketing innovation, and refund performance.

Theoretical Framework

This study is anchored on Schumpeter's Theory of Innovation which suggests that business innovation is the major reason for increased investments and business fluctuations (Meghan, 2016). In Schumpeter's view, boosting business

performance is the primary reason that firms innovate. A positive effect of innovation will result in better performance of the firm while a negative effect will be evidenced by low performance.

Moreover, this study is grounded on the Theory of the Firm which states that a firm exists and makes decisions to maximize profits (Murphy, 2020). The firm will find ways to increase revenue and lower costs in the short run but it will procure fixed assets like equipment to ensure its profitability in the long run. The cash invested in assets will certainly affect profits in the short term but will help in the long-term viability of the firm.

Conceptual Framework

The antecedent variables of the study are the MSME characteristics in terms of location, industry classification, years in operation, type of ownership, geographic market, number of employees, and size; and owners' characteristics in terms of age, sex, highest educational attainment, and length of business experience. Innovation management and refund performance are the independent and dependent variables, respectively.

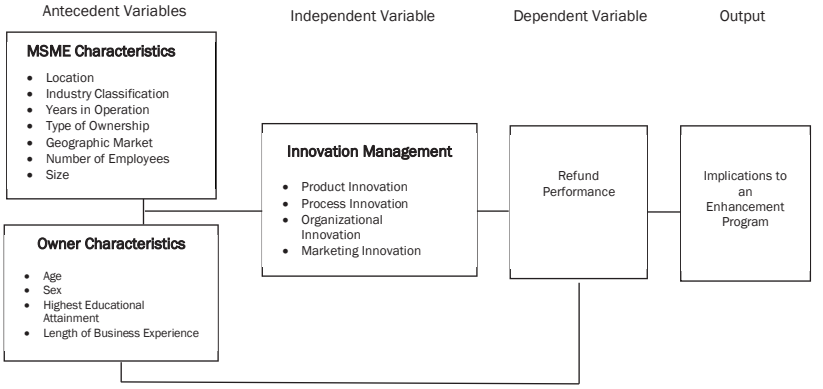

Figure 1. Innovation Management and Refund Performance among the Department of Science and Technology (DOST)-Assisted Enterprises: Implications to an Enhancement Program

Significance of the Study

The result of the study would benefit the MSMEs and their owners since an improved understanding of the prevailing innovation practices would result in better programs, projects, and activities that can be availed from concerned institutions involved in developing the sector. The DOST would be greatly benefitted from the results of this study since they could serve as their basis for enhancing the delivery of their services provided under SETUP as its flagship program in assisting the MSMEs.

Moreover, the DTI, LGUs, academe, and other private and public institutions involved in developing the MSME sector would be benefitted from this study because the insights generated could provide ideas in the conceptualization and implementation of innovative policies, programs, projects, and activities to advance the development of the sector. Lastly, other researchers could utilize this study as a reference to answer their research questions.

Scope and Limitations of the Study

Given the objectives, a survey-correlational research design was utilized. The participants of the study were the 92 owners or key personnel of MSMEs randomly selected from the 341 assisted firms by the DOST under its SETUP *i*Fund from 2003 to 2020 in Western Visayas.

The data collection was conducted from March to April 2023 covering the six provinces of Western Visayas. The gathered data were electronically tabulated utilizing the SPSS version 24. Frequency count, percentage, mean, and standard deviation were employed for the descriptive statistics; and the chi-square test was used for inferential statistics, set at a .05 level of significance.

Related Literature and Studies

In the Philippines, the government is offering directed credit programs (DCPs) to individuals, business enterprises, or a defined sector of the population for production, working capital, processing, etc. for them to carry out important developmental activities (Llanto et al., 1999). The DOST, Cooperative Development Agency (CDA), and Department of Agriculture (DA) were among the agencies that implement DCPs.

Llanto et al. (n.d.) found that generally, the interest rates range from 0% to 24%. The interest varies depending on the loan purpose, maturity, collateral requirements, and firm size. It is higher for fixed asset loans, medium- to long-term loans, non-fully collateralized loans, and larger SMEs, accordingly. Likewise, the applicable interest rates are either on diminishing loan balances or on a flat rate basis.

Moreover, Geron et al. (2016) found that all of the government's credit programs for smallholders involving farmers have both short and long terms. The short-term loan has a duration of six months to one year, while the long-term loan is good for one year and more, except for Sikat Saka and Agrarian Production Credit Program (APCP) which provides only short-term loans.

One of the concerns in implementing DCPs is the low repayment rates in which one of the reasons cited is the dole-out mindset of the borrowers who consider the loans as grants that should not be paid. This claim was confirmed by Subbarao et al. (1996) who found that the unsatisfactory repayment rates of the livelihood programs they reviewed were due to the borrowers' reluctance and not incapability to repay the loans Llanto (n.d.).

Many studies underscored that innovative activities result in improved performance of the firm. It was found to be an important factor in increasing the profit and market share of the majority of firms (Merono-Cerdan & Lopez-Nicolas, 2017; Shujahat et al., 2019). Mai et al. (2019) found that innovation positively influenced the profitability of firms both in the short and long term.

Llanto and Prado (2015) found that sales, profits, and labor productivity increased as a result of product and process innovations. Likewise, it was concluded that the important factors which led firms to innovate are size, age, and foreign equity.

However, some studies showed that innovation did not always result in improved performance. Oliveira et al. (2018) found that the impacts of innovation do not necessarily result in the improved financial condition of firms. There are risks involved in innovating such as producing new products which will not increase short-term profits.

Consequently, Hai et al. (2022) found that there is an increase in the cost of goods when companies carry out innovation which affected profitability as well as shareholders' returns. At first, producers of new products undergo the danger of newness such as tensions with existing organizations (Gimenez-Fernandez et al., 2020). Yang and Aldrich (2017) pointed out that complicated issues were encountered by evolving organizations or those having new technologies or products that affect their viability which may include their lack of legality, limited linkages among industry players, and how to rapidly put together the needed resources.

METHODOLOGY

Research Design

This study, which aimed to determine the relationship between innovation management and refund performance among DOST-assisted enterprises, utilized a survey-correlational design. Survey research is deemed to be one of the most common data collection methods for correlational research which is a quantitative approach using measures and samples carefully selected by the researcher (Price et al., 2015).

Participants of the Study

The respondents were the 92 owners or key personnel of MSMEs randomly selected from the 341 firms assisted by the DOST under its SETUP *i*Fund from 2003 to 2020 in Western Visayas. The sample size of 181 was determined using a sampling formula, however, only 92 firms participated.

Research Instrument

The study adopted the Survey on Innovation Activity (SIA) questionnaire used by the Philippine Statistics Authority (PSA) and Philippine Institute for Development Studies (PIDS) which is available in the public domain. However, additional data, namely, the highest educational attainment, and length of business experience of the owner were added in the last part of the questionnaire.

Ethical Consideration

The researcher acquired an ethical clearance from the CPU Research Ethics Committee last January 19, 2023. Permission from the Regional Director of the DOST Regional Office VI was secured before the deployment of the survey questionnaires. The consent of the participants to take part in the study was obtained using the standard Informed Consent Form (ICF) of the University.

Data Gathering Procedure

The researcher secured the approval to carry out the study from the School of Graduate Studies and ethical clearance from the CPU Research Ethics Committee. To make sure of a high response rate, the researcher obtained the approval of the DOST VI Regional Director to allow the distribution of the survey questionnaires during the annual forum being conducted by the office per province. During the forum, the researcher presented the Informed Consent Form (ICF) and distributed the survey

questionnaire. The MSMEs were requested to sign the Certificate of Consent for those who are willing to participate in the study.

Data Processing Procedure

Editing was performed on completed questionnaires to discover errors, blanks, discrepancies in responses, and the like. Then, the data were encoded, a data file was created and electronically tabulated using the SPSS version 24. Based on the participant's answers to the general information, the MSME and owner characteristics were determined. The MSMEs' responses to the questions on innovation management in terms of product innovation, process innovation, organizational innovation, and marketing innovation were also defined.

Moreover, based on the result of their refund performance as of December 31, 2021, the participants were categorized as having above-average performance if the result is from 100% to 85%; average performance if the score is from 84% to 69%; and below average if the score is 68% to 0%.

Statistical Data Analysis Procedure

Descriptive analysis was used to present and describe the characteristics of the enterprise and the owner, the innovation management, and the refund performance of the MSMEs. The descriptive statistics employed were frequency count, percentage, mean, and standard deviation. Likewise, an inferential analysis was done to test if significant differences and relationships would exist among variables. The inferential statistics used was the chi-square test at a .05 level of significance.

RESULTS AND DISCUSSION

Table 1 shows the profile of the MSMEs that participated in the study wherein a large portion are from Iloilo. The majority are engaged in food processing and are in the start-up and growth stages. Most are single proprietorship enterprises operating locally, and the majority have 1 to 9 employees and are classified as micro-enterprises.

Table 1
Characteristics of the Micro, Small, and Medium Enterprises

	Category	f	%
A.	**Entire group**	92	100
B.	**Location**		
	Aklan	12	13
	Antique	12	13
	Capiz	8	9
	Guimaras	18	20
	Iloilo	23	25
	Negros Occidental	19	21
C.	**Industry Classification**		
	Food Processing	61	66
	Crop, Animal Production, Hunting, Fishing and Aquaculture	8	9
	Fabricated Metal Products & Machinery and Equipment Manufacturing	9	10
	Furniture Manufacturing	5	5
	Other Manufacturing Industries	9	10
D.	**Years in Operation**		
	10 years & below (Startup Phase)	31	34
	11 to 20 years (Growth Phase)	31	34
	21 to 30 years (Maturity Phase)	17	18
	31 years & above (Renewal/Decline Phase)	13	14
E.	**Type of Ownership**		
	Single Proprietorship	71	77
	Partnership	3	3
	Corporation	18	20
F.	**Geographic Market**		
	Local (in the region only)	67	73
	National (in the country only)	14	15
	Local, National & Other Countries	11	12
G.	**Number of Employees**		
	1 to 9	48	52
	10 and above	44	48
H.	**Size**		
	Micro	48	52
	Small	44	48

The findings are consistent with the 2020 Philippine MSME Statistics which showed that of the total employment contribution of MSMEs (64.67%) in the country, MSMEs that hire 1 to 9 employees accounted for 50.2%. Likewise, of the total number of MSMEs (99.58%) in the country, microenterprises accounted for 90.93% (DTI, n.d.). The slow transition of the MSMEs from micro to small and small to large was affected by the numerous challenges they face and was aggravated by the occurrence of the COVID-19 pandemic. Based on DTI's Impact Assessment Survey of COVID-19 on the MSME Sector, more than a quarter (27.7%) had stopped operating, more than half (52.5%) partially operated, and only 19.8% fully opened (UN, n.d.).

Moreover, the results supported the findings of the 2019 Annual Survey of Philippine Business and Industry (ASPBI) – Economy-wide Preliminary Results which showed that the manufacturing industry where food processing belongs ranked fourth and third in terms of the number of establishments and employment generated, respectively, among the 18 economic sectors (PSA, 2022).

The results were in line with the findings of the Consumer Price Index (CPI) of All Income Households in Western Visayas: April 2022 which states that Iloilo had the lowest CPI at 105, the slowest inflation rate at 1.9, and the highest purchasing power of the peso (PPP) at 0.93 (PSA, 2022). The CPI means that in April 2022, to afford a basket of goods valued at 100 pesos in 2018, households in Iloilo will need an additional 5 pesos only to buy the same basket of goods as compared to other provinces wherein an additional 6.6 pesos or more is needed. A low but positive inflation rate is good as this will not cause an imbalance in supply and demand, and will not erode purchasing power. Likewise, a high PPP is beneficial because given the consumers' income, they can buy more goods or services thus, and they are encouraged to spend or buy more.

Table 2 presents the profile of the owners wherein a large number were in the 55- to 64-year-old bracket; the majority are females and college graduates; and had 11 years and more of business experience.

The results supported the labor survey which showed that the Labor Force Participation Rate (LFPR) among males was higher compared to females (PSA, 2022). Likewise, the finding of the 2019 Functional Literacy, Education, and Mass Media Survey wherein there were more female college graduates than males (PSA, 2019).

Table 2
Characteristics of the Owners

	Category	f	%
A.	**Entire group**	92	100
B.	**Age**		
	44 years old and below	23	25
	45 to 54 years old	25	27
	55 to 64 years old	27	29
	65 years old and above	17	18
B.	**Sex**		
	Male	43	47
	Female	49	53
C.	**Highest Educational Attainment**		
	High School & Post-Secondary Graduate	3	3
	College Undergraduate	12	13
	College Graduate	67	73
	Post Baccalaureate	10	11
D.	**Length of Business Experience**		
	5 years and below	7	8
	6 to 10 years	23	25
	11 years and more	62	67

Table 3 shows the innovation management of participants categorized by MSME characteristics which shows that the majority introduced product innovations in terms of new or significantly improved goods; implemented process innovations in terms of new or significantly improved manufacturing methods; executed organizational innovations in terms of significant changes to the organization of work; and introduced marketing innovations in terms of the use of new pricing methods to market goods and services.

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Table 3
Innovation Management of MSMEs when grouped according to MSME characteristics

MSME Characteristics	Innovation Management									
	Product Innovation				Process Innovation					
	New or Significantly Improved Goods		New or Significantly Improved Services		New or Significantly Improved Manufacturing Methods		New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
A. Location	48	52	36	39	43	47	36	39	33	36
Aklan	11	12	8	9	8	9	6	7	6	7
Antique	6	7	5	5	7	8	5	5	6	7
Capiz	5	5	3	3	3	3	2	2	2	2
Guimaras	6	7	3	3	9	10	6	7	5	5
Iloilo	11	12	9	10	8	9	8	9	7	8
Negros Occ.	9	10	8	9	8	9	9	10	7	8

MSME Characteristics	Innovation Management													
	Marketing Innovation													
	Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
B. Industry Classification	48	52	36	39	43	47	36	39	33	36				
Food Proc.	35	38	24	26	30	33	25	27	24	26				
Other Industries	13	14	12	13	13	14	11	12	9	10				
C. Years in Op.	48	52	36	39	43	47	36	39	33	36				
Startup	17	18	11	12	16	17	11	12	11	12				
Growth	13	14	13	14	12	13	14	15	14	15				
Maturity	10	11	8	9	10	11	8	9	6	7				
Renewal/Decline	8	9	4	4	5	5	3	3	2	2				
D. Type of Ownership	48	52	36	39	43	47	36	39	33	36				
Single Prop.	36	39	25	27	34	37	29	32	23	25				
Partnership	1	1	1	1	0	0	0	0	0	0				
Corporation	11	12	10	11	9	10	7	8	10	11				
E. Geographic Market	48	52	36	39	43	47	36	39	33	36				
Local	36	39	25	27	31	34	26	28	25	27				
National	4	4	4	4	7	8	4	4	4	4				
Local, Nat'l & Other Countries	8	9	7	8	5	5	6	7	4	4				
F. No. of Employees	48	52	36	39	43	47	36	39	33	36				
1 to 9	21	23	11	12	18	20	16	17	12	13				
10 & above	27	29	25	27	25	27	20	22	21	23				
G. Size	48	52	36	39	43	47	36	39	33	36				
Micro	21	23	11	12	18	20	16	17	12	13				
Small	27	29	25	27	25	27	20	22	21	23				

MSME Characteristics	Innovation Management													
	Marketing Innovation													
	Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
A. Location	41	45	34	37	47	51	46	50	48	52	33	36	53	58
Aklan	6	7	4	4	7	8	5	5	6	7	5	5	8	9
Antique	6	7	6	7	6	7	6	7	7	8	5	5	6	7
Capiz	7	8	5	5	6	7	7	8	6	7	4	4	7	8
Guimaras	7	8	5	5	9	10	10	11	9	10	6	7	14	15
Iloilo	7	8	6	7	8	9	11	12	9	10	6	7	11	12
Negros Occ.	8	9	8	9	11	12	7	8	11	12	7	8	7	8
B. Industry Classification	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Food Proc.	26	28	26	28	32	35	30	33	34	37	23	25	37	40
Other Industries	15	16	15	16	15	16	16	17	15	16	10	11	16	17
C. Years in Op.	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Startup	16	17	13	14	19	21	17	18	17	18	12	13	19	21
Growth	14	15	13	14	14	15	16	17	15	16	8	9	21	23
Maturity	8	9	5	5	8	9	8	9	9	10	7	8	9	10
Renewal/Decline	3	3	3	3	6	7	5	5	7	8	6	7	4	4
D. Type of Ownership	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Single Prop.	32	35	26	28	37	40	35	38	37	40	26	28	45	49
Partnership	1	1	0	0	1	1	1	1	1	1	1	1	1	1
Corporation	8	9	8	9	9	10	10	11	11	12	6	7	7	8
E. Geographic Market	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Local	27	29	25	27	31	34	31	34	32	35	21	23	39	42
National	6	7	3	3	8	9	7	8	8	9	5	5	7	8
Local, Nat'l & Other Countries	8	9	6	7	8	9	8	9	9	10	7	8	7	8
F. No. of Employees	41	45	34	37	47	51	46	50	49	53	33	36	53	58
1 to 9	18	20	14	15	21	23	22	24	24	26	17	18	29	32
10 & above	23	25	20	22	26	28	24	26	25	27	16	17	24	26
G. Size	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Micro	18	20	14	15	21	23	22	24	24	26	17	18	29	32
Small	23	25	20	22	26	28	24	26	25	27	16	17	24	26

Tables 4 presents the innovation management of participants categorized by the owner characteristics which indicated that the majority of the owners introduced product innovations in terms of new or significantly improved goods; implemented process innovations in terms of new or significantly improved manufacturing methods; executed organizational innovations in terms of significant changes to the organization of work; and introduced marketing innovations in terms of the use of new pricing methods to market goods and services.

Table 4

Innovation Management of Participants in Terms of the Owner Characteristics

	Owners Characteristics	Innovation Management									
		Product Innovation				Process Innovation					
		New or Significantly Improved Goods		New or Significantly Improved Services		New or Significantly Improved Manufacturing Methods		New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
		f	%	f	%	f	%	f	%	f	%
A.	**Age**	48	52	36	39	43	47	36	39	33	36
	44 yrs old &below	15	16	12	13	15	16	13	14	11	12
	45to54ysold	11	12	8	9	11	12	10	11	11	12
	55to64ysold	12	13	10	11	11	12	6	7	5	5
	65 yrs old & above	10	11	6	7	6	7	7	8	6	7
B.	**Sex**	48	52	36	39	43	47	36	39	33	36
	Male	24	26	20	22	21	23	17	18	19	21
	Female	24	26	16	17	22	24	19	21	14	15
C.	**Highest Edu. Attainment**	48	52	36	39	43	47	36	39	33	36
	HS & Post Sec. Grad.	3	3	2	2	3	3	2	2	2	2
	CollegeUndergraduate	6	7	4	4	6	7	4	4	3	3
	College Graduate	34	37	24	26	29	32	27	29	23	25
	Post Bacc.	5	5	6	7	5	5	3	3	5	5
D.	**Length of Bus. Experience**	48	52	36	39	43	47	36	39	33	36
	5 yrs & below	4	4	2	2	3	3	3	3	3	3
	6 to 10 yrs	10	11	8	9	10	11	6	7	4	4
	11 yrs & more	34	37	26	28	30	33	27	29	26	28

	Owners Characteristics	Innovation Management									
		Organizational Innovation									
		New or Significantly Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
		f	%	f	%	f	%	f	%	f	%
A.	**Age**	34	37	31	34	50	54	33	36	32	35
	44 yrs old & below	11	12	9	10	13	14	8	9	8	9
	45 to 54 yrs old	9	10	8	9	12	13	9	10	7	8
	55 to 64 yrs old	10	11	9	10	18	20	12	13	13	14
	65 yrs old & above	4	4	5	5	7	8	4	4	4	4
B.	**Sex**	34	37	31	34	50	54	33	36	32	35
	Male	17	18	17	18	25	27	17	18	17	18
	Female	17	18	14	15	25	27	16	17	15	16
C.	**Highest Edu. Attainment**	34	37	31	34	50	54	33	36	32	35
	HS & Post Sec. Grad.	1	1	1	1	1	1	0	0	1	1
	College Undergraduate	2	2	1	1	5	5	2	2	4	4
	College Grad.	27	29	24	26	39	42	27	29	24	26
	Post Baccalaureate	4	4	5	5	5	5	4	4	3	3
D.	**Length of Bus. Exp.**	34	37	31	34	50	54	33	36	32	35
	5 yrs & below	5	5	2	2	4	4	0	0	2	2
	6 to 10 yrs	8	9	5	5	11	12	5	5	7	8
	11 yrs & more	21	23	24	26	35	38	28	30	23	25

	MSME Characteristics	Innovation Management Marketing Innovation													
		Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
		f	%	f	%	f	%	f	%	f	%	f	%	f	%
A.	**Age**	41	45	34	37	47	51	46	50	49	53	33	36	53	58
	44 yrs old & below	13	14	10	11	17	18	14	15	13	14	9	10	15	16
	45 to 54 yrs old	12	13	11	12	17	18	12	13	13	14	6	7	15	16
	55 to 64 yrs old	10	11	7	8	9	10	14	15	17	18	12	13	17	18
	65 yrs old & above	6	7	6	7	5	5	6	7	6	7	6	7	6	7
B.	**Sex**	41	45	34	37	47	51	46	50	49	53	33	36	53	58
	Male	21	23	18	20	19	21	20	22	25	27	17	18	26	28
	Female	20	22	16	17	28	30	26	28	24	26	16	17	27	29
C.	**Highest Edu. Attainment**	41	45	34	37	47	51	46	50	49	53	33	36	53	58
	HS & Post Sec. Grad.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	College Undergraduate	5	5	3	3	6	7	7	8	6	7	3	3	5	5
	College Grad.	28	30	25	27	34	37	32	35	36	39	25	27	40	43
	Post Baccalaureate	6	7	4	4	5	5	5	5	5	5	3	3	6	7
D.	**Length of Bus. Exp.**	41	45	34	37	47	51	46	50	49	53	33	36	53	58
	5 yrs & below	4	4	4	4	4	4	3	3	4	4	2	2	4	4
	6 to 10 yrs	11	12	7	8	15	16	13	14	14	15	8	9	17	18
	11 yrs & more	26	28	23	25	28	30	30	33	31	34	23	25	32	35

Table 5 shows the refund performance of participants in terms of MSME characteristics which revealed that, it was above average across all categories of the MSME characteristics (location,

industry classification, years in operation, type of ownership, geographic market, number of employees, and, size).

Table 5
Refund Performance of Participants in Terms of MSME Characteristics

MSME Characteristics	Refund Performance								Mean	Std. Dev.
	Above Ave.		Average		Below Ave.		Total			
	f	%	f	%	f	%	f	%	μ	s
A. Location	87	95	2	2	0	0	92	100	97	12
Aklan	12	13	0	0	0	0	12	13	100	0
Antique	12	13	0	0	2	2	12	13	100	2
Capiz	6	7	0	0	0	0	8	9	82	35
Guimaras	18	20	0	0	0	0	18	20	99	2
Iloilo	22	24	1	1	1	1	23	25	99	4
Negros Occ.	17	18	1	1	3	3	19	21	96	11
MSME Characteristics	**Refund Performance**								**Mean**	**Std. Dev.**
	Above Ave.		**Average**		**Below Ave.**		**Total**			
	f	**%**	**f**	**%**	**f**	**%**	**f**	**%**	**μ**	**s**
B. Industry Classification	92	100	2	2	3	3	92	100	97	12
Food Processing	61	66	1	1	1	1	61	66	98	13
Other Industries	31	34	1	1	2	2	31	34	97	12
C. Years in Operation	87	95	2	2	3	3	92	100	97	12
Startup	29	32	0	0	2	2	31	34	95	19
Growth	30	33	1	1	0	0	31	34	99	3
Maturity	16	17	0	0	1	1	17	18	98	9
Renewal/ Decline	12	13	1	1	0	0	13	14	97	6
D. Type of Ownership	87	95	2	2	3	3	92	100	97	12
Single Proprietorship	67	73	2	2	2	2	71	77	97	13
Partnership	2	2	0	0	1	1	3	3	88	21
Corporation	18	20	0	0	0	0	18	20	100	0
E. Geographic Market	87	95	2	2	3	3	92	100	97	12
Local	62	67	2	2	3	3	67	73	97	14
National	14	15	0	0	0	0	14	15	99	2
Local, National & Other Countries	11	12	0	0	0	0	11	12	98	4
F. No. of Employees	87	95	2	2	3	3	92	100	97	12
1 to 9	45	49	2	2	1	1	48	52	97	15
10 and above	42	46	0	0	2	2	44	48	98	9
G. Size	87	95	2	2	3	3	92	100	97	12
Micro	45	49	2	2	1	1	48	52	97	15
Small	42	46	0	0	2	2	44	48	98	9

Table 6 presents the refund performance of participants in terms of owner characteristics which showed that the majority of the MSMEs have above-average refund performance in terms of age, sex, highest educational attainment, and length of business experience.

Table 6
Refund Performance of Participants in Terms of Owner Characteristics

Owners Characteristics	Refund Performance								Mean	Std. Dev.
	Above Ave.		Average		Below Ave.		Total			
	f	%	f	%	f	%	f	%	μ	%
A. Age	87	95	2	2	3	3	92	100	97	12
44 yrs old & below	22	24	1	1	0	0	23	25	98	5
45 to 54 yrs old	23	25	0	0	2	2	25	27	94	22
55 to 64 yrs old	25	27	1	1	1	1	27	29	97	8
65 yrs old & above	17	18	0	0	0	0	17	18	100	1
B. Sex	87	95	2	2	3	3	92	100	97	12
Male	40	43	1	1	2	2	43	47	96	17
Female	47	51	1	1	1	1	49	53	98	6
C. Highest Educational Attainment	87	95	2	2	3	3	92	100	97	12
HS & Post Sec. Grad.	3	3	0	0	0	0	3	3	100	0
College Undergrad.	12	13	0	0	0	0	12	13	99	2
College Grad.	63	68	1	1	3	3	67	73	96	14
Post Bacc.	9	10	1	1	0	0	10	11	98	5
D. Length of Business Experience	87	95	2	2	3	3	92	100	97	12
5 yrs & below	5	5	0	0	2	2	7	8	79	39
6 to 10 yrs	23	25	0	0	0	0	23	25	99	2
11 yrs & more	59	64	2	2	1	1	62	67	98	6

Tables 7 to 13 show the differences among the product, process, organizational, and marketing innovations when MSMEs were classified according to location, industry classification, years in operation, type of ownership, geographic market, number of employees, and size. The results revealed that location, number of employees, and size affect the active implementation of product innovations by MSMEs. Also, the number of employees and size influence the MSMEs' active implementation of organizational innovations. The result supported the finding of Llanto and Prado (2015) which concluded that size led firms to innovate. Moreover, it confirmed the finding of Albert et. al (2018) which states that firms in NCR and Balance Luzon, all other things equal, are more likely to be product innovators than firms in Mindanao (and other areas). However, the result did not support the finding that the size of the establishment is a significant determinant of process innovation only (Albert et. al, 2018).

All other firm characteristics do not affect product, process, organizational, and marketing innovations.

Table 7
Differences in Innovation Management of MSMEs by Location

MSME Characteristics	Innovation Management									
	Product Innovation						Process Innovation			
	New or Significantly Improved Goods		New or Significantly Improved Services		New or Significantly Improved Manufacturing Methods		New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
Location	48	52	36	39	43	47	36	39	33	36
Aklan	11	12	8	9	8	9	6	7	6	7
Antique	6	7	5	5	7	8	5	5	6	7
Capiz	5	5	3	3	3	3	2	2	2	2
Guimaras	6	7	3	3	9	10	6	7	5	5
Iloilo	11	12	9	10	8	9	8	9	7	8
Negros Occ.	9	10	8	9	8	9	9	10	7	8
$X^2(5)=13.843$, $p=.017$					$X^2(10)=1.224$, $p=.943$					

MSME Characteristics	Organizational Innovation											
	New or Significantly Improved Supporting Activities		New or Significantly Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
	f	%	f	%	f	%	f	%	f	%	f	%
Location	33	36	34	37	30	33	50	54	32	35	31	34
Aklan	6	7	4	4	4	4	6	7	6	7	5	5
Antique	6	7	5	5	5	5	5	5	3	3	5	5
Capiz	2	2	4	4	4	4	5	5	3	3	4	4
Guimaras	5	5	3	3	2	2	9	10	4	4	4	4
Iloilo	7	8	11	12	8	9	13	14	6	7	8	9
Negros Occ.	7	8	7	8	7	8	12	13	10	11	5	5
$X^2(25)=2.575$, $p=.765$												

MSME Characteristics	Innovation Management Marketing Innovation													
	Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Location	41	45	34	37	47	51	46	50	48	52	33	36	53	58
Aklan	6	7	4	4	7	8	5	5	6	7	5	5	8	9
Antique	6	7	6	7	6	7	6	7	7	8	5	5	6	7
Capiz	7	8	5	5	6	7	7	8	6	7	4	4	7	8
Guimaras	7	8	5	5	9	10	10	11	9	10	6	7	14	15
Iloilo	7	8	6	7	8	9	11	12	9	10	6	7	11	12
Negros Occ.	8	9	8	9	11	12	7	8	11	12	7	8	7	8
$X^2(30)=9.963$, $p=.076$														

Table 8

Differences in Innovation Management of MSMEs by Industry Classification

MSME Characteristics	Innovation Management: Product Innovation: New or Significantly Improved Goods		Product Innovation: New or Significantly Improved Services		Process Innovation: New or Significantly Improved Manufacturing Methods		Process Innovation: New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
Industry Classification	48	52	36	39	43	47	36	39	33	36
Food Proc.	35	38	24	26	30	33	25	27	24	26
Other Industries	13	14	12	13	13	14	11	12	9	10
$X^2(1)=11.452$, $p=.406$					$X^2(2)=9.083$, $p=.614$					

MSME Characteristics	Organizational Innovation: New or Significantly Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
	f	%	f	%	f	%	f	%	f	%
Industry Classification	34	37	31	34	50	54	33	36	32	35
Food Proc.	23	25	25	27	33	36	26	28	21	23
Other Industries	11	12	6	7	17	18	7	8	11	12
$X^2(5)=17.399$, $p=.097$										

MSME Characteristics	Innovation Management: Marketing Innovation: Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Industry Classification	41	45	34	37	47	51	46	50	48	52	33	36	53	58
Food Proc.	6	7	4	4	7	8	5	5	6	7	5	5	8	9
Other Industries	6	7	6	7	6	7	6	7	7	8	5	5	6	7
$X^2(6)=12.216$, $p=.348$														

Table 9

Differences in Innovation Management of MSMEs by Years in Operation

MSME Characteristics	Innovation Management: Product Innovation: New or Significantly Improved Goods		Product Innovation: New or Significantly Improved Services		Process Innovation: New or Significantly Improved Manufacturing Methods		Process Innovation: New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
Years in Operation	48	52	36	39	43	47	36	39	33	36
Startup	17	18	11	12	16	17	11	12	11	12
Growth	13	14	13	14	12	13	14	15	14	15
Maturity	10	11	8	9	10	11	8	9	6	7
Renewal/Decline	8	9	4	4	5	5	3	3	2	2
$X^2(3)=.320$, $p=.956$					$X^2(6)=2.332$, $p=.506$					

MSME Characteristics	Organizational Innovation: New or Significant Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
	f	%	f	%	f	%	f	%	f	%
Years in Operation	34	37	31	34	50	54	33	36	32	35
Startup	14	15	9	10	17	18	8	9	12	13
Growth	13	14	13	14	14	15	15	16	8	9
Maturity	4	4	5	5	10	11	6	7	8	9
Renewal/ Decline	3	3	4	4	9	10	4	4	4	4
$X^2(12)=3.223$, $p=.358$										

MSME Characteristics	Innovation Management: Marketing Innovation: Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Years in Op.	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Startup	16	17	13	14	19	21	17	18	17	18	12	13	19	21
Growth	14	15	13	14	14	15	16	17	15	16	8	9	21	23
Maturity	8	9	5	5	8	9	8	9	9	10	7	8	9	10
Renewal/Decline	3	3	3	3	6	7	5	5	7	8	6	7	4	4
$X^2(18)=2.835$, $p=.418$														

Table 10
Differences in Innovation Management of MSMEs by Type of Ownership

MSME Characteristics	Innovation Management: Product Innovation: New or Significantly Improved Goods		Product Innovation: New or Significantly Improved Services		Process Innovation: New or Significantly Improved Manufacturing Methods		Process Innovation: New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
Type of Ownership	48	52	36	39	43	47	36	39	33	36
Single Prop.	36	39	25	27	34	37	29	32	23	25
Partnership	1	1	1	1	0	0	0	0	0	0
Corporation	11	12	10	11	9	10	7	8	10	11
$X^2(2)=2.776$, $p=.428$					$X^2(4)=3.583$, $p=.310$					

MSME Characteristics	Organizational Innovation: New or Significantly Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
	f	%	f	%	f	%	f	%	f	%
Type of Ownership	34	37	31	34	50	54	33	36	32	35
Single Prop.	25	27	22	24	37	40	21	23	22	24
Partnership	1	1	0	0	2	2	1	1	1	1
Corporation	8	9	9	10	11	12	11	12	9	10
$X^2(8)=4.133$, $p=.247$										

MSME Characteristics	Innovation Management: Marketing Innovation: Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Type of Ownership	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Single Prop.	32	35	26	28	37	40	35	38	37	40	26	28	45	49
Partnership	1	1	0	0	1	1	1	1	1	1	1	1	1	1
Corporation	8	9	8	9	9	10	10	11	11	12	6	7	7	8
$X^2(12)=2.835$, $p=.418$														

Table 11
Differences in Innovation Management of MSMEs by Geographic Market

MSME Characteristics	Innovation Management: Product Innovation: New or Significantly Improved Goods		Product Innovation: New or Significantly Improved Services		Process Innovation: New or Significantly Improved Manufacturing Methods		Process Innovation: New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
Geographic Market	48	52	36	39	43	47	36	39	33	36
Local	36	39	25	27	31	34	26	28	25	27
National	4	4	4	4	7	8	4	4	4	4
Local, Nat'l & Other Countries	8	9	7	8	5	5	6	7	4	4
$X^2(4)=8.587$, $p=.072$					$X^2(4)=2.562$, $p=.633$					

MSME Characteristics	Organizational Innovation: New or Significantly Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
	f	%	f	%	f	%	f	%	f	%
Geographic Market	34	37	31	34	50	54	33	36	32	35
Local	24	26	22	24	34	37	23	25	22	24
National	3	3	3	3	8	9	4	4	3	3
Local, Nat'l & Other Countries	7	8	6	7	8	9	6	7	7	8
$X^2(8)=6.079$, $p=.193$										

MSME Characteristics	Innovation Management: Marketing Innovation: Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Geographic Market	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Local	27	29	25	27	31	34	31	34	32	35	21	23	39	42
National	6	7	3	3	8	9	7	8	8	9	5	5	7	8
Local, Nat'l & Other Countries	8	9	6	7	8	9	8	9	9	10	7	8	7	8
$X^2(18)=5.151$, $p=.272$														

Table 12
Differences in Innovation Management of MSMEs by Number of Employees

MSME Characteristics	Innovation Management: Product Innovation — New or Significantly Improved Goods		Product Innovation — New or Significantly Improved Services		Innovation Management — New or Significantly Improved Manufacturing Methods		Process Innovation — New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
No. of Employees	48	52	36	39	43	47	36	39	33	36
1 to 9	36	39	25	27	31	34	26	28	25	27
10 & above	4	4	4	4	7	8	4	4	4	4
$X^2(1)=6.849$, $p=.009$					$X^2(2)=3.372$, $p=.066$					

MSME Characteristics	Organizational Innovation — New or Significantly Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
	f	%	f	%	f	%	f	%	f	%
No. of Employees	34	37	31	34	50	54	33	36	32	35
1 to 9	24	26	22	24	34	37	23	25	22	24
10 & above	3	3	3	3	8	9	4	4	3	3
$X^2(4)=4.370$, $p=.037$										

MSME Characteristics	Marketing Innovation — Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
No. of Employees	41	45	34	37	47	51	46	50	49	53	33	36	53	58
1 to 9	27	29	25	27	31	34	31	34	32	35	21	23	39	42
10 & above	6	7	3	3	8	9	7	8	8	9	5	5	7	8
$X^2(6)=.000$, $p=1.000$														

Table 13
Differences in Innovation Management of MSMEs by Size

MSME Characteristics	Innovation Management: Product Innovation — New or Significantly Improved Goods		Product Innovation — New or Significantly Improved Services		Innovation Management — New or Significantly Improved Manufacturing Methods		Process Innovation — New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
Size	48	52	36	39	43	47	36	39	33	36
Micro	21	23	11	12	18	20	16	17	12	13
Small	27	29	25	27	25	27	20	22	21	23
$X^2(1)=6.849$, $p=.009$					$X^2(2)=3.372$, $p=.066$					

MSME Characteristics	Organizational Innovation — New or Significantly Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
	f	%	f	%	f	%	f	%	f	%
Size	34	37	31	34	50	54	32	35	32	35
Micro	15	16	14	15	23	25	10	11	14	15
Small	19	21	17	18	27	29	23	25	18	20
$X^2(4)=4.370$, $p=.037$										

MSME Characteristics	Marketing Innovation — Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Size	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Micro	18	20	14	15	21	23	22	24	24	26	17	18	29	32
Small	23	25	20	22	26	28	24	26	25	27	16	17	24	26
$X^2(6)=.000$, $p=1.000$														

Tables 14 to 17 illustrate the differences among the product, process, organizational, and marketing innovations when participants were categorized in terms of owner's age, sex, educational attainment, and length of business experience. The results showed that all characteristics of the owner do not affect product, process, organizational, and marketing innovations.

Table 14
Differences in Innovation Management of MSMEs by Age

Owner Characteristics	Innovation Management: Product Innovation: New or Significantly Improved Goods		Product Innovation: New or Significantly Improved Services		Innovation Management: New or Significantly Improved Manufacturing Methods		Process Innovation: New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
Age	48	52	36	39	43	47	36	39	33	36
44 yrs old & below	15	16	12	13	15	16	13	14	11	12
45 to 54 yrs old	11	12	8	9	11	12	10	11	11	12
55 to 64 yrs old	12	13	10	11	11	12	6	7	5	5
65 yrs old & above	10	11	6	7	6	7	7	8	6	7
$X^2(3)=3.142$, $p=.534$					$X^2(6)=5.135$, $p=.274$					

Owner Characteristics	Organizational Innovation: New or Significantly Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
	f	%	f	%	f	%	f	%	f	%
Age	34	37	31	34	50	54	33	36	32	35
44 yrs old & below	11	12	9	10	13	14	8	9	8	9
45 to 54 yrs old	9	10	8	9	12	13	9	10	7	8
55 to 64 yrs old	10	11	9	10	18	20	12	13	13	14
65 yrs old & above	4	4	5	5	7	8	4	4	4	4
$X^2(12)=4.911$, $p=.297$										

Owner Characteristics	Marketing Innovation: Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Age	41	45	34	37	47	51	46	50	49	53	33	36	53	58
44 yrs old & below	13	14	10	11	17	18	14	15	13	14	9	10	15	16
45 to 54 yrs old	12	13	11	12	17	18	12	13	13	14	6	7	15	16
55 to 64 yrs old	10	11	7	8	9	10	14	15	17	18	12	13	17	18
65 yrs old & above	6	7	6	7	5	5	6	7	6	7	6	7	6	7
$X^2(18)=8.223$, $p=.084$														

Table 15
Differences in Innovation Management of MSMEs by Owner's Sex

Owner Characteristics	Innovation Management: Product Innovation: New or Significantly Improved Goods		Product Innovation: New or Significantly Improved Services		Innovation Management: New or Significantly Improved Manufacturing Methods		Process Innovation: New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
Sex	48	52	36	39	43	47	36	39	33	36
Male	24	26	20	22	21	23	17	18	19	21
Female	24	26	16	17	22	24	19	21	14	15
$X^2(1)=.104$, $p=.747$					$X^2(2)=1.374$, $p=.241$					

MSME Characteristics	Organizational Innovation: New or Significantly Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
	f	%	f	%	f	%	f	%	f	%
Sex	34	37	31	34	50	54	33	36	32	35
Male	17	18	17	18	25	27	17	18	17	18
Female	17	18	14	15	25	27	16	17	15	16
$X^2(4)=.755$, $p=.385$										

MSME Characteristics	Marketing Innovation: Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Sex	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Male	21	23	18	20	19	21	20	22	25	27	17	18	26	28
Female	20	22	16	17	28	30	26	28	24	26	16	17	27	29
$X^2(6)=.044$, $p=.834$														

Table 16
Differences in Innovation Management of MSMEs by Educational Attainment of Owners

Owner Characteristics	Innovation Management: Product Innovation: New or Significantly Improved Goods		Product Innovation: New or Significantly Improved Services		Process Innovation: New or Significantly Improved Manufacturing Methods		Process Innovation: New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
Highest Educational Attainment	48	52	36	39	43	47	36	39	33	36
HS & Post Sec. Grad.	3	3	2	2	3	3	2	2	2	2
College Undergrad.	6	7	4	4	6	7	4	4	3	3
College Grad.	34	37	24	26	29	32	27	29	23	25
Post Bacc.	5	5	6	7	5	5	3	3	5	5

$X^2(3)=.076$, $p=.962$ $X^2(6)=1.835$, $p=.400$

Owner Characteristics	Organizational Innovation: New or Significantly Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
	f	%	f	%	f	%	f	%	f	%
Highest Educational Attainment	34	37	31	34	50	54	33	36	32	35
HS & Post Sec. Grad.	1	1	1	1	1	1	0	0	1	1
College Undergrad.	2	2	1	1	5	5	2	2	4	4
College Grad.	27	29	24	26	39	42	27	29	24	26
Post Bacc.	4	4	5	5	5	5	4	4	3	3

$X^2(12)=5.184$, $p=.075$

Owner Characteristics	Innovation Management: Marketing Innovation: Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Highest Educational Attainment	41	45	34	37	47	51	46	50	49	53	33	36	53	58
HS & Post Sec. Grad.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
College Undergrad.	5	5	3	3	6	7	7	8	6	7	3	3	5	5
College Grad.	28	30	25	27	34	37	32	35	36	39	25	27	40	43
Post Bacc.	6	7	4	4	5	5	5	5	5	5	3	3	6	7

$X^2(18)=1.810$, $p=.404$

Table 17
Differences in Innovation Management of MSMEs by Length of Business Experience

Owner Characteristics	Innovation Management: Product Innovation: New or Significantly Improved Goods		Product Innovation: New or Significantly Improved Services		Process Innovation: New or Significantly Improved Manufacturing Methods		Process Innovation: New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
Length of Bus. Experience	48	52	36	39	43	47	36	39	33	36
5 yrs & below	4	4	2	2	3	3	3	3	3	3
6 to 10 yrs	10	11	8	9	10	11	6	7	4	4
11 yrs & more	34	37	26	28	30	33	27	29	26	28

$X^2(3)=.076$, $p=.962$ $X^2(6)=1.835$, $p=.400$

Owner Characteristics	Organizational Innovation: New or Significantly Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
	f	%	f	%	f	%	f	%	f	%
Length of Bus. Experience	34	37	31	34	50	54	33	36	32	35
5 yrs & below	5	5	2	2	4	4	0	0	2	2
6 to 10 yrs	8	9	5	5	11	12	5	5	7	8
11 yrs & more	21	23	24	26	35	38	28	30	23	25

$X^2(12)=5.184$, $p=.075$

Owner Characteristics	Innovation Management: Marketing Innovation: Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Length of Business Experience	41	45	34	37	47	51	46	50	49	53	33	36	53	58
5 yrs & below	4	4	4	4	4	4	3	3	4	4	2	2	4	4
6 to 10 yrs	11	12	7	8	15	16	13	14	14	15	8	9	17	18
11 yrs & more	26	28	23	25	28	30	30	33	31	34	23	25	32	35

$X^2(18)=1.810$, $p=.404$

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Tables 18 to 24 show the differences in MSME refund performance of the MSMEs when categorized according to location, industry classification, years in operation, type of ownership, geographic market, number of employees, and size. The results showed that all firm characteristics do not affect refund performance.

Table 18

Differences in MSME Refund Performance by Location

MSME Characteristics	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f	%	f	%
Location	87	95	2	2	0	0	92	100
Aklan	12	13	0	0	0	0	12	13
Antique	12	13	0	0	2	2	12	13
Capiz	6	7	0	0	0	0	8	9
Guimaras	18	20	0	0	0	0	18	20
Iloilo	22	24	1	1	1	1	23	25
Negros Occ.	17	18	1	1	3	3	19	21

$X^2(10)=16.878$, $p=.077$

Table 19

Differences in MSME Refund Performance by Industry Classification

MSME Characteristics	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f	%	f	%
Industry Classification	92	100	2	2	3	3	92	100
Food Processing	61	66	1	1	1	1	61	66
Other Industries	31	34	1	1	2	2	31	34

$X^2(2)=33.932$, $p=.050$

Table 20

Differences in MSME Refund Performance by Years in Operation

MSME Characteristics	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f	%	f	%
Years in Operation	87	95	2	2	3	3	92	100
Startup	29	32	0	0	2	2	31	34
Growth	30	33	1	1	0	0	31	34
Maturity	16	17	0	0	1	1	17	18
Renewal/Decline	12	13	1	1	0	0	13	14

$X^2(6)=5.810$, $p=.445$

Table 21

Differences in MSME Refund Performance by Type of Ownership

MSME Characteristics	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f	%	f	%
Type of Ownership	87	95	2	2	3	3	92	100
Single Prop.	67	73	2	2	2	2	71	77
Partnership	2	2	0	0	1	1	3	3
Corporation	18	20	0	0	0	0	18	20

$X^2(4)=5.810$, $p=.445$

Table 22

Differences in MSME Refund Performance by Geographic Market

MSME Characteristics	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f	%	f	%
Geographic Market	87	95	2	2	3	3	92	100
Local	62	67	2	2	3	3	67	73
National	14	15	0	0	0	0	14	15
Local, Nat'l & Other Countries	11	12	0	0	0	0	11	12

$X^2(4)=1.973$, $p=.982$

Table 23
Differences in MSME Refund Performance by Number of Employees

MSME Characteristics	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f	%	f	%
Number of Employees	87	95	2	2	3	3	92	100
1 to 9	45	49	2	2	1	1	48	52
10 and above	42	46	0	0	2	2	44	48

$X^2(8)=2.267$, $p=.322$

Table 24
Differences in MSME Refund Performance by Size

MSME Characteristics	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f	%	f	%
Size	87	95	2	2	3	3	92	100
Micro	45	49	2	2	1	1	48	52
Small	42	46	0	0	2	2	44	48

$X^2(8)=2.267$, $p=.322$

Table 25 to 28 show the differences in the refund performance of the MSMEs when grouped according to the owner's age, sex, highest educational attainment, and length of business experience. The results revealed that the owner's long business experience affects the high refund performance of the MSME. Other characteristics of the owner do not influence refund performance.

Table 25
Differences in Refund Performance by Owner's Age

Owners Characteristics	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f	%	f	%
Age	87	95	2	2	3	3	92	100
44 yrs old & below	22	24	1	1	0	0	23	25
45 to 54 yrs old	23	25	0	0	2	2	25	27
55 to 64 yrs old	25	27	1	1	1	1	27	29
65 yrs old & above	17	18	0	0	0	0	17	18

$X^2(8)=.507$, $p=.776$

Table 26
Differences in Refund Performance by Owner's Sex

Owners Characteristics	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f	%	f	%
Sex	87	95	2	2	3	3	92	100
Male	40	43	1	1	2	2	43	47
Female	47	51	1	1	1	1	49	53

$X^2(8)=.507$, $p=.776$

Table 27
Differences in Refund Performance by Owner's Highest Educational Attainment

Owners Characteristics	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%			f	%
Highest Educational Attainment	87	95	2	2	3	3	92	100
HS & Post Sec. Grad.	3	3	0	0	0	0	3	3
College Undergrad.	12	13	0	0	0	0	12	13
College Grad.	63	68	1	1	3	3	67	73
Post Bacc.	9	10	1	1	0	0	10	11

$X^2(8)=4.477$, $p=.812$

Table 28
Differences in Refund Performance by Owner's Length of Business Experience

Owners Characteristics	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%			f	%
Length of Bus. Exp.	87	95	2	2	3	3	92	100
5 yrs & below	5	5	0	0	2	2	7	8
6 to 10 yrs	23	25	0	0	0	0	23	25
11 yrs & more	59	64	2	2	1	1	62	67

$X^2(8)=16.457$, $p=.002$

Tables 29 to 32 show the relationship between refund performance and product, process, organizational, and marketing innovations. The results revealed, no significant relationships exist.

The result of this study supports the findings of Oliveira et al. (2018), Hai et al. (2022), Gimenez-Fernandez, et al. (2020), Yang & Aldrich, (2017), Zhu et al. (2019), Lee, (2021), all of which state that innovation does not always result to improved performance. Implementing any type of innovation involves risks. In the Philippine setting, the results of this study do not support the findings of Llanto and Prado (2015) that product and process innovations lead to an increase in sales and profits and improve labor productivity. The result does not confirm the standpoint of Schumpeter's Theory of Innovation that performance is influenced by the innovations of the firm.

Table 29
Relationship between Refund Performance and Product Innovation

Innovation Management	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f	%	f	%
Product Innovation								
New or Significantly Improved Goods	45	49	1	1	2	2	48	52
New or Significantly Improved Services	35	38	0	0	1	1	36	39

$X^2(2)=.141$, $p=.932$

Table 30
Relationship between Refund Performance and Process Innovation

Innovation Management	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f	%	f	%
Process Innovation								
New or Significantly Improved Manufacturing Methods	43	47	0	0	0	0	43	47
New or Significantly Improved Logistics, Delivery, or Distribution Methods	34	37	1	1	1	1	36	39
New or Significantly Improved Supporting Activities	32	35	0	0	1	1	33	36

$X^2(8)=1.631$, $p=.442$

Table 31
Relationship between Refund Performance and Organizational Innovation

Innovation Management	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f	%	f	%
Organizational Innovation								
New or Significantly Improved Knowledge Management Systems	32	35	0	0	2	2	34	37
New Management Systems	30	33	0	0	1	1	31	34
Significant Changes to the Organization of Work	46	50	1	1	3	3	50	54
Significant Change to the Management Structure	32	35	0	0	1	1	33	36
New or Significant Changes in its Relations with Other Establishments or Public Institutions	31	34	0	0	1	1	32	35

$X^2(8)=.902$, $p=.637$

Table 32
Relationship between Refund Performance and Marketing Innovation

Innovation Management	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f	%	f	%
Marketing Innovation								
Significant Changes to the Design	38	41	0	0	3	3	41	45
Significant Changes to the Packaging	32	35	0	0	2	2	34	37
Target New Customer Groups	43	47	1	1	3	3	47	51
New Media or Techniques for Promotion	43	47	1	1	2	2	46	50
New Sales Channels	45	49	1	1	3	3	49	53
New Concepts for Product Presentation	31	34	1	1	1	1	33	36
New Pricing Methods	49	53	1	1	3	3	53	58

$X^2(14)=3.103$, $p=.212$

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the specific objectives and the major findings of the study, the conclusions are discussed below.

Iloilo is a conducive place to engage in business given that it has the lowest consumer price index, slowest inflation rate, and highest purchasing power. The province is not readily affected by the increase in costs of products and services and consumers can purchase more goods and services from their income. Food is a basic need, thus, demand is relatively stable even during crises. The food processing industry is a lucrative and viable industry to venture into. Firms are relatively new. Thus, they are either testing their products in the market and sales are low or in the take-off where demand begins to accelerate; the market is expanding and sales are increasing.

Registering a business as a single proprietorship is the easiest in the Philippines. The registration process is relatively straightforward and requires a minimum amount of capital. It has also minimal regulations and compliance requirements from government agencies and is the easiest to run since no necessary formalities or regulations are required unlike corporations and partnerships, which are required to have board meetings, board elections, and share capital, among others.

A strong local customer base is important to sustain the business among MSMEs, especially during crises. Even with the archipelagic nature of regions, MSMEs can easily transport their products given the availability of roll-on, and roll-off (RORO) heavy freight shipping. It allows MSMEs to ship large quantities of goods in a single delivery to any part of the region. There are also numerous available third-party deliveries or also known as 3PLs that enables businesses to outsource operational logistics from warehousing down to delivery which offers easy-to-use, free application, realistic and affordable prices.

The number of workers hired by the MSMEs depends on their existing capacity. Since the majority are relatively new and very small, they also need a small number of workers. Owners and family members are often the ones that are hired to perform multiple tasks as a cost-saving measure to minimize labor costs and thus, increase profit.

They remain to be micro-enterprises considering the numerous challenges they face such as limited access to finance, high cost of doing business, limited access to markets, low productivity and efficiency, and vulnerability to natural hazards. The situation is aggravated by the occurrence of the COVID-19 pandemic where the MSMEs experienced reduced operating hours, production volume, and loss of employees. All these factors limit the MSMEs' transition from micro to small and small to large enterprises.

At the age of 55 to 64 years old, the owners have accumulated adequate knowledge, skills, and business experience to run the business. They have also the necessary funds that could be invested to expand the business. Furthermore, the business is often registered under the name of the wives who are left at home and are tasked to manage the business while the husband works on a regular job. This is to initially have a steady income from the husband's regular job while the business is just starting thus, minimizing the risk for the family.

Women are also more interested in school so they are more likely to graduate from college. Given their education, they are very capable to manage a business. Lastly, women have the patience to manage the business over a long period of time until such time that they turn over the management to their trained successor.

Regardless of the firm and owner's profile, their innovation management remains the same. MSMEs are producing better and more usable products demanded by the market to stay competitive and increase profit. There is a continual development of goods or products given the changing customer preference and because of the stiff competition from local and imported goods. E-commerce has intensified competition since imported goods can be readily bought and delivered to the customer's doorstep. The company introduces new manufacturing methods to accommodate the

production of new products and to increase productivity. The production of new products would significantly affect their production line since new steps may be added or removed.

Moreover, MSMEs are implementing changes to the organization of work in the company such as improving employee decision-making and responsibility to ensure a smooth flow of operation. Problems may arise at any time that should be addressed promptly to prevent delays and unnecessary waiting periods which can affect customer satisfaction and sales. MSMEs are introducing new pricing methods to market goods or services because customers are price-sensitive. Since most MSMEs are engaged in food processing which has numerous competitors, customers tend to be more price sensitive. Changes in the price of goods or services would affect customers' buying decisions thus, MSMEs take precautions in adjusting their prices. They have also adjusted the prices given the increase in the prices of raw materials which can be attributed to inflation.

Notwithstanding the firm and owner characteristics, their refund performance remains comparable so that they can avail again of financial assistance from different institutions.

Location plays a critical role to fuel product innovations of business enterprises given that a strategic location facilitates easy access to sources and suppliers of materials, transportation, labor, utilities, and customers, among others. They can also readily be tapped by institutions that provide assistance with product innovations.

The number of employees and the size of the firm also affect its capacity to implement product innovation since the creation of new products requires several workers and investment from the company. Executing product innovations would require buying raw materials that may not be available locally so the company may need to import as well as acquire new equipment. These additional costs can only be afforded by huge firms. Firms that are huge enough are more likely to take risks in producing new products to become more competitive in the market. In other words, big firms have more available funds than small firms that can be utilized to produce new products despite the risks involved.

Moreover, firms that employ many employees are active in implementing organizational innovations because this is critical given their relatively complicated operations. Numerous problems arise at any time and the persons who make the decisions should be identified to prevent conflicts, delays, and unnecessary waiting periods. These factors if taken into account can assist firms to minimize the risk of failed innovations.

Other characteristics of the owner and the firm may have come into play not covered in the study that may have an effect on product, process, organizational, and marketing innovations.

Notwithstanding the firm characteristics such as location, industry classification, years in operation, type of ownership, geographic market, and size, their refund performance remains comparable. Other characteristics of the firm may come into play not covered in the study that may have an effect on refund performance.

The owners of MSMEs that have long business experience are more committed to refunding or repaying their financial obligations because they want to maintain their creditworthiness. They do not want to taint their long years of credit history, this way, they can avail again of financial assistance. Debt-to-income ratio decreases when firms pay their debts as it becomes due thus, improves the owner's capacity to pay. As a result, many agencies would like to engage in business with them.

Regarding the relationship between innovation management and refund performance, it is concluded that other factors in innovation management may have come into play that would have a relationship with refund performance that are not covered in the study.

Recommendations

The recommendations based on the major findings and conclusions are discussed in the succeeding paragraphs and are grouped into three namely, for the MSMEs and owners, for DOST, and for DTI, LGUs, academe, and other agencies involved in MSME development.

For the MSMEs and owners, it is suggested that they locate their businesses in areas that nurture their development. They need to consider engaging or expanding in high-growth sectors and industries to sustain and expand their businesses even during a crisis so that they can overcome the startup stage and move toward the growth phase. Moreover, MSMEs need to ensure that their businesses are operating legally by registering them with the concerned agencies. They need to build a strong local market first before they expand to other markets which is critical in sustaining their operation even during times of crisis. They need to balance the number of their workers to the scale of their existing operations.

MSMEs should likewise, continually produce new products; implement new manufacturing methods; improve employee decision-making and responsibility; and enhance pricing methods.

Moreover, owners of MSMEs should capacitate themselves on product, process, and organizational innovations so that they can improve their businesses. They should make good in repaying the assistance provided to them to maintain a good creditworthiness rating. This way, many agencies would want to engage in business with them.

Most importantly, MSMEs and entrepreneurs that are actively engaged in product innovations need to locate their businesses in strategic areas that aggressively promote product innovation. Likewise, MSMEs need to have 10 or more employees and are classified as small to medium when they engage in product innovations. This way, they are better equipped to introduce product innovation and minimize the risks of failed innovations.

For the DOST, to continue providing innovative solutions to the bottlenecks experienced by MSMEs as well as provide the owners with training and capacity-building on innovation so that they can continually improve their businesses. In promoting and providing assistance to MSMEs, their location, number of employees, and size should be considered so that they can fully benefit from the support. For instance, the Department can target small and medium enterprises in relatively developed areas for product improvement and/or development because they are more equipped. Then, refer to DTI and other agencies the micro-enterprises for marketing and organizational assistance.

It is also recommended that it continues to provide financial support for innovation to MSMEs. The length of business experience may be included in the criteria for evaluating proposed projects to be provided with innovation funds. The agency should monitor the innovation practices among MSMEs and analyze the factors affecting them. The regular conduct of a survey on innovation is vital to better understand, manage, and mainstream innovation. Lastly, consider implementing the research-based enhanced version of the SETUP.

For the DTI, LGUs, academe, and other agencies involved in MSME development, there is a need to have a strong collaboration to better assist the MSMEs in different aspects of innovation. For instance, DTI collaborates with the academe which has experts in marketing and organizing. Likewise, financial support to MSMEs needs to be continued. Consider serving more MSMEs with owners that are more mature, college graduates, and have long years of business experience. Also, to ensure the participation of both men and women since Gender and Development (GAD) is now mainstreamed in implementing projects in the country. LGUs may create enabling policies to improve the business environment and promote innovative projects thus, creating a more favorable business environment for MSMEs to grow.

Innovation is rather multifaceted that participation of all concerned agencies is critical. The importance of adopting a whole-of-government approach in assisting MSMEs cannot be overemphasized. The MSMEs should be provided with a complete package of assistance so they can transition from micro to small, to medium, and eventually to large enterprises and become strong drivers of the country's economic growth.

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