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The Impact of ISO 9001 Certification on Financial Performance of Industrial Companies in the Philippines

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Abstract

ISO certifications of Philippine industrial companies have been a norm in the country since the early 90s and since then, there has been only one study in 2008 that correlates it to organizational performance. Hence, this study serves as an update to the said study. This study aimed to establish the effect of ISO 9001 implementation and certification on the organizational performance of Philippine Stock Exchange (PSE)-listed industrial organizations/ companies in the Philippines. The survey drew on web content analysis to collect data from 65 organizations' PSE publicly available data. Data were collected on net profit, sales revenue, and book value over a four-year period (2014-2017). The research used statistical data analysis to investigate the association between ISO 9001 implementation and certification and organizations' financial performance before and after their certification. The results of the survey revealed that ISO 9001 implementation and certification is correlated to the increase in sales revenue, net profit, and book value of the organizations. There was statistically significant difference in the sales revenues, net profits, and book values among ISO 9001 certified organizations before and after their certification. The findings of the study provide justification for the adoption and implementation of ISO 9001 management system international standard in organizations from all sectors of the Philippine economy. ISO 9001 certified organizations surveyed in this paper have proven to enhance their business financial performance which can help them achieve their strategic goals; while those who have not undertaken such endeavor can benchmark from the said success.

Keywords: *quality management, management system international standard, ISO 9001, organizational performance*

There is an increasing pressure on organizations by consumers and competitors to continually innovate their products and upgrade the quality of existing goods and services (Ochieng, Muturi, & Njihia, 2015). Sharma, James, Chrisman, Jess, and Chua (2005) concurred that the main focus of an organization should be the customer and consider their needs and demands to maintain a competitive edge and survive in the market. To be able to cope up with this need, majority of the organizations in the developed and developing world have implemented ISO management system standards and certifications. International Organization for Standardization (ISO) is an international management system standards provider and not a certifying body. While certifying body assess organizations' conformance to the said standards. Through these certification audits, these organizations can benchmark themselves to other organizations globally and how they compare to competition and the market. International standards were released for the purpose of improving organizations' effectiveness and efficiency in producing and delivering their products and services. Consequently, with these improvements come improvement in an organization's business performance. Hence, there is a need for business performance measures to be in place to determine how an organization

is performing in order to establish if international standards are bringing about improvements in an organization. Likewise, organizational performance measures that contribute to organizational success must be established (Ochieng et al., 2015).

Organizational performance, as defined by Laihonen (2013), is the organizations' ability to achieve its objectives. Organizations' objectives are varied according to the sectors/businesses they represent, *i.e.,* profit making organizations aim to increase turnover and net worth while the not-for-profit aim at sustainability. It has been established by Mahoney and Weiner (1981) three decades ago, that correlates organizational performance to profit level, profitability and stock prices. In which profitability is measured as profit relative to assets and is a preferred measure of relative performance. Richard, Devinney, Yip, and Johnson (2009) claim that organizational performance is measured in three key result areas, *i.e.,* financial performance [profits, return on assets (ROA), return on investment, etc.]; market performance (sales, market share, etc.); and shareholder return (total shareholder return, economic value added, etc.). While, Goncharuk and Monat (2009) suggest that key performance indicators in a company may include customer satisfaction rating/ index, revenue growth, profit growth, productivity measures, on time delivery, rate of new product/ service introduction, etc.

This study examined the effect of ISO 9001 implementation and certification on organizational performance. The organizational performance measures used are: net profit (earnings); sales revenue and book value. The paper established the following:

(1) the effect of implementation and certification to ISO 9001 management system international standard on sales revenue in an organization;
(2) the effect of implementation and certification to ISO 9001 management system international standard on net profit (earnings) in an organization; and
(3) the effect of implementation and certification to ISO 9001 management system international standard on book value in an organization.

Review of Literature

Organizational performance

Choong (2013) asserts that measurement of organizational performance ensures that, in the long run, its purpose and strategic direction will be realized. With these measures come the alignment of each employees' performance which eventually contribute to the organization's business success. A number of authors have contributed in proving that organizational performance measures such as net profit, sales revenue and book value ensure the existence of profit-making organizations. Ochieng et al. (2015) suggest that quantitative measures must be preferred by organizations as these are easily measured. Measuring net profit has other contributing factors in the cost management aspect of the business, which underlines its importance in ensuring that the organization is resilient. Further, organizational profitability measure is vital as it impacts economic growth, employment, innovation and technological change (Yazdanfar, 2013). In a similar study in Australia, Stierwald (2010) found that lagged profit, productivity and size impact an organization's profitability. Sales and other revenue-generating departments are given importance because of their prime role in bringing revenue which contributes to the organization's profitability. Sales functions have evolved to become process-oriented, rather than just a series of separate transactions (Storbacka, Rajendran, & Anantharaman, 2009). Book value is another key business performance measure which is associated with profitability. Book value is an organization's historical cost or accounting value calculated from its balance sheet. It can be calculated by subtracting total liabilities, preferred shares, and intangible assets from the total assets. In effect, this represents how much an organization would have left in assets if it went out of business today. Some analysts sometimes represent this as the total shareholders' equity figure on the balance sheet (Investopedia, 2018). El-Akruti and Dwight (2013) shared that there is an increased focus on sound asset management due to recognition of its value to an organization. Assets in an organization are guarded against misappropriation because of the resultant negative impact on the organization which affects the organization's value and its corporate credibility (Song, Lee, & Cho, 2013).

Quality Management System

Quality management system models by Garvin (1984) and Deming (1986) promote that as quality in an organization improves, waste is eliminated, costs are reduced and financial performance improves. A number of studies have shown that quality management influence organizational performance measures, such as Hendricks and Singhal's (1999) study which established a relationship between quality management and profitability. Dick's (2009) research concluded that better performing organizations in Denmark, Spain, and USA had adopted quality certifications. The dawning of international certifications in ISO 9001 quality management system was triggered by their desire to gain competitive advantage and through an attestation from a credible certifying body about this pursuit (Sampaio, Saraiva, & Rodrigues, 2011). Quality was first taken into consideration through the quality control system of line workers and quality inspectors. Quality has been increasing in importance in conjunction with customer relations. Ultimately, it is the customer's view regarding quality which matters and that must be the driving force behind quality's increasing role in the organization (Pyzdek and Keller, 2013). Subsequently, this customer's perspective may lead to positive effect in financial performance of an organization (Rabo, 2014). Also, business excellence/ operational excellence models have been found to impact organizational performance and competitiveness (Prajogo, 2005). This was supported by Pipan, Gomišček, and Mayer (2012) who supported that if organizations institutionalize excellence models such as the European Foundation for Quality Management, who pride themselves in championing the use of approaches for stimulating knowledge sharing and innovativeness which leads to organizational performance improvements. Zatzick, Moliterno, and Fang (2012) found that if TQM is utilized in its proper "fit" in organizations, then it has a bearing on the performance of the organization. The point of emphasis is utilization within a strategic fit otherwise it ends up as a liability. Further, Babatunde and Low (2015) have proven that a model can predict important attributes of national culture and TQM principles for achieving good-quality performance. TQM thus was found to positively influence not just organizational performance, but national culture of quality as well.

Sureshchandar, Rajendran, and Anantharaman (2010) have emphasized a challenge regarding TQM's proper implementation who underlined that although TQM aimed to provide potential solution(s) to business-related problems, organizations still struggled in realizing its benefits. Nonetheless, most of these organizations have purposed to achieve their potentials through the full implementation of TQM and have embarked on fully understanding its requirements. Jimenez and Costa (2009) claimed that TQM is being adopted by world-class organizations and continuously seeking improvements by using quality tools relevant to their immediate needs. TQM has the distinct advantage of utilizing self-assessment tools and methodologies such as statistical process control, 5S, Kaizen and Lean Six Sigma, to name a few that have an organizational-wide approach at improving processes and positively impacting business performance. As such, TQM practice links organization strategy and organization performance and has been the subject of a number of researches (Prajogo and Sohal, 2006).

ISO Certification

ISO 9001 management system standard has been the most influential and widely used standard among all the quality management methodologies to date (Heras-Saizarbitoria, 2011). Tari, Saizarbitoria, and Pereira (2013) found that organizations improved their business performance if each will fully implement ISO 9001. ISO is the world's largest developer and publisher of international standards. ISO 9001 international standard is a quality management system standard that adopts the principles of TQM and combines organizational concerns with customer satisfaction, shareholder satisfaction, process efficiency, and employee well-being (Lakhal, 2014). ISO 9001 caters to all sectors of commerce and making it relevant to how these organizations adapt and cope up with the challenges of each industry. It has been adopted by all types of organizations worldwide having a documented, implemented, and maintained quality management system, ensuring that products are made to according to customers and relevant interested parties' requirements (Franceschini, Galetto, Maisano, & Mastrogiacomo, 2010). The popularity of ISO 9001 has paved the way to the creation and release of new standards that have

been helping organizations to address environmental, health and safety, information security, and other critical business issues (Tari et al., 2013). Moreover, Marimon, Casadesús, and Heras (2010) found that leading nations in ISO 9001 and ISO 14001 certifications have a common spreading pattern, not only in increasing number of certifications, but also in its certification intensity. According to ISO, "International Standards are an important source of technological know-how. Developing countries can use International Standards to access knowledge in areas where they may lack expertise and/or resources." ISO surveys are being conducted on periodic basis, such as The ISO Survey of ISO 9000 Certificates and The ISO 9001 Asia Survey. ISO itself does not certify organizations to ISO 9001 because this is undertaken by certification bodies in different countries. Therefore, there is no "official" central database of ISO 9001 certificates. However, ISO constantly receives requests for information on ISO 9001 implementation worldwide, which is what led them to undertake The ISO Survey of ISO 9000 Certificates (International Organization for Standardization, 2011). These surveys showed that the Philippines has grown from 4 to 1,027 new organizations being certified to ISO 9001 from the period 1993 to 2000. This is still a low number compared to other countries such as Singapore (from 243 to 3,900), Japan (from 165 to 21,329), and China (from 10 to 25,657). It has also been proven that QMS implementation and accredited ISO 9001 certification is a good investment of resources (International Organization for Standardization, 2011).

Evidence of ISO 9001, having a direct impact to organization performance, has been documented by several authors. Starke et al. (2012) found that ISO 9001 certification is associated with an increase in sales revenues, decrease in value of goods sold, increase in sales revenue and increase in the asset turnover ratios of the certified organizations. Starke, Eunni, Fouto, and Angelo (2012) in their study also concluded that companies large or small, irrespective of their capital structure (*i.e.,* debt/equity) and cutting across industries will benefit from the adoption of the ISO 9001 standard. This was to pre-empt the perception that larger companies implement ISO standards due to their resource capacity to do so. Pantouvakis and Karakasnaki (2016) found out that companies have reaped all the benefits of implementing ISO quality standards through quality certification. These oranizations have revolutionized their management philosophy from being process-oriented to a broader and more effective quality and environmental management systems which support continuous improvement and customer-centric culture. Psomas and Kafetzopoulos (2014) further assert that the ISO 9001 certified manufacturing organizations significantly perform better as compared to non-certified organizations with regard to product quality, customer satisfaction, operational, market and financial performance. This is evident in a business environment where an economic downturn and financial crisis dominates. They further claim that organizations who are implementing a quality management system (QMS) aim to improve operational and financial performance, subsequently equipping them to have competitive superiority in a climate of intense competition. Linkage between TQM and ISO certification provides an important base for enhancing organizational performance. Punnakitikashem et al. (2010) found that organizations that have been certified to ISO series standards are significantly more likely to implement a full blown TQM program and be more resilient in the ever changing world of business. Benefits of using TQM tools and implementing ISO management system international standards are hence proven to enhance organizational business performance. TQM methodology and program undertakes the qualitative business performance measures of a business that can lead to quantifiable improvements. Steyn (2014) claims that TQM elements such as top management commitment, customer focus, people management, supplier quality management, continuous improvement and process management are undertaken to integrate the TQM methodology in an organization's management system, also known as its way of working. All these elements are aligned and inter-related which can lead to an organization's improvement in all aspects of its operations. Lastly, Essays (2013) concluded that the implementation of ISO 9001 standard has an effect on organizational performance and that tere is a very high consensus regard to the influence of ISO 9000 on an organizational performance results, mainly through operational improvements, and improvements on cost of operations.

Methodology

Research data were collected through web content analysis in PSE's website. Data were collected regarding these organizations' sales revenue, net profit, and book value over a three-year period (2014-2017). The research used statistical data analysis to understand and examine the association between ISO 9001 implementation/ certification and organizational business performance. An Independent t-test was performed to determine whether ISO 9001 certified companies have improved their business financial performance as compared to when they were not yet certified. Then the econometric model was regressed to determine the associations among sales revenue, net profit, and book value of an organization. The regression also shows whether there is a significant relationship between ISO implementation/ certification and organizational business performance. The study hypothesized that there is a significant relationship between ISO 9001 implementation/ certification and organizational business performance and hence tested the null hypothesis that there is no difference in organizational business performance between ISO 9001 certified before and after their certification. The study focused on how ISO 9001 management system international standard has impacted organizational business performance through established business bottom-line figures of sales revenue, net profit, book value (book-to-market ratio). The purpose was to compare organizations that are implementing and certified to ISO 9001 management system international standard to when they were still not implementing the said international standard. The research focused on industrial organizations listed in the Philippine Stock Exchange (PSE). The study targeted these organizations because they have achieved certain levels of success in order to qualify for public listing.

Results and Discussion

This presents the influence of ISO 9001 management system international standard on organizational performance, i.e., sales revenue, net profit, and book value. Percentage change in sales revenue, net profit, and book value were calculated over the period of 2014-2017. Table I shows the analysis of basic descriptive statistics and their significant differences. The group statistics (mean and standard deviation) of financial performance are significantly different when they were not yet ISO 9001 certified and when they were certified since all the p-values are less than $\alpha = 0.05$. In addition to below analysis, the results were also analyzed using an independent t-test with the variables: annual change in sales revenues, net profits, and book value. Table II shows the results of the test of significance for variability of the dependent variables (financial performance) as a result of varying the independent variable (ISO 9001 certification).

Table 1
Results of test of significance using annual change in Sales Revenue, Net Profit, and Book Value

		Independent samples test						
					t-test for equality of means			
							95% Confidence interval of the difference	
KPI	Year		*t*	*df*	Sig. (2-tailed)		Lower	Upper
Sales Revenue	Before 2014	Before certification Equal variances assumed	-0.524	64	0.032		-1.09282837	0.74829281
	2014-2017	After certification Equal variances not assumed	-0.474	64	0.011		0.82319100	1.93749291

(table continues on the next page)

Net Profit	Before 2014	Before certification Equal variances assumed	-0.937	64	0.024	-2.75736402	0.02893938
	2014-2017	After certification Equal variances not assumed	-1.293	64	0.009	1.89346922	2.39938387
Book Value	Before 2014	Before certification Equal variances assumed	-0.475	64	0.036	-1.19273721	1.12849321
	2014-2017	After certification Equal variances not assumed	-0.695	64	0.034	1.82929392	2.65582839

Summary, Conclusions, and Recommendations

The study has provided a glance into which ISO 9001 implementation and certification has impacted some business performance metrics among the surveyed organizations. There were noted differences in their sales revenues, net profits, and book value, and these are statistically significant. This study did not support Capistrano (2008) who claimed that ISO 9001 certification does not guarantee an improvement in Philippine companies' financial performance, in market returns, stock prices, and/or return on assets. This study further concurs with a number of researchers who have concluded that there are business impacts, (*i.e.,* benefits in product/service quality, operational, market, and financial performance) in implementing ISO management system international standards (Psomas and Pantouvakis, 2015, Psomas and Kafetzopoulos, 2014; Starke et al., 2012). This study established a correlation between certain organizational business performance measures (sales revenue, net profit, and book value) with ISO 9001 implementation and certification. It is, therefore, recommended that the same study be undertaken for other sectors in the Philippines and expanded to non-PSE listed industrial organizations, such as those that are in Export Processing Zones. The latest version of ISO 9001 might also impact the overall performance of businesses as it aims to help organizations in achieving their mission, vision, and strategic directions. There might just be a challenge in these organizations not sharing their books for academic researches of this kind.

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Job Satisfaction and Organizational Commitment of Faculty Members

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Abstract

Satisfied and committed employees are one of the organization's top resources, yet no study regarding this facet has been conducted in Cavite State University Naic. The study attempted to investigate the level of job satisfaction and organizational commitment of faculty members of the institution. Descriptive-correlational research was employed and data were gathered using the Job Satisfaction Survey (JSS) questionnaire by Spector (1994) and Organizational Commitment Questionnaire (OCQ) by Allen and Meyer (1990). 50 faculty members served as the respondents of the study. The investigation revealed that there is no significant difference in the job satisfaction index and organizational commitment level between male and female faculty members. They are *moderately satisfied* with supervision and nature of work, *satisfied* with their co-workers, pay, communication, promotion, fringe benefits, and contingent rewards, but they are *dissatisfied* with the operating conditions in the campus. Furthermore, they showed *weak level* of affective and continuance commitments, and moderate level of normative commitment. There is a *moderate positive relationship* between the over-all job satisfaction index and over-all organizational commitment level. It is recommended that the administration devise ways and means to improve the operational conditions where the faculty members showed dissatisfaction. It is further recommended to investigate the role and impact of human resource management practices (HRM) on job satisfaction and organizational commitment among the academic employees.

Keywords: *job satisfaction, organizational commitment, faculty members*

Job satisfaction is what employees are craving for in their working environment. According to a Thesaurus, "satisfaction is a touch of happiness and accomplishment that the employees go through with regards to their works". Satisfaction is the level of fulfillment of one's needs, wants, and desires. It depends upon what people want from the world, and what they get." It is the "degree to which people like their jobs (Spector, 1997). In other words, satisfaction describes how the employees feel contentment in their jobs. Just like others say "the happier the individuals with their jobs, the more satisfied they are in their work setting."

It can also be said that job satisfaction is closely related to individuals' gratifications of needs. It is composed of affective, cognitive, and behavioural elements that vary from one individual to another in terms of intensity and consistency. Measuring job satisfaction level of the faculty members became the interests of many researchers that is why many published works discussed the vital importance of this concept. Managers, human resource specialists, supervisors, and workforces themselves find ways and means to heighten the job satisfaction of the employees to retain and to improve the bottom-line organization. Oshangbemi, 1999 (as cited by Saba, 2013) mentioned that physical and mental health also depends upon

the level of employees' job satisfaction. On the other hand, Alam, Talha, Sivanand, and Ahsan (2005) revealed in their studies that the well-being of the employees could be improved by understanding the factors such as pay, promotion opportunities, support of research, support of teaching, and fringe benefits. These factors have a significant impact on the part of the employees. More so, it is an important technique used to motivate the employee to work harder. The common belief "a happy employee is a productive employee" comes from a satisfied member of an organization.

According to Caught and Shadur (2000), organizational commitment is the employees' state of being committed to assisting in the achievement of the organizational goals, and involvement to the level of identification and loyalty. It is an emotional response assessed through people's behaviors, beliefs, and attitudes and can range from the lowest to the highest level of satisfaction.

Three types of organizational commitment were identified by Meyer and Allen (1997), namely: affective, continuance, and normative. These commitments that serve as employees' driving force to work harder are more powerful than their best intention, willpower, or circumstance. The importance of the concept of organizational commitment in terms of leading the organization and producing desirable outcomes (*e.g.,* increased effectiveness, reducing absenteeism and turnover) has been documented by many studies (Irefin & Mechanic, 2014; Kaplan & Kaplan, 2018).

The research of Ozdemir (as cited in Saba, 2013) expound that the employees who get hold of maximum job satisfaction want to be a part of the organization for a longer period and become the productive performer of the group. This statement proves that job satisfaction equates job productivity and job retention; thus, if the employees have satisfaction in their work, they will show commitment to the organization. Based on these findings, it is likely that job satisfaction is a dominant factor influencing the organizational commitment of employees.

This study explored the maximum factors that may increase or decrease job satisfaction and organizational commitment. Similarly, the authors wanted to measure the extent to which various factors affect the satisfaction and organizational commitment level of faculty members with the end in view that if teachers become satisfied from their job and committed to the mission for which their organization stands for, then they can accomplish better and the students are the immediate recipients of this. The overall quality of education delivered can be increased in this way; hence this research.

Objectives of the Study:

The primary purpose of this study was to investigate the level of job satisfaction and organizational commitment of the faculty members of Cavite State University Naic.

Specifically, the study aimed to:

1. Ascertain the job satisfaction and organizational commitment level of faculty members when grouped according to gender, age, length of employment and departmental affiliation;
2. Find out the significant difference in the job satisfaction index and organizational commitment level between male and female faculty members;
3. Determine the level of contentment of faculty members regarding the following aspects of job satisfaction: pay, promotion, supervision, fringe benefits, contingent rewards (performance-based rewards), operating conditions (required rules and procedures), co-workers, nature of work, and communication;
4. Ascertain the level of organizational commitment of the faculty members in terms of affective, continuance, and normative commitments;
5. Find out the relationship between job satisfaction and organizational commitment; and
6. Draw implications and recommendations from data gathered.

Conceptual Framework

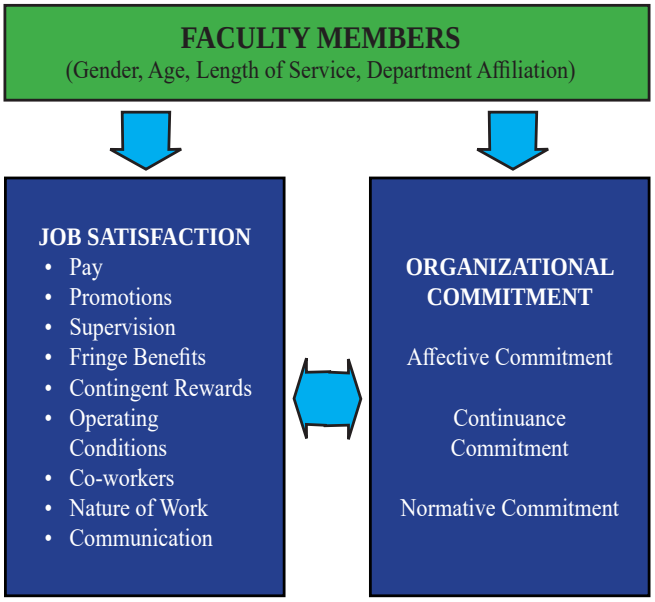

Figure 1. The Conceptual Paradigm of the Study

Figure 1 depicts the conceptual paradigm of the study. The investigation determined, compared and correlated the levels of job satisfaction and organizational commitment of faculty members of CvSU Naic. The comparison will be made based on the following groupings: gender, age, length of service, and departmental affiliation.

Materials and Methods

The investigation employed descriptive-correlational research. As used in this research, the demographic data of the respondents, current job satisfaction, and organizational commitment level weredescribed using frequency, percentages, mean, and rank. The correlation part determined the existing relationship between job satisfaction and organizational commitment of the faculty members.

Complete enumeration of faculty members (contractual, temporary, or permanent status) and connected with the campus for at least one semester, were engaged as respondents since the number of academic staff is few. For ethical consideration, a letter of information and consent were distributed to the respondents notifying them of the purpose of the research. The information given was used for research purposes only and the reposndets were assured that their identity and individual answers will be kept confidential.

Instruments

The Job Satisfaction Survey (JSS). The JSS by Spector (1995), is a 36 item questionnaire, nine -facet scale to assess employee's attitudes about the job and aspects of the situation. Each facet is evaluated with four items, and a total score is computed from all items. A summated rating scale format is used requiring the respondent to answer each question on a 6 point rating scale, from *disagree very much* to *agree very much*. The items are written in either in a positive or negative direction. Scores on each of nine facet subscales, based on 4 items each, ranges from 4 to 24; while scores for total job satisfaction, based on the sum of all 36 items, ranges from 36 to 216. Each item is scored from 1 to 6 if the original response choices are used. High scores on the scale represent job satisfaction, so the scores on the negatively worded items must be reversed before adding with the positively worded items. A score of 6 representing the strongest agreement with a negatively worded item is equivalent to a score of 1 representing strongest disagreement on a positively worded item, allowing them to be combined meaningfully.

Three - Component Organizational Commitment Questionnaire (OCQ). The OCQ by Allen and Meyer (1990) assessed the three forms of employee commitment to an organization: desire-based (affective commitment), obligation-based (normative commitment) and cost-based (continuance commitment). The survey includes three well-validated scales, the Affective Commitment Scale (ACS), the Normative Commitment Scale (NCS) and the Continuance Commitment Scale (CCS). Each is scored separately and can be used to identify the "commitment profile" of employees within an organization. The OCQ is a 24 item questionnaire which requires the respondent to answer each item on a 7-point rating scale ranging from strongly disagree to agree strongly. An "R" denotes negatively phrased and reverse-scored items.

Operationalization of Variables

For the purpose of performing statistical analysis, the variables were operationalized as follows:

The faculty member's perception of job satisfaction index was interpreted as follows:

Scale	Range	Verbal Interpretation
6	5.16 - 6.00	Very Satisfied
5	4.33 - 5.15	Moderately Satisfied
4	3.50 - 4.32	Satisfied
3	2.67 - 3.49	Dissatisfied
2	1.84 - 2.66	Moderately Dissatisfied
1	1.00 - 1.83	Very Dissatisfied

The organizational commitment level of the respondents was interpreted as follows:

Scale	Range	Verbal Interpretation
7	6.17 - 7.00	Very strong commitment
6	5.31 - 6.16	Strong commitment
5	4.45 - 5.30	Moderate commitment
4	3.59 - 4.44	Weak commitment
3	2.73 - 3.58	Very weak commitment
2	1.87 - 2.72	Uncertain commitment
1	1.00 - 1.86	No commitment at all

Statistical Analysis

Descriptive statistics such as frequency counts, ranks, means, and percentages were utilized to describe the responses and summarize the data regarding the demographic characteristics and the existing levels of job satisfaction and organizational commitment of the respondents (SOP 1), the level of satisfaction of faculty members as regards the different facets of job satisfaction (SOP 3), and the level of organizational commitment of the faculty members in terms of affective commitment, continuance commitment, and normative commitment (SOP 4). The *t*-test assessed the significant difference in the job satisfaction index and organizational commitment level between males and females faculty members (SOP 2); while Pearson's *r* analysed the existing relationship between job satisfaction and organizational commitment of faculty members (SOP 5).

Hypothesis

There is no significant relationship between the overall job satisfaction and organizational commitment of faculty members.

Results and Discussion

Profile of Respondents

The respondents of the study are 50 faculty members of Cavite State University Naic, coming from five academic departments of the campus, whether in permanent, temporary, or contractual status. A complete enumeration of faculty members was targeted, however, two of the distributed questionnaires were not retrieved, and one was discarded due to incomplete data.

Table 1
Profile of the Respondents

Group	Frequency (*n*)	Percent (%)
Gender		
male	16	32
female	34	68
total	**50**	**100**
Age		
Under 26 years old	7	14
26-35 years old	11	22
36-45 years old	13	26
46-55 years old	8	16
56-65 years old	11	22
total	**50**	**100**
Length of employment		
below 10 years	25	50
11 - 20 years	6	12
21 - 30 years	9	18
31 - 40 years	10	20
total	**50**	**100**
Department affiliation		
asd	5	10
fmsd	11	22
itd	10	30
md	6	12
ted	18	36
total	**50**	**100**

The respondents are comprised of 34% males and 68% females; 14% are under 26 years old, 22% are within the age range of 26-35 years old; 26% are within 36-45, 16% of the respondents are aged 46-55, and 16% are aged 56-65. As for the length of employment, 50% of the respondents are below ten years in service, 12% are within 11-20 years, 18% are within 21-30 years, while 20% are within 31-40 years in service. Ten percent of the respondents came from the Arts and Science Department (ASD), 22% from the Fisheries and Marine Science Department (FMSD), 20% from the Information and Technology (ITD), 12% from Management Department, and 36% from Teachers Education Department (TED).

Job Satisfaction Index and Organizational Commitment Level of Faculty Members According to Group

The job satisfaction index and organizational commitment of faculty respondents were analysed according to gender, age, length of employment, and departmental affiliation using mean and *SD*. The data were presented in Table 2.

The mean and standard deviation showed that the job satisfaction index and organizational commitment level of faculty members vary for each group. The study revealed that females have a higher level of job satisfaction and organizational commitment as compared to males. This might be explained by the findings of Spector (1997) asserting that the differences in the job expectations between males and females are due to their different social roles. Women give more importance to social relationships and working conditions while men are more contented with factors such as pay and promotion prospects. The expectancy level of women is less than their male counterparts; hence, a higher job satisfaction index.

The findings for the organizational commitment as regards the age group varied from that of job satisfaction. The group aged 46-55 years old recorded the strongest, while those ranging from 26-35 years old showed the weakest organizational commitment. These differences might be attributed to the generational gap between younger and older employees.

Table 2
Job Satisfaction Index and Organizational Commitment Level of Faculty Members

Group	Job Satisfaction Index		Organizational Commitment Level	
	Mean	*SD*	Mean	*SD*
Gender				
Male	3.89	0.60	4.60	0.55
Female	4.30	0.71	4.85	0.85
Age				
Under 26 years old	4.16	1.00	4.69	0.81
26 – 35 years old	4.19	0.76	4.54	0.55
36 – 45 years old	4.28	0.54	4.86	0.78
46 – 55 years old	4.10	0.52	4.96	0.94
56 – 65 years old	4.08	0.80	4.79	0.88
Length of employment				
1– 10 years	4.22	0.78	4.71	0.79
11–20 years	4.12	0.54	5.10	0.64
21 –30 years	4.03	0.81	4.57	0.91
31– 40 years	4.17	0.70	4.77	0.77
Department affiliation				
ASD	4.92	0.79	5.19	0.89
FMSD	3.98	0.64	4.51	0.78
ITD	4.29	0.48	5.00	0.54
MD	3.88	0.67	4.31	0.66
TED	4.10	0.73	4.83	0.83
Overall	4.17	0.70	4.77	0.77

When the academic staff were grouped according to the length of employment, those with 1-10 years of work showed the highest job satisfaction while those ranging from 21–30 years with the organiza-

tion revealed the lowest. The organizational commitment was strongest with the group ranging from 11–20 years in the organization while the weakest was observed from the group connected with the organization from 21–30 years. The organizational commitment was strongest with the group ranging from 11–20 years in the organization while the weakest was observed from the group connected with the organization from 21–30 years.

When grouped according to department affiliation, the faculty from the Arts and Science Department (ASD) showed the highest job satisfaction and strongest organizational commitment while those from the Management Department revealed the lowest job satisfaction and weakest organizational commitment.

Significant Difference in the Job Satisfaction Index and Organizational Commitment Level Between Male and Female Faculty Members

The significant difference between the perceived job satisfaction index and organizational commitment level between the male and female faculty were investigated using independent *t*-test. The result was summarised and presented in Table 3.

Table 3
T-Test for Significant Difference in the Job Satisfaction Index and Organizational Commitment Level Between the Male and Female Faculty

Gender	Job Satisfaction Index		Organizational Commitment Level	
	Mean	*SD*	Mean	*SD*
Male	3.89	0.60	4.60	0.55
Female	4.30	0.71	4.85	0.85
t-value	*-1.985*		*-1.080*	
p-value	*0.053*		*0.286*	

The independent *t*-test revealed that there was *no significant difference* in the job satisfaction index between male (mean = 3.89, *SD* = 0.60) and female (mean = 4.30, *SD* = 0.71) faculty members with *t*-value of – 1.985 and *p*-value of 0.053. The perceived moderately high level of job satisfaction shown by both male and female faculty members of CvSU Naic does not differ significantly.

This finding is supported by the studies of Amarasena, Ajward and Ahasanul Haque (2015), Hagos and Abrha (2015) and Ward and Sloane (2000) conducted in Pakistan and Scotland, respectively. Such studies asserted that a significant difference is not present in the degree of satisfaction between males and females academic staff.

Likewise, the independent *t*-test exposed that there was *no significant difference* in the organizational commitment level between male (mean = 4.60, *SD* = 0.55) and female (mean = 4.85, *SD* = 0.85) faculty members with *t*-value of – 1.080 and *p*-value of 0.286. The slightly strong commitment of the female faculty members of CvSU Naic does not differ significantly with their male counterparts.

These findings might be explained by the equal treatment and opportunities given to males and females in the present society, especially in the advent of Gender and Development (GAD). Their level of job expectations and organizational commitment might not vary significantly from each other.

Different Aspects of Job Satisfaction and Their Influence on Over-All Job Satisfaction as Perceived by the Faculty Members

The rating of the faculty respondents on the different aspects of job satisfaction were analysed using mean, *SD*, and ranking, the result of which were shown in Table 4.

Table 4
Facets of Job Satisfaction and Their Influence on Overall Job Satisfaction

Facets of Job Satisfaction	Mean	*SD*	Rank	Interpretation
Supervision	4.84	0.89	1	Moderately satisfied
Nature of work	4.69	0.84	2	Moderately satisfied
Co-workers	4.37	1.02	3	Satisfied
Pay	4.36	0.91	4	Satisfied
Communication	4.32	0.91	5	Satisfied
Promotion	4.13	0.93	6	Satisfied
Fringe benefit	3.96	1.00	7	Satisfied
Contingent rewards	3.94	0.88	8	Satisfied
Operating condition	2.95	0.80	9	Dissatisfied
Over-All Job Satisfaction Index	4.17	0.70		Satisfied

The table presenting the nine facets of job satisfaction revealed the order on which they affect job satisfaction as perceived by the faculty respondents. The study showed that among the nine aspects, supervision received the highest satisfaction rating, (Rank 1) followed by the nature of work (Rank 2). Both of these two aspects were rated as *moderately satisfied* by the faculty members.

It was likewise exposed that the respondents were *satisfied* with their co-workers, pay, communication, promotion, fringe benefits, and contingent rewards, ranked as 3rd, 4th, 5th, 6th, 7th and 8th respectively among the aspects of job satisfaction. However, it is alarming to note that the faculty members were dissatisfied with the operational conditions in the institution.

The aspect of supervision receiving the highest rank among the facets of job satisfaction means that the respondents like their supervisor, believed that their supervisors are competent in doing their job, they show interest in the feelings of their subordinates, and those who do well in the post stand a fair chance of being promoted.

On the other hand, in the operational conditions, where the respondents were dissatisfied, exposed that many of the rules and procedures being implemented make doing a good job tiring, the efforts to do a good job are seldom blocked by red tape, there are too much paper works and too many things to do at work. The overall job satisfaction index, as perceived by the faculty members is 4.17, meaning that they are generally *satisfied* with their job.

Level of Organizational Commitment in Terms of Affective, Continuance and Normative Commitments

The level of organizational commitment of faculty members was interpreted in terms of affective commitment, continuance commitment ,and normative commitment using mean and *SD*.

The result is shown in Table 5.

Table 5
Affective, Continuance and Normative Commitments of Faculty Members

Types of Organizational Commitment	Level of Commitment		
	Mean	*SD*	Interpretation
Affective	4.36	0.91	Weak commitment
Continuance	4.13	0.93	Weak commitment
Normative	4.84	0.89	Moderate commitment

The table shows that the faculty respondents expressed a *weak* level of affective commitment. This means that they embrace the goals and values of CvSU-Naic to a lesser extent. Their emotional attachment to, identification with and involvement in the organization and feeling of personal responsibility for the organization's level of success, are less significant.

The faculty respondents likewise disclosed a weak level of continuance or calculative commitment to the institution. This type of commitment occurred when individuals based their relationship with the organization on what they are receiving in return for their efforts and what would be lost if they were to leave (i.e., pay, benefits, associations). The result of the study explains that the faculty members' commitment to the CvSU Naic as a result of the rewards matching their expectations is to a lesser extent only. Therefore their reason for staying in the organization based on felt needs is of little significance.

The study further exposed a moderate level of normative commitment. This imply that, to a certain extent, the faculty members remain with CvSU Naic due to their sense of obligation to stay based on expected standards of behavior or social norms. The academic staff value obedience, cautiousness, and formality and somewhat believe that it is their responsibility to stay in the organization.

Significant Relationship Between Job Satisfaction and Organizational Commitment

The relationship between job satisfaction and organizational commitment was analysed using Pearson's correlation and presented in Table VI below.

Table 6
Relationship Between Job Satisfaction and Organizational Commitment

Correlation Variables		Level of Significance	Pearson Correlation Coefficient
Independent	Dependent	*p*-value	*r*
Job satisfaction	Affective commitment	0.000	0.507**
	Continuance commitment	0.599	0.076ns
	Normative commitment	0.000	0.558**
	Overall organizational commitment	0.000	0.529**

Table 6 indicates that there is a *moderate positive relationship* between job satisfaction and the affective commitment ($p = 0.000$, $r = 0.507$). This implies that if employees are satisfied with their job, their commitment to stay in the position will likely increase because of the strong emotional attachment with the organization and the work being done. On the other hand, if employees are not satisfied with their job, their commitment to stay because of emotional attachment with the organization will probably decrease. According to Anton (2009) affective commitment towards an organization is a useful predictor of withdrawal behavior; thus, the lesser the affective commitment of the employees, the more likely they will move to other organization in the exploration for new prospects.

The study further disclosed that there is *no significant relationship* between job satisfaction and continuance commitment ($p = 0.599$). The finding denotes that whether the faculty members are satisfied or not with their job, it will not likely affect their continuance commitment with the organization. The study of Meyer et al. (as cited by Ismael, 2016) supports this, asserting that the employees in HEI's stay in the organization because they need it, not because they are satisfied. This implies that CvSU Naic's faculty members might have stayed in the organization, not because they are satisfied with their job but because they are afraid that if they transfer to other organization, they will not get what they got in the institution like high retirement benefit, compensation, fringe benefits and good relationship among their colleagues.

There is *a moderate positive relationship* between job satisfaction and normative commitment ($p = 0.000$, $r = 0.558$). The finding implies that if the employees are highly satisfied with their job, it will likely be accompanied by increased normative commitment. Faculty members will stay with the organization be-

cause they feel a sense of obligation to do so, even if they're unhappy with their role, or even if they want to pursue better opportunities. They feel that they should stay with their organization because it's the right thing to do.

Furthermore, there is a *moderate positive relationship* between overall job satisfaction and the overall organizational commitment ($p = 0.000$, $r = 0.529$). This finding indicates that a high level of job satisfaction will possibly result in a higher level of organizational commitment, and vice versa. The overall job satisfaction level of faculty members is 4.17 (*satisfied)* and the overall organizational commitment level is 4.77, *moderate* commitment level. Since the over-all job satisfaction (*satisfied*) is almost marginal, the overall organizational commitment is likewise not that strong.

In the light of this finding, the null hypothesis stating that there is no significant relationship between the job satisfaction and organizational commitment of faculty members was rejected.

Conclusions and Recommendations

The researchers arrived at the following conclusions based on the findings of the study:

1. Female faculty members have higher job satisfaction index and organizational commitment level as compared to their male counterparts; the faculty from the Arts and Science Department (ASD) showed the highest job satisfaction index and strongest organizational commitment level while those from the Management Department exposed the lowest; the job satisfaction indices and organizational commitment levels varies among the groupings based on age and length of service.
2. There is *no significant difference* in the job satisfaction index and organizational commitment level between male and female faculty members.
3. The faculty members are *moderately satisfied* with supervision and nature of work, *satisfied* with their co-workers, pay, communication, promotion, fringe benefits, contingent rewards, and *dissatisfied* with the operating conditions in the campus.
4. The faculty members of CvSU Naic showed a *weak level* of affective and continuance commitments, *moderate level* of normative commitment, and *moderate level* of overall organizational commitment.
5. There is a *moderate positive relationship* between the overall job satisfaction index and overall organizational commitment level of the faculty members.

Based on the results of the study, the following recommendations are hereby suggested by the researchers:

1. The organization should plan and develop the strategies to enhance the job satisfaction of the employees particularly in the operational conditions where faculty members are generally dissatisfied. Revisit the rules and procedures being implemented to do a good job more comfortably and minimize, if not completely eradicate, complicated tasks that seem unnecessary but are required.
2. The management should devise ways and means to increase the levels of organizational commitment of faculty members, *e.g.,* a well-planned and organized team building activity to be attended by everybody and managed by remarkable HR specialists.
3. Activities inspiring a shared vision, encouraging creativity, emphasizing development, building trust, and recognizing accomplishments can be done to build commitment among the faculty.
4. Nurture positive workplace relations; faculty members should maintain a good relationship with their superiors, peers, and co-workers.
5. Perceived organizational support must be made more evident; if the administration is concerned with their employees' commitment to the organization, employees would then focus on the organization's commitment to them.

6. For future researches, it is recommended to investigate the role and impact of human resource management practices (HRM) on job satisfaction and organizational commitment among employees.

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Legal Research Information System Among Legal Researchers in Makati Regional Trial Court

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Abstract

The aim of this study was to develop a web-based legal research information system for the Makati Regional Trial Court. The researcher answered the following questions: (a) What is the level of acceptance of the developed legal research information system to the legal researchers in Makati City Philippines? and (b) What is the level of effectiveness of the developed legal research information system to select IT Professionals in terms of the following criteria of the ISO 9126 model namely: Usefulness, Reliability, Usability, Efficiency, Maintainability and Portability? Primary evaluation data were collected by distributing questionnaires to twenty-five (25) respondents that was composed of twenty (20) Makati RTC Legal Researchers and five (5) selected IT Professionals. The software development and evaluation were conducted in the academic year 2017-2018. The researcher used the software quality model ISO 9126 in evaluating the developed system. This is in relation to the study made by AL-Badareen, Selamat, Jabar, & Din (2017) wherein they stated that the ISO 9126 is a piece of the ISO 9000 standard, which is the most essential standard for testing quality affirmation. The model determined six attributes including Usefulness, Reliability, Usability, Efficiency, Maintainability, and Portability. The findings showed that the software evaluation by the Makati Legal Researchers and selected IT Professionals were strongly accepted and that improvements were recommended for further development of the system.

Keywords: *legal; research; information; software; system*

Information in law is important not only in the advancement of a case but also to prevent useless litigation. It helps to convince a judge in bringing or releasing an action (Bhardwaj, 2015). According to the director of the Supreme Court Judges in India, Dr. Rakesh Kumar Shrivastava, Legal Research is the way toward recognizing and recovering data that are important to help lawful basic decision-making. Lawful research joins every movement of a technique that begins with an examination of the facts of an issue and completes up with the application and correspondence of the results of the examination (Shrivastava, Srivastava, Khare, & Pai, 2015). It underpins legitimate decision making, for example, complex lawful issues connected to particular tasks requiring complete responses for customers to pay for the legal practitioner's expertise (LexisNexis, 2012).

Legal research and legal writing are basic abilities important to the act of law. Hence, it should not shock anyone that a lawyer's inability to perform satisfactory legitimate research can damage the lawyer's expert duty. A showed absence of able lawful research and lawful composition execution is harmful to a lawyer's notoriety. Inability to sufficiently examine or compose legal researches well, or both, is an infringement of morals governs and can bring about a reprove, suspension, or disbarment from the act of law; a customer may conclude that it is the premise of a lawful misbehavior claim (Sase & Senick, 2010).

To help attorneys and lawful experts, legal researchers (LR) get ready for trials, discovering points of interest for the case and looking into laws and different regulations that might be applicable at the current

case. While legal counselors work principally inside the court, legal researchers do the "in the background" undertakings that make their occupations conceivable. The correct idea of what they should do differs; however, it normally includes relating to witnesses, customers, and legitimate and law implementation workforce to accumulate proof and foundation learning for a situation. Now and again, they may need to speak for the benefit of a customer in court (Become a Legal Research Assistant in 5 Steps, 2017).

In a 2013 overview directed by The Research Intelligence Group USA with 190 respondents leading lawful research in United States of America, legal researchers spend nearly 33% of their working hours driving legal research or around 14.5 hours for consistently all things considered (Lastres, 2013). This is why it is critical for legal researchers to outfit themselves with the essential abilities to empower them to easily meet their research targets (Ali, Yusoff, & Ayub, 2017).

Today, legal researchers depend on computer-assisted legal research with a specific end goal to appropriately comprehend the status of the law thus to act viably to the greatest advantage of their customer. Utilizing the progression of innovation helps any legal researcher find lawful inquiries quicker and more precise making it a major part in the maintenance, dispersal, and arrangement of lawful data benefits in a law office (Nguyen, 2013).

In the Philippines, the Makati Regional Trial Court (RTC) situated at 1339 Angono, Manila, Metro Manila fills in as the reference point of justice offering quick and opportune legal process in shielding the established and law-based rights and welfare of its people to seek after effective and productive organization of justice (Supreme Court of the Philippines and the Lower Courts Mission, 2015) . Managing diverse civil and criminal cases, the Makati RTC legal researchers of branches 56 to 66, 132 to 150 faces difficulties of doing lawful inquires.

Legal researchers in Makati RTC plays a big part in assisting legal practitioners in court besides finding legal researches and affirm data applicable to court cases, hearings, testimonies, and lawful gatherings. They likewise perform related regulatory obligations, for example, preparing authoritative reports and looking after records. Because of the idea of their work, they work in extended periods of time in law libraries and workplaces, and even travel. Ordinarily, legitimate specialists work under the supervision of a lawyer, and they are not allowed to offer lawful administrations straightforwardly to the general population.

Ms. Elizabeth D. Dela Serna, the 2017 President of the Court Legal Researchers Association of the Philippines (CLERAP) Makati Chapter, said in an interview that lawful research is both a calling and a challenge. Indeed, even with the assistance of innovation and the web, she conceded that the Makati RTC is prepared yet not totally outfitted for regular legitimate research. Even if provided with a library and different methods for finding lawful assets given to them by the legislature, she admitted that finding legal researches faster is still a concern.

One example is the SCRA (Supreme Court Reports Annotated) available in the Makati RTC library is only updated annually. Meaning that they don't have the latest list of Supreme Court Reports on time unlike private law firms that updates their SCRA quarterly. Other challenges are slow internet connection, limited man power and lack of IT support. These all together makes their legal research time consuming.

But one problem that she also mentioned was the lack of proper directory of legal researches done by the LR. After research, legal information is kept in boxes, folders and cabinets piled in rooms which in the long run is hard to locate if other legal researchers would like to take reference from it. With only limited manpower, searching for existing lawful research sources is hard and time consuming. This results for legal researchers to do the same researches again from scratch instead of looking for it specially if it is really needed. This method results for more documents being stored and printed, lesser room space for employees, higher paper and printing cost and redundant researches. Also, possible lost or stolen researches may also not be monitored due to lack of proper monitoring and directory.

In lieu of the necessities being assembled through the arrangement of meetings made by the researcher, a Legal Research Information System for the Makati RTC was developed to assist the Makati Regional Trial Court legal researchers in maintaining and archiving legal researches.

Methodology

Project Design

The project design followed the requirements specified by the legal researchers in Makati Regional Trial Court as clients for the developed system.

Design Considerations. The legal research information system should blend to the color of Makati Philippines which is color blue. Font name and size must be adequate for users aged 20 years old and above. All main menus should be in one side of the website and a background of white is preferred for a clean ambiance of the system to prevent eye-stress towards the users.

System Environment. The Legal Research Information System is expeted to work in all operating systems and be accessible through any laptop and desktop. This is why a the system was created in a web-based design to accomplish such requirements.

Flowchart. Basic uses for flowcharts incorporate creating strategies for success, characterizing investigating steps, and planning scientific calculations. In this area, the researcher presents the flowchart of the current procedure of how legal research topics are maintained in Makati RTC and the flowchart of the developed legal research information system.

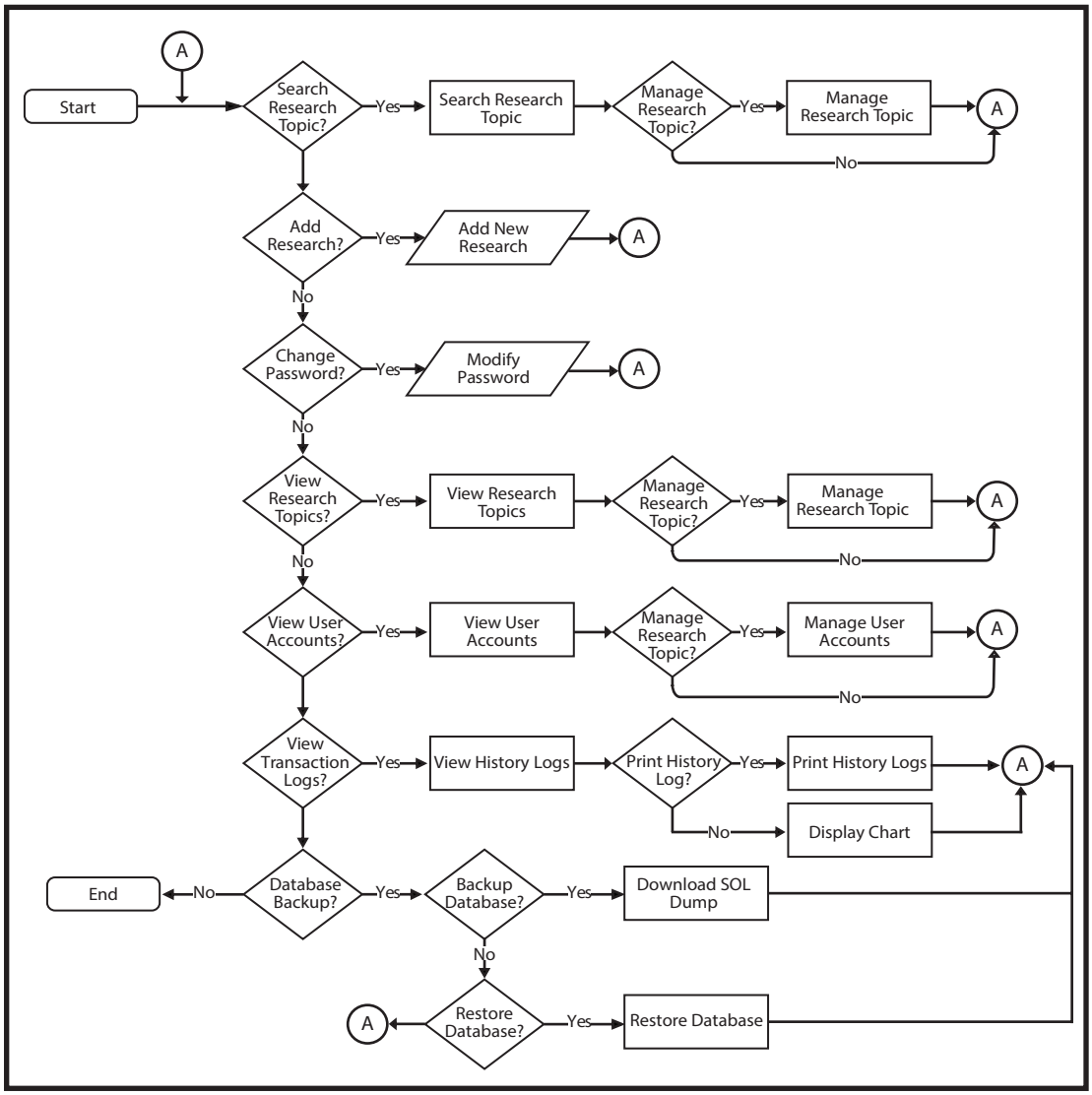

Figure 1. The Flowchart of the Developed Legal Research Information System for the Legal Researchers at Makati Regional Trial Court

Software Development Lifecycle. The Waterfall Development Life Cycle Model according to the work of Melsatar (2012) stated by Egwoh and Nonyelum (2017) is a straight progressive stream in which every advancement level is seen as gushing determinedly downwards (like a waterfall) through the times of program improvement. This suggests any phase in the method begins just if the last stage is done. The waterfall approach does not describe the system to retreat to the past stage to manage changes of necessity. The waterfall approach is the main SDLC's most used methodology for program improvement. Initially, the Waterfall model in Figure 2 was proposed by Winston W. Royce to depict a conceivable programming building practice in 1970.

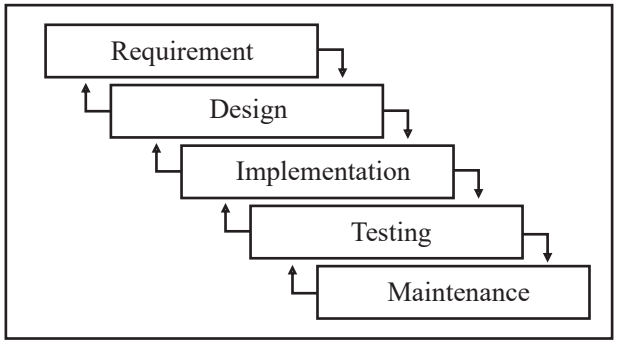

Figure 2. Waterfall diagram

UML Diagram. The UML Diagram of the developed system includes the accounts privileged enter the system namely the administrator, research coordinator, legal researcher, and the user accounts. Shown in the figure are the parts of the system that each account can access in the system. The UML diagram also presents the different features of the developed system and its additional sub features.

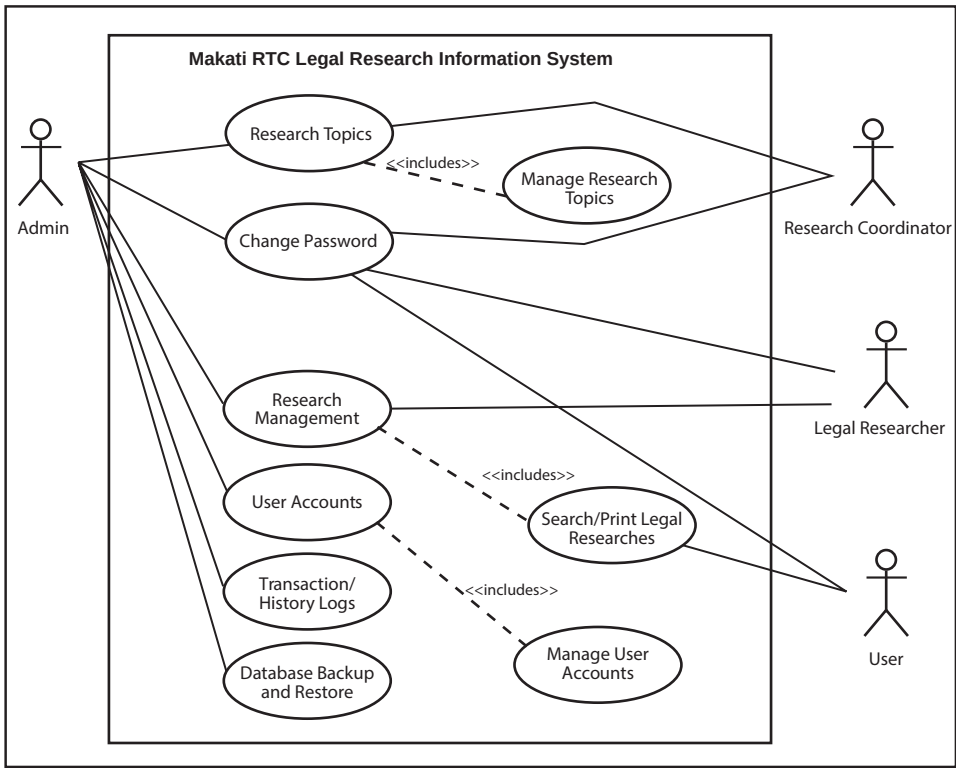

Figure 3. UML Diagram of the Developed Makati RTC

Project Development Tools

The following are the tools and operations used in developing the web-based information system such as programming languages, databases, and design software:

Web Development Tools

Front-end Development Tools

- ***HTML*** - Short for Hypertext Markup Language is a major markup language that portrays the structure of content-based data in a document by recognizing texts as heading, images, paragraphs, and so on. It can likewise depict the structure and content of a text and makes it simple for any program to render that page into the PC screen (Gopalan & Akilandeswari, 2014). Being one of the cornerstone of web development together with Javascript and CSS according to Sangeeta Nair and Sidney Andrews (2017), the researcher used HTML in developing the web-based information system for Makati RTC.
- ***JavaScript*** - JavaScript is an interpreted client-side scripting language that permits a website programmer to embed code into their web page. JavaScript is generally put into a HTML or an ASP file, and runs specifically from the web page. It is used to perform instructions, for example, printing the time and date, make a date-book, or different undertakings that are unrealistic through plain HTML (Javascript, 2017) In this study, the researcher used Javascript in developing the system because of its usability and flexibility

Back-end Development Tools

- ***Apache*** - Is an openly accessible Web server that is circulated under an "open source" permit. As indicated by the Apache Software Foundation, the name 'Apache' was looked over the regard for the Native American Indian clan of Apache, surely understood for their predominant aptitudes in fighting technique and their unlimited continuance. "Apache" is otherwise called Apache HTTP Server. A few advantages of utilizing Apache HTTP are long history of unwaver-ing quality and execution, running in any OS, for example, Windows, Linux, Windows and MacOS and it is effectively kept up. (Forties, 2014) In this study, the researcher used Apache via XAMPP in developing the web site for Makati RTC legal researchers.
- ***PHP*** - Hypertext Preprocessor, or PHP, according to a book "PHP and MYSQL Web Development" by Luke Welling and Laura Thomson (2017), is a server-side scripting language outlined particularly for the web. Inside a HTML page, you can add PHP code that will be executed each time the page requested. PHP code is interpreted at the web server and creates HTML or other output that the guest will view. PHP was developed in 1994 and was initially crafted by one man, Rasmus Lerdorf. As indicated by Google's Greg Michillie in May 2013, PHP ran more than of seventy five percent (75%) of the world's sites, and that number had become more than 82% by July 2016. Because of its popularity and flexibility, the researcher has chosen to use PHP in developing the website for Makati RTC.

Database

- ***Mysql*** - Consequently, MYSQL is a multiuser, multithreaded server. It utilizes Standard Query Language (SQL) the standard database query language for database. MYSQL has been freely accessible since 1996 and recognized to be the world's most famous open-source database.

Graphic Design Tools

- ***Adobe Photoshop*** - is the world's pioneer in digital imaging software. It is perfect for fashioners, picture takers, web experts, video experts, 3D specialists, and originators.

Opeating Procedures

Operating procedure are well-ordered systems on the most proficient method to accomplish something that is critical to quality, protection procedures, or safety. It guarantees that steadiness and protection of certain expected measures in the formation of a given item or the arrangement of specific administrations are come to and kept up. This section shows the different parts and features of the developed web-based system and its usage.

Figure 4. The Login Screen

The login screen shows the initial web page of the Makati RTC Legal Research Information System. The user will be asked to login with a valid username and password. After correct login, the user will be directed to the website's home page with accordance to the user's access if he/she is an administrator, research coordinator, legal researcher, or user.

Figure 5. The Main Menu (Administrator Account)

Figure 5 displays the homepage of the Makati RTC Legal Research Information System showcasing all menus that the administrator account can access. The administrator account has two sections namely: Research and Settings. The research section provides two basic transactions for adding and searching researches. The settings section provides a menu for changing passwords, maintaining the research topics, user account maintenance, monitoring transaction logs, and database backup.

Figure 6. The Main Menu (Legal Coordinator Account)

Figure 6 shows the Makati RTC Legal Research Information System homepage for research coordinator. This account is useful for research coordinators who has the privilege to add and maintain research topics and legal researches and change its password for security.

Figure 7. The Main Menu (Legal Researcher Account)

Figure 7 shows the home page of a legal research account that has limited menus of searching and maintaining legal researches and a menu for changing password.

Figure 8. The Main Menu (User Account)

Figure 8 shows the main menu for the user account that is allotted for lawyers and other legal professionals who would like to search for legal researches done by the legal researchers about a specified topic and print it.

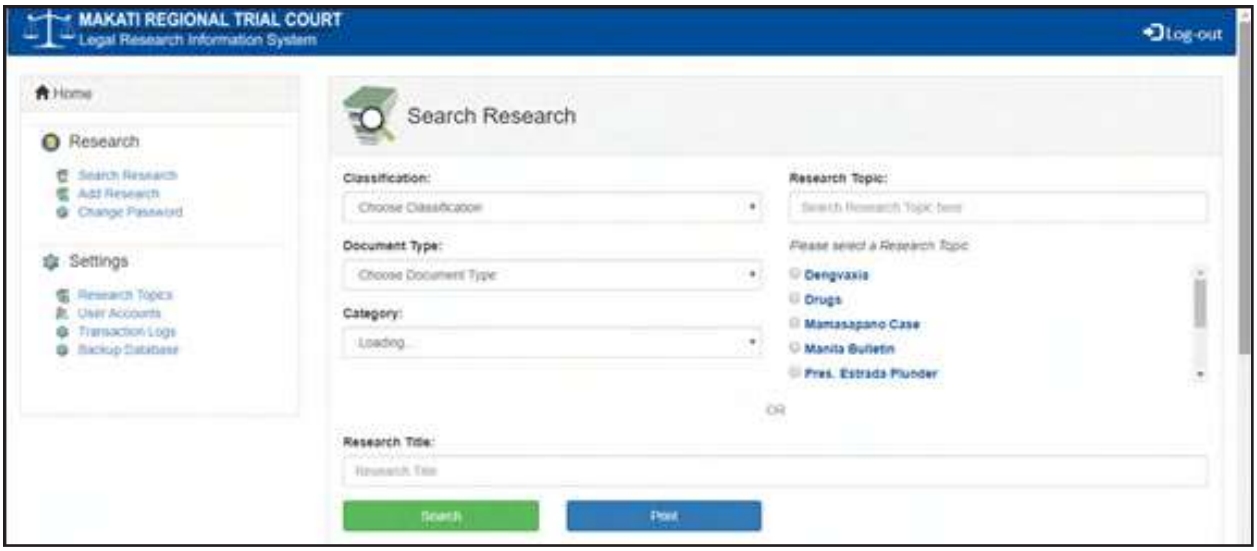

Figure 9. The Search Research Section

Figure 9 shows the search research part of the website wherein users can search for a desired research topic. The user will have to input a classification (civil or criminal case), document type (cases, articles, law), category, and the particular research topic of choice to search and press the Search button.

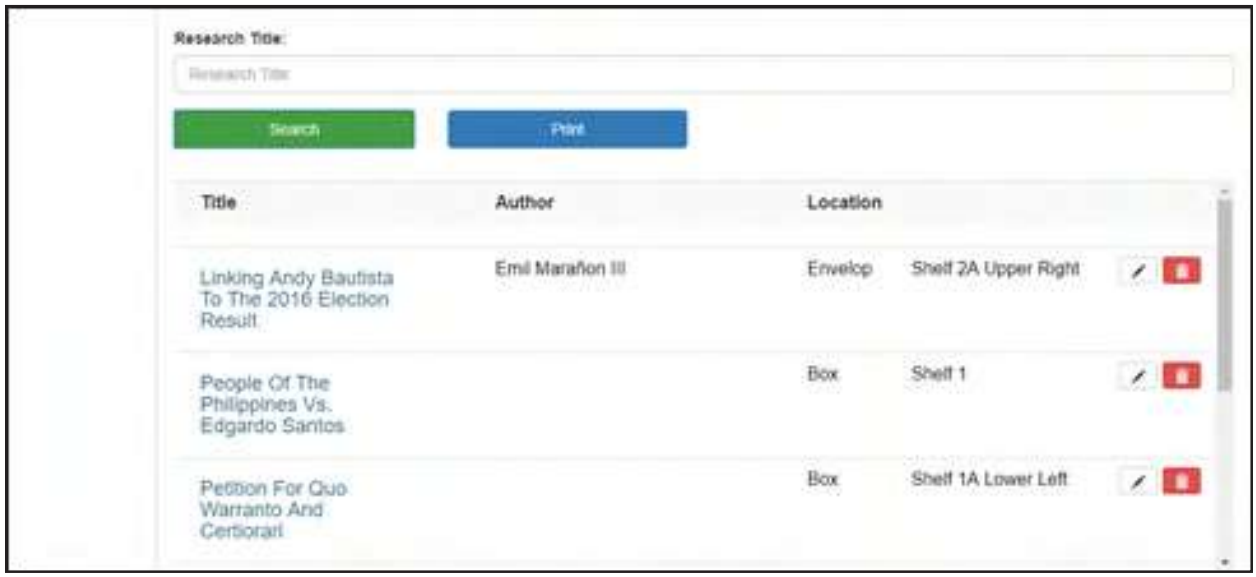

Figure 10. The Search Research Result List

Figure 10 shows the research list search result. Modify and delete icons are provided at the side of each research result to modify, delete, or print the research if desired.

Figure 11. The Research List Print Preview

Figure 11 shows the research list print preview that enables the logged in user to preview the report list in portable document format (.pdf) view. Once loaded, the user can either download the report using the download icon located at the upper right corner of the screen or print it using the print icon.

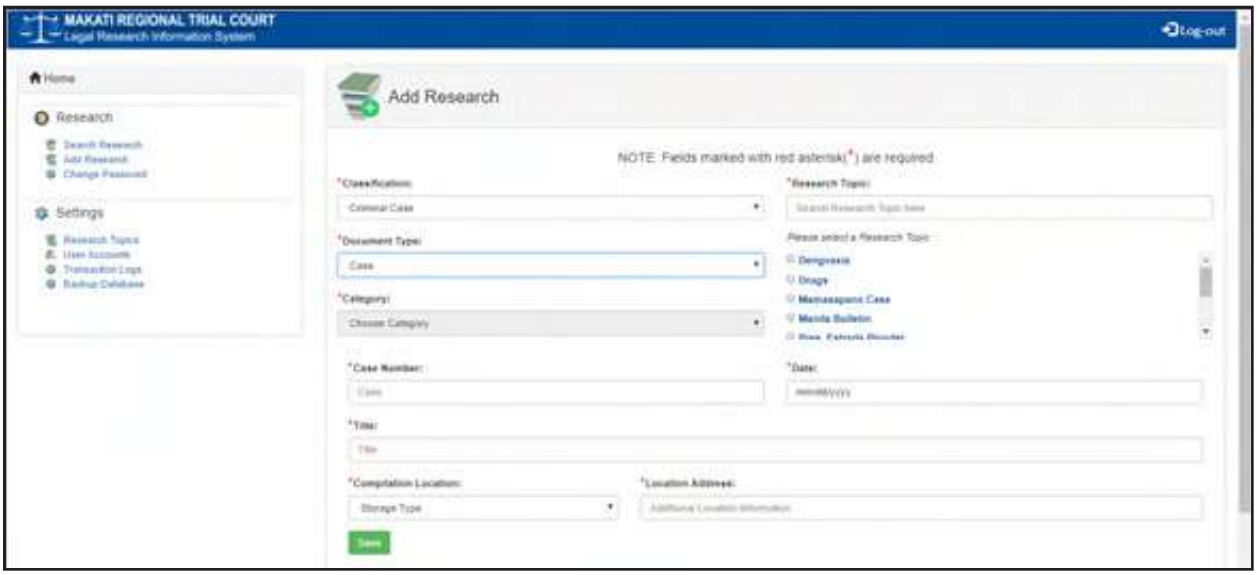

Figure 12. Add Research Section

Figure 12 shows the add research section of the developed system displaying all the fields necessary for a new legal research. Fields with a red asterisk are mandatory to be filled up or else, the new research will not be saved.

Figure 13. Change Password Section.

Figure 13 shows the change password section that enables the user to change his/her password for login security.

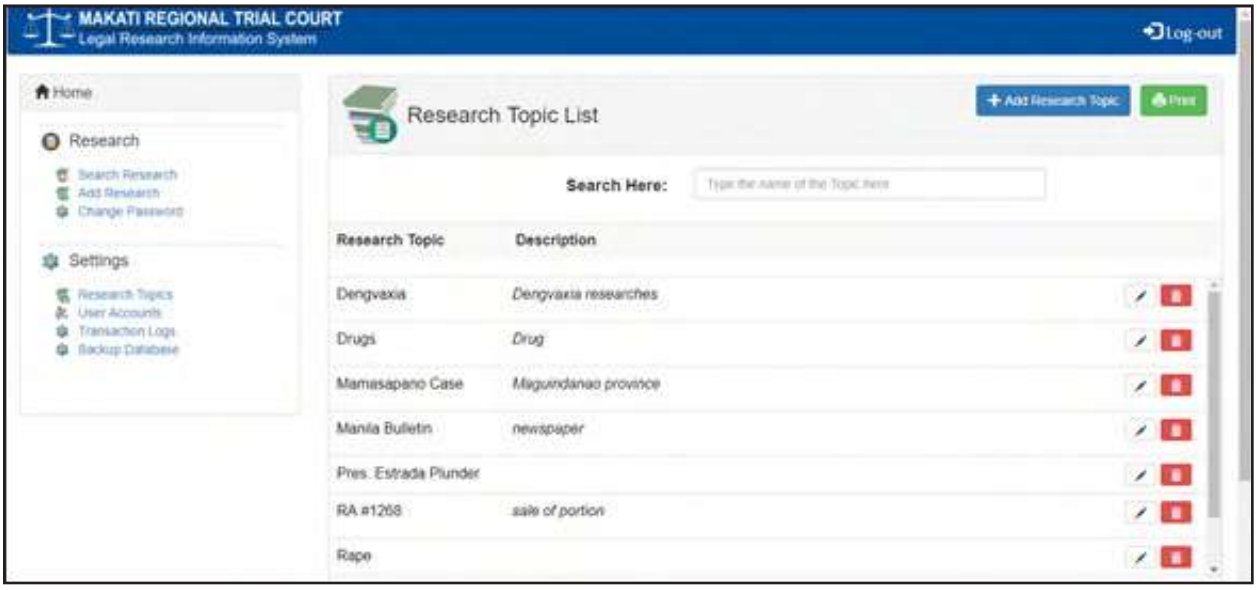

Figure 14. Research Topic List

Figure 14 shows the research topic list available in the system that were added by the administrator or research coordinator. Research topics are specified topics that legal researches can only make a research on. Icons are provided for each research topic to modify or delete. At the upper right corner of the screen, buttons are provided to either print the search result or add a new research topic.

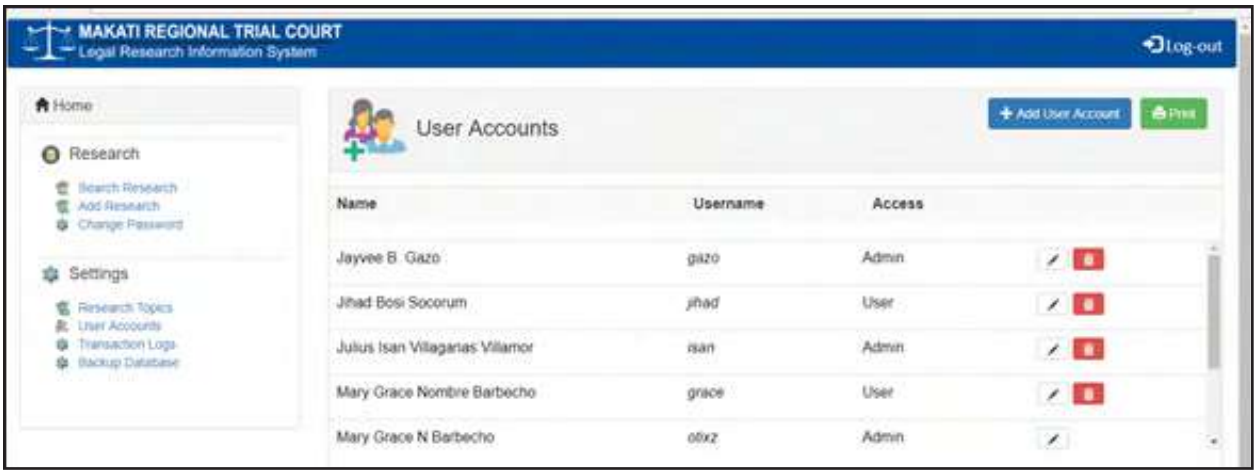

Figure 15. User Account List

Figure 15 shows the list of users that can log into the system. Indicated are the names of the users, the username, and the user privileges assigned to them. Icons are provided for the administrator to add, modify, delete, or print the list.

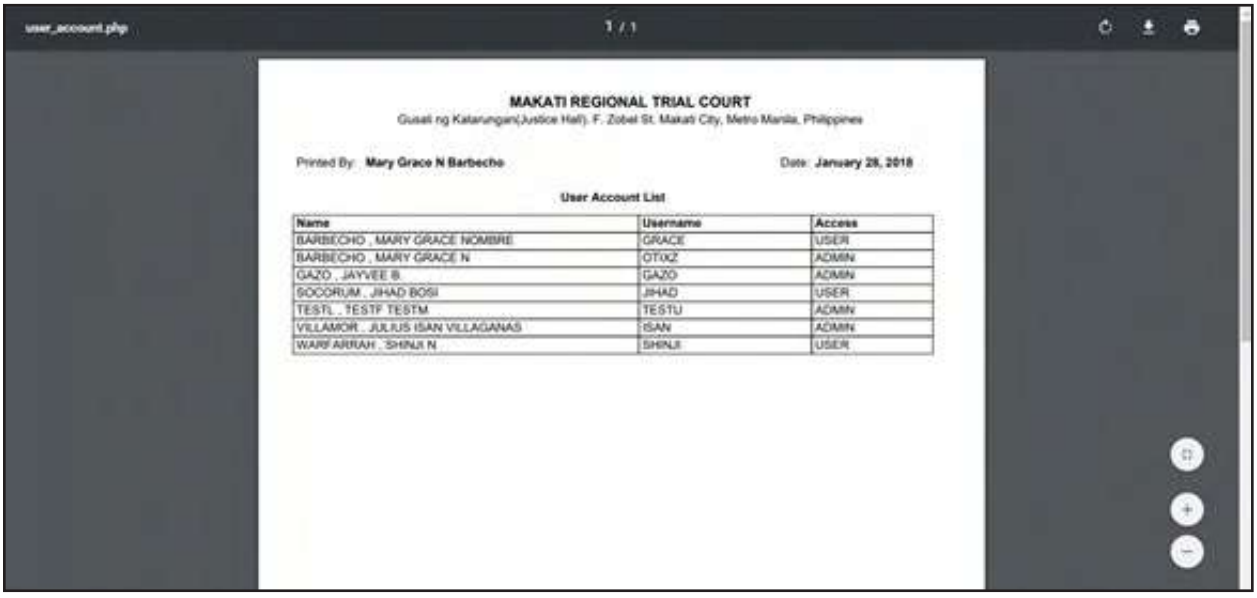

Figure 16. User Account List Print Preview.

Figure 16 shows the user account list print preview in pdf format which can be printed or downloaded as a .pdf format.

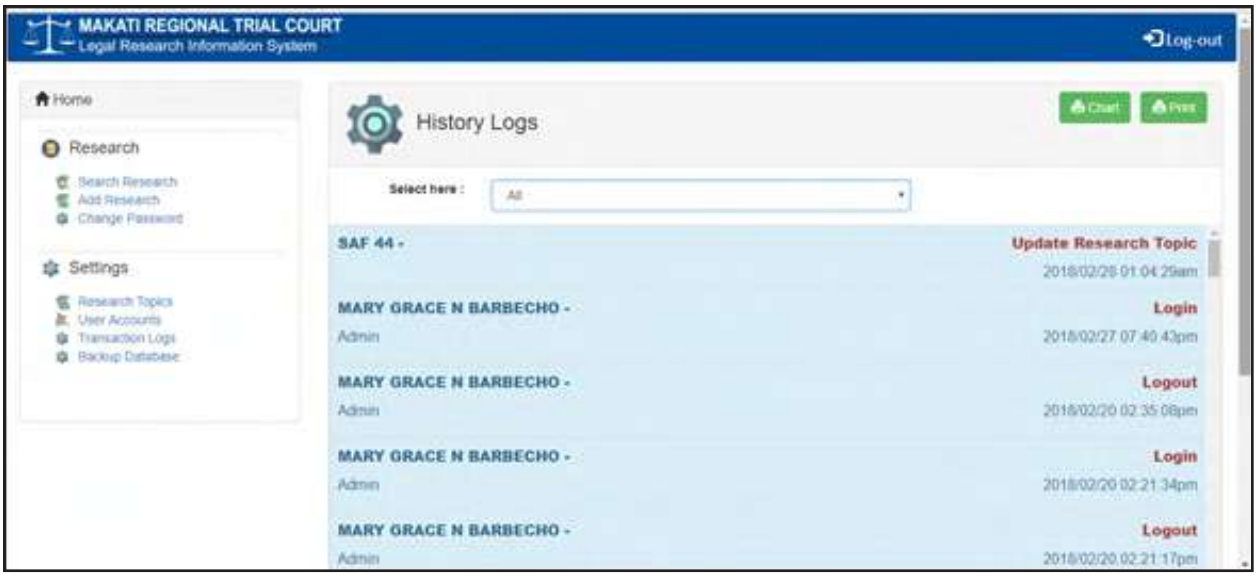

Figure 17. History Logs List

Figure 17 shows the history logs list that shows the different transactions done in the system. There are four (4) options in viewing transaction logs. These are:

- All – view all transactions done in the system
- Login – show only the login activities of users
- Logout - show only the logout activities of users
- Transaction – view only transactions done by the users aside from login activities

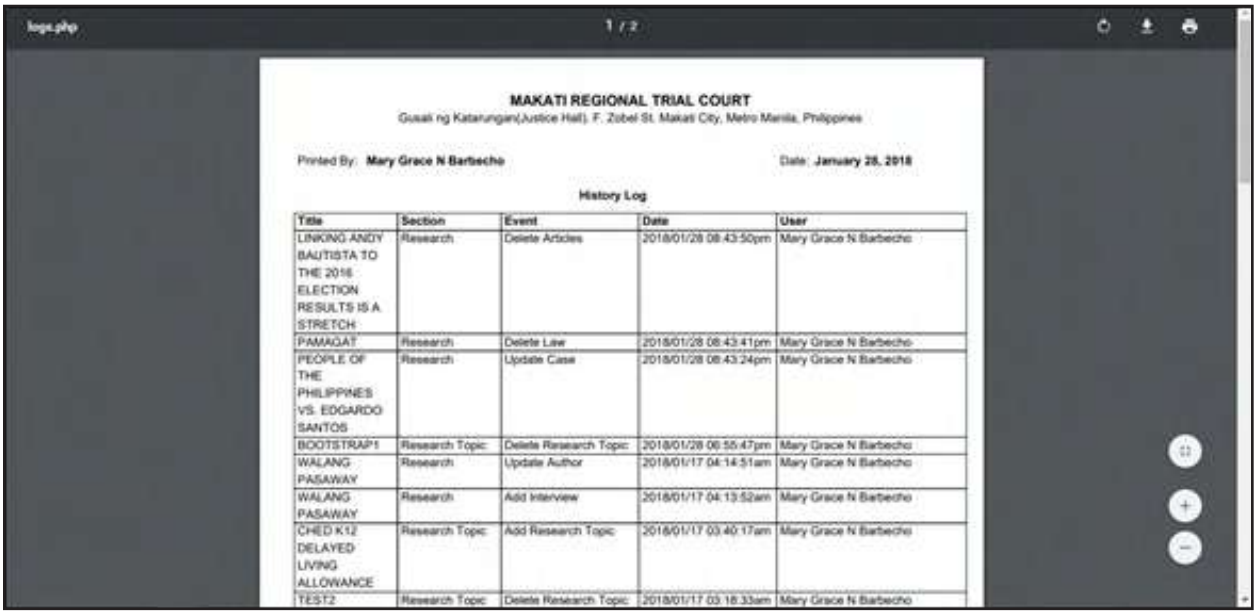

Figure 18. Transaction Logs Print Preview

Figure 18 shows the history logs print preview that enables the administrator to view the report of the history logs before printing or downloading.

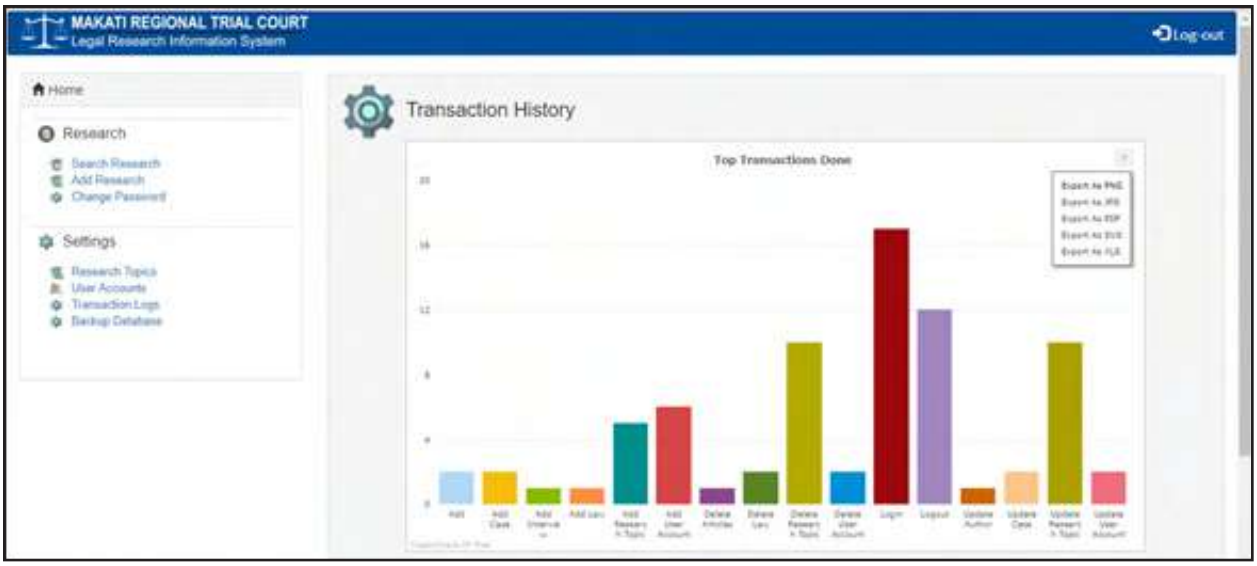

Figure 19. Transaction History Chart.

Figure 19 shows the graphical representation of the transactions being done in the system. This is very important for the administrator to monitor which transactions has the most executions done by the users. The chart can be exported via different file formats such as .png, .jpg, .pdf, .svg or .xls.

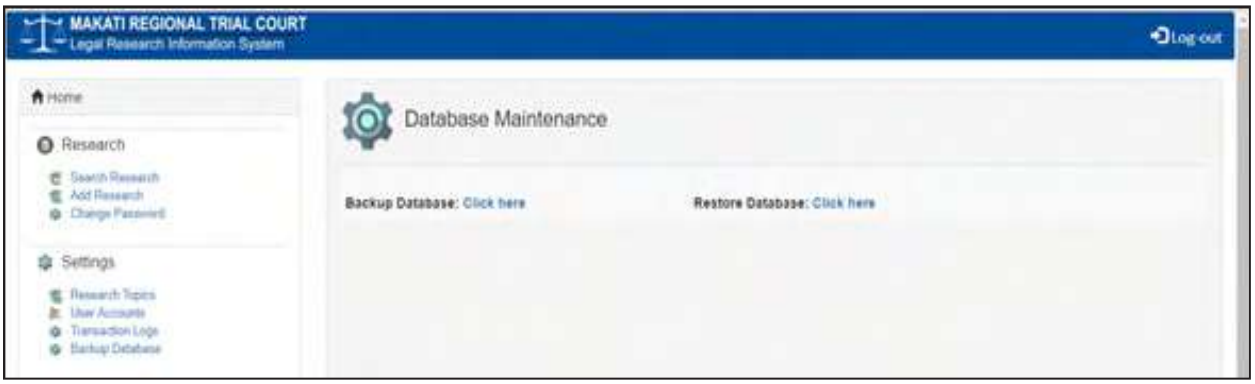

Figure 20. Database Maintenance Section

Figure 20 shows the database maintenance options for backup and restore. Upon clicking the back-up database link, a .zip file will be downloaded containing the database's SQL dump. Clicking at the Restore Database link will direct the user to the Database Restore page.

Testing Procedures

The researcher used manual testing for checking the quality of the developed information system. Manual Testing is a movement of finding out the blunders or distortions in an item program. In this methodology, the person who tests the framework assumes a basic part at last customer and guarantees that all the procedure of the product is executing appropriately. The analyzer physically performs test cases without utilizing any computerization instruments. He or she makes a test arrangement archive which characterizes the intensive and orderly technique to assess the product application. Experiments are relied upon to cover nearly the entire piece of the product framework. As manual testing incorporates a complete experiment, it is a dreary test.

Evaluation Procedures

Sources of Data

The sources of data used came from the survey questions and interviews gathered by the researcher during research from the Makati RTC legal researchers and selected IT individuals.

The scope of the study identifies the effectiveness of a developed legal research information system for the legal researchers in Makati Regional Trial Court. The respondents were divided into two (2) namely the End users represented by twenty (20) Makati Regional Trial Court Legal Researchers who used the application and was present during evaluation and the Expert users represented by selected five (5) IT Professionals who evaluated the software in terms of its effectiveness.

Expert users were chosen through expert sampling. Expert sampling from is a sort of purposive sampling technique that is utilized when a research needs to gather information from people that have a specific particular ability. Respondents can be few if every one of the members are masters in the point of the research, have adequate information and experience to give rich and legitimate information, inside a particular setting, keeping in mind the end goal to accomplish the examination destinations.

Having five (5) IT professionals as respondents are sufficient enough for the researcher to know the effectiveness of the developed software.

Instrumentation and Validation

The researcher used ISO 9126 in evaluating the developed system. This is in relation to the study made by AL-Badareen, Selamat, Jabar, & Din (2017) wherein they stated that the ISO 9126 is a piece of the ISO 9000 standard, which is the most essential standard for quality affirmation. In this model, the totality of programming item quality traits were ordered in a various leveled tree structure of attributes and sub qualities. The maximum level of this structure includes of the quality attributes and the least level comprises of the product quality criteria. The model determined six attributes including Usefulness, Reliability, Usability, Efficiency, Maintainability and Portability;

In addition, according to Sproge and Cevere (2012) in an international periodical journal, ISO 9126's external and internal quality models of programming items can be utilized as a part of the quality assessment of the Information Technology study programs of the higher education institution. For this reason, several attributes of programming item quality of this model have been implemented to the academe process.

Table 1
ISO 9126 Characteristics 2004 for Evaluating Web Applications Quality.

ISO 9126 Criteria
Functionality
Reliability
Usability
Efficiency
Maintainability
Portability

Data Gathering Procedure

During initial data gathering, the researcher made two survey questionnaires. One questionnaire was used to evaluate the Makati RTC legal researcher's acceptance to the developed system and another questionnaire was used for the selected IT professionals to evaluate the system's efficiency. Each questionnaire was created, presented, pretested by the researcher, with the help of the thesis adviser who also critiqued the draft.

The questionnaire consists of the following:

1. Evaluator's information
2. Evaluation questionnaires of the system
3. Recommendations

The software evaluation questionnaires were answered through a given criterion that uses a 4-point rating scale to indicate the extent to which if the respondents were satisfied or not. The scores gathered from the evaluation forms were used by the researcher to compute the project's level of effectiveness and user-acceptance.

Interviews were also engaged between the researcher and legal researchers from Makati Regional Trial Court to know inputs needed for the research and software development. Same procedure was done during the evaluation with selected IT professionals.

Table 2
4-Point Rating Scale

Assigned Points	Categorical Responses	Verbal Interpretations
4	Strongly Agree	Strongly Acceptable
3	Agree	Acceptable
2	Disagree	Unacceptable
1	Strongly Disagree	Strongly Unacceptable

Statistical Treatment of Data

The researcher used mean in identifying the acceptability of each criteria being evaluated.

Result

Test Result

Using Manual Test Procedure, the researcher together with the help of Mr. Jason Zabate, an IT Application Security Associate at Micro Focus, was able to test the system into (2) categories:

1. System and operational test – Wherein the researcher tested the overall software quality of the system's operation and security.
2. Equipment / hardware test – Wherein the researcher tested the performance of the system via different platform and equipment.

Table 3
Summary of Test Result

System Feature	Number of Issues	Remarks
Search Research	13	Issues Closed
Add Research	5	Issues Closed
Change Password	3	Issues Closed
Research Topics	4	Issues Closed
User Account	5	Issues Closed
Transaction Logs	8	Issues Closed
Backup Database	5	Issues Closed
Total	43	Issues Closed

Table 3 shows the summary of test result gathered during the development of the system. The Search Research feature gathered most of the number of issues that were fixed and closed by the developer. Some issues involved the sorting of the information, the print feature, the filtering of search variables and error-handling. The least feature of the system that had issues during development is the Change Password.

Evaluation Result

This part of the study shows the gathered evaluation results of the researcher's respondents.

Legal Researcher's Level of Acceptability of the System

This section shows the evaluation of the system's acceptability through the eyes of the twenty (20) Makati RTC legal researchers in terms of functionality, reliability, usability, efficiency, maintainability and portability.

Functionality

Table 4

Functionality of the System (Legal Researcher's Evaluation)

Question No.	Content	Mean	Interpretation
1.	All information entered are well recorded.	3.65	Strongly Acceptable
2.	All searched information is viewed properly.	3.50	Strongly Acceptable
3.	The system is secured.	3.20	Acceptable
4.	Document reports can be printed.	3.70	Strongly Acceptable
5.	Proper error information.	3.45	Strongly Acceptable
	Average	3.50	Strongly Acceptable

Legend: Strongly Agree (Strongly Acceptable) 3.25 - 4.00, Agree (Acceptable) 2.50 - 3.24, Disagree (Unacceptable) 1.75 - 2.49, Strongly Disagree (Strongly Unacceptable) 1.00 - 1.74

Table 4 displays the level of acceptability of the legal researcher's evaluation in terms of functionality. The print feature of the system gathered the highest mean of 3.70 while the security of the system had the lowest mean of 3.20. Overall, the average Mean obtained a score of 3.50 which was interpreted as *Strongly Acceptable.*

Reliability

Table 5

Reliability of the System (Legal Researcher's Evaluation)

Question No.	Content	Mean	Interpretation
1.	The system is possible to accomplish my task with no errors.	3.30	Strongly Acceptable
2.	There are enough warning messages to inform user regarding invalid entry.	3.55	Strongly Acceptable
3.	The system is free from errors.	3.20	Acceptable
4.	I can easily use this software.	3.45	Strongly Acceptable
5.	Information are presented in a well-presented manner.	3.65	Strongly Acceptable
	Average	3.43	Strongly Acceptable

Legend: Strongly Agree (Strongly Acceptable) 3.25 - 4.00, Agree (Acceptable) 2.50 - 3.24, Disagree (Unacceptable) 1.75 - 2.49, Strongly Disagree (Strongly Unacceptable) 1.00 - 1.74

Table 5 displays the level of acceptability of the legal researcher's evaluation in terms of reliability. The way information was presented in the system had the highest mean score of 3.65 while the lowest mean of 3.20 was given to the system being error-free. The average mean obtained a score of 3.43 which was interpreted as *Strongly Acceptable*.

Usability

Table 6

Usability of the System (Legal Researcher's Evaluation)

Question No.	Content	Mean	Interpretation
1.	All menus are easy to find	3.50	Strongly Acceptable
2.	I can easy use this software	3.40	Strongly Acceptable
3.	I can easily learn how to use it.	3.55	Strongly Acceptable
4.	The system response is fast.	3.50	Strongly Acceptable
5.	I can quickly process data using the system.	3.45	Strongly Acceptable
	Average	3.48	Strongly Acceptable

Legend: Strongly Agree (Strongly Acceptable) 3.25 - 4.00, Agree (Acceptable) 2.50 - 3.24, Disagree (Unacceptable) 1.75 - 2.49, Strongly Disagree (Strongly Unacceptable) 1.00 - 1.74

Table 6 shows the level of acceptability of the legal researcher's evaluation in terms of usability. The way of how easy the system can be learned had the highest mean score of 3.55 while the lowest mean of 3.40 was given to the system being usable. The average mean obtained a score of 3.48 which was interpreted as *Strongly Acceptable*.

Efficiency

Table 7

Efficiency of the System (Legal Researcher's Evaluation)

Question No.	Content	Mean	Interpretation
1.	The system responds quickly to the user.	3.55	Strongly Acceptable
2.	All data are sorted and displayed accordingly.	3.65	Strongly Acceptable
3.	The system has the means to edit or delete data if needed.	3.60	Strongly Acceptable
	Average	3.60	Strongly Acceptable

Legend: Strongly Agree (Strongly Acceptable) 3.25 - 4.00, Agree (Acceptable) 2.50 - 3.24, Disagree (Unacceptable) 1.75 - 2.49, Strongly Disagree (Strongly Unacceptable) 1.00 - 1.74

Table 7 shows the level of acceptability of the legal researcher's evaluation in terms of efficiency. The presentation of how the data were displayed and sorted had the highest mean score of 3.65 while the lowest mean of 3.55 was given to the speed of how information was loaded in the system. The average mean obtained a score of 3.60 which was interpreted as *Strongly Acceptable.*

Maintainability

Table 8

Maintainability of the System (Legal Researcher's Evaluation)

Question No.	Content	Mean	Interpretation
1.	Changes in data can be seen immediately.	3.70	Strongly Acceptable
2.	I can use the system in different gadgets.	3.70	Strongly Acceptable
3.	I can change my user account easily.	3.60	Strongly Acceptable
	Average	3.67	Strongly Acceptable

Legend: Strongly Agree (Strongly Acceptable) 3.25 - 4.00, Agree (Acceptable) 2.50 - 3.24, Disagree (Unacceptable) 1.75 - 2.49, Strongly Disagree (Strongly Unacceptable) 1.00 - 1.74

Table 8 shows the level of acceptability of the legal researcher's evaluation in terms of maintainability. The availability of the system in different gadgets and the availability of data had the highest mean score of 3.70 while the lowest mean of 3.60 was given to user account information management. The average mean obtained a score of 3.67 which was interpreted as *Strongly Acceptable.*

Portability

Table 9

Portability of the System (Legal Researcher's Evaluation)

Question No.	Content	Mean	Interpretation
1.	The system is lightweight to use.	3.50	Strongly Acceptable
2.	I can use this system in replacement to other software I use in maintaining my legal researches.	3.45	Strongly Acceptable
3.	I can use this system in operating system (windows, android, iOS)	3.50	Strongly Acceptable
4.	Each web pages and images are loaded quickly.	3.50	Strongly Acceptable
	Average	3.49	Strongly Acceptable

Legend: Strongly Agree (Strongly Acceptable) 3.25 - 4.00, Agree (Acceptable) 2.50 - 3.24, Disagree (Unacceptable) 1.75 - 2.49, Strongly Disagree (Strongly Unacceptable) 1.00 - 1.74

Table 9 shows the level of acceptability of the legal researcher's evaluation in terms of portability. The availability of the system in different operating system, the small size of the system, and the fast loading of images and of the webpage had the highest mean score of 3.50 while the lowest mean of 3.45 was given to the possibility that the legal researchers may want to use the system as replacement to other software they are using such as excel and MS word. The average mean obtained a score of 3.49 which was interpreted as *Strongly Acceptable.*

Summary

Table 10

Summary of System Acceptance (Legal Researcher's Evaluation)

Criteria	Mean	Interpretation	Rank
Functionality	3.50	Strongly Acceptable	3
Reliability	3.43	Strongly Acceptable	6
Usability	3.48	Strongly Acceptable	5
Efficiency	3.60	Strongly Acceptable	2
Maintainability	3.67	Strongly Acceptable	1
Portability	3.49	Strongly Acceptable	4
Overall average	3.53	Strongly Acceptable	

Legend: Strongly Agree (Strongly Acceptable) 3.25 - 4.00, Agree (Acceptable) 2.50 - 3.24, Disagree (Unacceptable) 1.75 - 2.49, Strongly Disagree (Strongly Unacceptable) 1.00 - 1.74

Table 10 shows the summary of the Legal Researcher's evaluation of the developed information system. The maintainability of the system ranked on top having the highest mean of 3.67. This was followed by the system's efficiency that has a mean of 3.60. The system's level of functionality is on the third rank having a mean of 3.50, portability is on the fourth rank with a mean score of 3.49 followed by usability with a mean of 3.48 and reliability with the mean of 3.43. The overall average mean obtained from all six criteria gained a mean score of 3.53 and standard deviation of 0.59 which was interpreted as *Strongly Acceptable*.

IT Professional's Level of Effectiveness of the System

This section shows the evaluation of the system's effectiveness through the scrutiny of selected five (5) IT experts in terms of functionality, reliability, usability, efficiency, maintainability, and portability.

Functionality

Table 11

Functionality of the System (IT Professional's Evaluation)

Question No.	Content	Mean	Interpretation
1.	The system can record information made by the user.	4.00	Strongly Acceptable
2.	The system has the ability to retrieve information.	3.60	Strongly Acceptable
3.	The system has the ability to secure data using password and username.	3.40	Strongly Acceptable
4.	The system can generate reports.	3.60	Strongly Acceptable
5.	The system is capable of handling errors.	3.20	Acceptable
	Average	3.56	Strongly Acceptable

Legend: Strongly Agree (Strongly Acceptable) 3.25 - 4.00, Agree (Acceptable) 2.50 - 3.24, Disagree (Unacceptable) 1.75 - 2.49, Strongly Disagree (Strongly Unacceptable) 1.00 - 1.74

Table 11 shows the IT Professional's evaluation of system effectiveness through its functionality. The feature of the system to save information accurately gained the highest mean of 4.00 while the capability of the system to handle errors has the lowest mean of 3.20. Overall, the functionality of the system gained a mark of 3.56 which was interpreted as *Strongly Acceptable*.

Reliability

Table 12

Reliability of the System (IT Professional's Evaluation)

Question No.	Content	Mean	Interpretation
1.	The system is free from bugs and runs smoothly without interruption	2.80	Acceptable
2.	Software informs users regarding invalid entry.	3.40	Strongly Acceptable
3.	The software can recover from error.	3.00	Acceptable
4.	The system is user-friendly.	4.00	Strongly Acceptable
5.	Information are organized and well presented.	3.60	Strongly Acceptable
	Average	3.36	Strongly Acceptable

Legend: Strongly Agree (Strongly Acceptable) 3.25 - 4.00, Agree (Acceptable) 2.50 - 3.24, Disagree (Unacceptable) 1.75 - 2.49, Strongly Disagree (Strongly Unacceptable) 1.00 - 1.74

Table 12 shows the IT Professional's evaluation of system effectiveness through its reliability. The user-friendliness of the system gained the highest mean of 4.00 while being error-free has the lowest mean of 2.80. Overall, the reliability of the system gained a mark of 3.36 which was interpreted as *Acceptable.*

Usability

Table 13

Usability of the System (IT Professional's Evaluation)

Question No.	Content	Mean	Interpretation
1.	Navigation on the different modules is easy.	3.60	Strongly Acceptable
2.	Features of the system can be easily determined by the users.	3.60	Strongly Acceptable
3.	The system can be used if the users don't have technical experience.	3.80	Strongly Acceptable
4.	The system responds instantly.	4.00	Strongly Acceptable
5.	The system processes data quickly.	3.80	Strongly Acceptable
	Average	3.76	Strongly Acceptable

Legend: Strongly Agree (Strongly Acceptable) 3.25 - 4.00, Agree (Acceptable) 2.50 - 3.24, Disagree (Unacceptable) 1.75 - 2.49, Strongly Disagree (Strongly Unacceptable) 1.00 - 1.74

Table 13 shows the IT Professional's evaluation of system effectiveness through its usability. The fast response of the system gained the highest mean of 4.00 while the system's navigation of modules and features has the lowest mean of 3.60. Overall, the usability of the system gained a mark of 3.76 which was interpreted as *Strongly Acceptable.*

Efficiency

Table 14

Efficiency of the System (IT Professional's Evaluation)

Question No.	Content	Mean	Interpretation
1.	The system instantly responds to command of the user.	3.40	Strongly Acceptable
2.	The system filter out precise information based on the criteria.	3.60	Strongly Acceptable
3.	The application can easily be modified.	3.80	Strongly Acceptable
	Average	3.60	Strongly Acceptable

Legend: Strongly Agree (Strongly Acceptable) 3.25 - 4.00, Agree (Acceptable) 2.50 - 3.24, Disagree (Unacceptable) 1.75 - 2.49, Strongly Disagree (Strongly Unacceptable) 1.00 - 1.74

Table 14 shows the IT Professional's evaluation of system effectiveness through its efficiency. The availability of the system to modify data gained the highest mean of 3.80 while the system's fast response to user requests has the lowest mean of 3.40. Overall, the efficiency of the system gained a mark of 3.60 which was interpreted as *Strongly Acceptable.*

Maintainability

Table 15

Maintainability of the System (IT Professional's Evaluation)

Question No.	Content	Mean	Interpretation
1.	The application can continue functioning if changes are made.	3.40	Strongly Acceptable
2.	The software can be moved from other platforms.	3.00	Acceptable
3.	The user accounts can be maintained easily.	3.60	Strongly Acceptable
	Average	3.33	Strongly Acceptable

Legend: Strongly Agree (Strongly Acceptable) 3.25 - 4.00, Agree (Acceptable) 2.50 - 3.24, Disagree (Unacceptable) 1.75 - 2.49, Strongly Disagree (Strongly Unacceptable) 1.00 - 1.74

Table 15 shows the IT Professional's evaluation of system effectiveness through its maintainability. The manageability of the user accounts gained the highest mean of 3.60 while the flexibility to move from different platforms has the lowest mean of 3.00. Overall, the maintainability of the system gained a mark of 3.33 which was interpreted as *Strongly Acceptable.*

Portability

Table 16

Portability of the System (IT Professional's Evaluation)

Question No.	Content	Mean	Interpretation
1.	The software complies with portability standards.	3.60	Strongly Acceptable
2.	The software can replace other software.	3.40	Strongly Acceptable
3.	The software can be used in different operating system.	3.40	Strongly Acceptable
4.	Images and webpages are loaded quickly.	3.60	Strongly Acceptable
	Average	3.50	Strongly Acceptable

Legend: Strongly Agree (Strongly Acceptable) 3.25 - 4.00, Agree (Acceptable) 2.50 - 3.24, Disagree (Unacceptable) 1.75 - 2.49, Strongly Disagree (Strongly Unacceptable) 1.00 - 1.74

Table 16 shows the IT Professional's evaluation of system effectiveness through its portability. The system's compliance to portability standards, its loading of images, and the webpage itself gained the highest mean of 3.60 while the likeness of the software to replace other software being used and its flexibility in different operating system has the lowest mean of 3.40. Overall, the portability of the system gained a mark of 3.50 which was interpreted as *Strongly Acceptable.*

Summary

Table 17**.** *Summary of System Effectiveness – IT Professional's Evaluation*

Criteria	Mean	Interpretation	Rank
Functionality	3.56	Strongly Acceptable	3
Reliability	3.36	Strongly Acceptable	5
Usability	3.76	Strongly Acceptable	1
Efficiency	3.60	Strongly Acceptable	2
Maintainability	3.33	Strongly Acceptable	6
Portability	3.50	Strongly Acceptable	4
Overall average	3.52	Strongly Acceptable	

Legend: Strongly Agree (Strongly Acceptable) 3.25 - 4.00, Agree (Acceptable) 2.50 - 3.24, Disagree (Unacceptable) 1.75 - 2.49, Strongly Disagree (Strongly Unacceptable) 1.00 - 1.74

Table 17 showcases the summary of the IT Professional's evaluation of the system's effectiveness. The criteria usability ranked at the top with a mean of 3.76 followed by the system's efficiency with the mean mark of 3.60. The functionality of the system came third in the rank with a mean of 3.56, the portability of the system ranked in the fourth place, the reliability of the software gained the fifth rank with a mean of 3.36 and the least is the system's maintainability which has a mean of 3.33. Overall, the average mean of all criteria is 3.52 which was interpreted as *Strongly Acceptable*.

Discussion

Findings

This study developed a web-based legal research information system for the Makati Regional Trial Court. Primary evaluation data were collected by distributing questionnaires to 25 respondents that was composed of 20 Makati RTC Legal Researchers and five (5) selected IT Professionals.

The Legal Researcher's evaluation of the developed information system in terms of its level of acceptability has resulted to the following: The ease of maintainability of the system ranked on top of the other criteria having the highest mean of 3.67. This was followed by the system's efficiency that has a mean of 3.60. The system's level of functionality is on the third rank having a mean of 3.50, portability is on the fourth rank with a mean score of 3.49 followed by usability with a mean of 3.48 and reliability with the mean of 3.43. The overall average mean obtained from all six criteria gained a mean score of 3.53 and standard deviation of 0.59 which was interpreted as *Strongly Acceptable*.

The summary of the IT Professional's evaluation of the system's effectiveness have given the following results: The criteria usability ranked at the top with a mean of 3.76 followed by the system's efficiency with the mean mark of 3.60. The functionality of the system came third in the rank with a mean of 3.56, the portability of the system ranked in the fourth place, the reliability of the software gained the fifth rank with a mean of 3.36 and the least is the system's maintainability which has a mean of 3.33. Overall, the average mean of all criteria is 3.52 which was interpreted as *Strongly Acceptable*.

Conclusion

In light of the first discussions and with regards to evaluation of the developed system, the accompanying conclusions are drawn:

1. The developer concluded that developing a legal information system to aid the legal research management of the Makati Regional Trial Court may help hasten the research and storage process of legal researches which was identified as one of the problems of legal researchers in their line of work.
2. Based from the evaluation summary of the legal researchers in Makati Regional Trial Court, the developed system was strongly acceptable and found useful to improve the research and archive methods of doing legal research.
3. The Legal Research Information System as evaluated by selected IT Professionals was strongly acceptable and was found functional, reliable, usable, efficient, maintainable, and portable to be used as a web-based information system for the legal researchers of Makati Regional Trial Court.

Recommendations

Based on the findings and conclusions, the following recommendations are offered:

1. Enhance the security of the developed system by providing an alphanumeric format in password. This is based from the lowest mean of 3.20 from the Security criteria of the system based from the legal researcher's evaluation.
2. Increase the system's found imperfections such as not displaying the logged user's name, login attempt record and others to make the system error-free. This is based from the lowest mean of 3.20 in the legal researcher's evaluation in the Reliability criteria of the system being error-free from the legal researcher's evaluation.
3. Improve the user-friendliness of the system. Providing at least a hint in the login screen may help the legal researchers remember their password if forgotten. This is based from the lowest mean of 3.40 in the Usability criteria based from the legal researcher's evaluation.
4. Improve the responsiveness of the system by improving its source code and offline support. Based from the Efficiency evaluation done by the legal researchers, the lowest mean of 3.55 was given by the legal researchers during evaluation as they have found that the system needs more responsiveness in providing print previews, research result and other output.
5. Boost the account maintenance section of the system by providing confirm password, change branch number, and other important fields. This is based from the lowest rank of 3.60 in the Maintainability criteria result from the legal researcher's evaluation.
6. Develop the overall functionality of the system for the legal researchers to accept the system as a replacement for the other software they are using in legal research. Based from the Portability criteria evaluated by the legal researchers, the evaluators found the system not sufficient enough as replacement to the system they are currently using. Giving it the lowest mean of 3.45.
7. Modify the error-handling features of the system like providing more message boxes, alerts and more in the system to avoid hanging or being irresponsive during transactions in case of error. This is based from the IT Professional's evaluation in the Functionality criteria for error-handling that has the lowest mark of 3.20.
8. Update the system's error recovery. This is based from the lowest mean given by the IT professionals in their evaluation for the Reliability criteria of the system with a mean of 3.00 for the system's error recovery.
9. Change the system navigation of the system by including more instructions, menu and shortcuts. This is because of the lowest mean of 3.60 is given by the IT professionals in their evaluation for the system's ease of use and navigation.
10. Boost the responsiveness of the system. As the speed of response of the system was marked with the IT experts with a mean of 3.40. Being the least, the researcher recommends enhancing the source codes of the website to make the web response of the system better.

11. Uplift the flexibility of the system in different operating system. This is based from the IT professional's evaluation of the flexibility of the system to other platform with the mean of 3.00. The lowest mean for this criterion.
12. For Portability, it is recommended to enhance the suppleness of the system in terms of its flexibility by improving its source code to be more applicable in different operating system and resolution. This is based from the IT professional's lowest mean.

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Knowledge, Attitude, and Practices on Waste Management of Small Business Enterprise

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Abstract

This study determined the knowledge, attitude, and practices on waste management of small business enterprise. Fifty business owners participated in the survey. The questionnaire consisted questions in which can determine the knowledge, attitude, and practices towards waste management. Descriptive statistics were used for data classification and simple percentages and frequency count. Findings revealed that although the business owners had knowledge on waste management, it was not sufficient. Greater percentage of the respondents has positive attitude towards waste management but the practice to waste management was inappropriate. Hence, it would be beneficial to initiate waste management programs as well as proper waste disposal procedures that could raise awareness.

Keywords: *waste management, knowledge, attitude, practices*

In 2001, the Republic Act 9003 which is entitled The Ecological Solid Waste Management Act became effective in which the government provides transportation, storage, processing, treatment, and disposal of solid waste. Solid waste is the useless, unwanted and discarded material resulting from day to day activities in the community (Mishra, 2014). Despite the law being implemented, poor solid waste management is still visible to various areas of the Philippines. This poses great threats on the country's environment and public health (Andrews, 2018). Waste generations by residents in the Philippines, especially in the urban areas, have accelerated recently due to fast pace industrialization, urbanization and population growth (Castillo, 2013). The persistent increase in human population and rapid industrialization has caused the continuing global problems on improper waste disposal (Atienza, 2008).

About 35,580 tons of garbage are generated every day in the Philippines. On the average, each person in the country produces about 0.5 kg and 0.3 kg of garbage every day in the urban and rural areas, respectively (Castillo, 2013). Business owners however, have a larger social responsibility depending on the nature of their business. Social responsibility comprises the desire and ability to willingly contribute to society, social group, and generally the welfare of others (Book, 2011). Having a good waste management practice does not only help in protecting the environment but is also beneficial by enhancing one's business' reputation. Sometimes, it can also be cost saving because there are materials that can be reused. On the other hand, lack of awareness to waste management can result to legal problems. Not only disposing garbage to inappropriate places can be harmful to customers but also to employees.

This study determined the knowledge, attitude, and practices on waste management of small business enterprises. Solid waste management may be defined as the discipline associated with the control of generation, storage, collection, transfer, processing, and disposal of solid waste (Mishra, 2014). Refuse management is the method of disposing waste in such a way that makes it less harmful (Adeyemo, 2015).

The study specifically aimed to answer the following:

1. What is the knowledge on waste management possessed by small business enterprise owners?
2. What is the attitude of small business enterprise owners towards waste management?
3. What kind of waste disposal practices do small business enterprise owners exhibit?

Methodology

In this study, selection of subjects was done by convenient sampling. Convenient sampling was achieved by distributing the questionnaires to 50 business owners who are living in Luzon, Philippines. The researcher aimed to obtain equal and diverse information considering the location and the nature of the business. Hence, the final sample was made up of 20 respondents coming from Quezon City, 15 respondents coming from the provinces of Cavite and Laguna, and 15 from other areas such as Makati City, Tarlac, Pampanga, etc. Twenty among those are food related business (eatery, bakery, etc.), 15 are service related (laundry, barber, etc.), and 15 are various businesses (apartment, gym, pet shop, etc.).

The instrument for collecting data for this study was a questionnaire. The questionnaire had four sections. Section A elicited information on the business name, owner's name, demographic attributes such as the gender, age, and educational attainment. Section B, C, and D sought information about knowledge, attitude, and practices of waste management in which the questions can be seen in Tables 1-3. It is a self-constructed closed-ended questionnaire.

The data collection took two weeks as the researcher had to travel to various cities and provinces in Luzon. The researcher had to guide few of the respondents or translate some questions into Tagalog to help them understand better and give the researcher adequate information. The questionnaire took 15 minutes to answer per respondent. However, 15 of the respondents coming from Tarlac and Pampanga were administered by a colleague and a relative as the survey questionnaire was answered through social media messaging. The researcher informed the respondents that the instrument being administered was for academic research purpose only and the responses from the respondents were all kept confidential.

The completed questionnaires were scored along the dimensions of knowledge, attitude, and practice. Descriptive statistics (frequency & percentages) was used for data classification.

Results and Discussion

The response rate was 100% (50 out of 50), out of which 22 (44%) are males, and 28 (56%) are females. Median age of the respondents is 39 with a range of 30-51 years old. The respondents with no formal education are 8%, 30% have primary education, 56% have secondary education, and 6% have tertiary education.

Table 1
Knowledge Towards Waste Management

	Yes	%	No	%
1. Waste management is collection and disposal of waste.	50	100%	0	0%
2. Waste management is keeping our environment clean.	50	100%	0	0%
3. Waste management is storage of household refuse in a bin.	50	100%	0	0%
4. Waste management is throwing of refuse anywhere (streets, open space, etc.)	10	20%	40	80%
5. Waste management is burning of refuse.	23	46%	27	54%
6. Waste management is burying of refuse.	32	64%	18	36%
7. Waste management is engaging the service of garbage collectors.	43	86%	7	14%
8. Refuse management is throwing of refuse in the river, gutter, or drains.	18	36%	32	64%
9. Diseases are caused by improper waste management	42	84%	8	16%

Table 1 shows that the respondents have a satisfactory knowledge in terms of waste management: not throwing of refuse anywhere (*e.g.,* streets, open space, etc.), acquiring the service of garbage collectors, not throwing of waste in the river, gutter, or drain, and diseases are caused by improper waste management are recognized by the respondents. However, some of the respondents have claimed that they would still resort to burning and burying of refuse.

Table 2
Attitude Towards Waste Management

	Yes	%	No	%
1. Dumping of waste in the drains, gutters, and open places is not bad.	16	32%	34	68%
2. Participating in cleaning of the surrounding is not necessary.	15	30%	35	70%
3. It is the responsibility of the government to collect wastes in the homes.	41	82%	9	18%
4. Open burning of refuse has no negative effect on health of human beings.	9	18%	41	82%
5. Engaging the services of the garbage collectors is a waste of money.	8	16%	42	84%
6. Open burning of refuse is a good method of refuse management.	12	24%	38	76%
7. Improper waste disposal can cause occurrence of disease.	40	80%	10	20%
8. Improper waste disposal can cause occurrence of fire and flood disaster.	28	56%	22	44%
9. Improper waste disposal can cause occurrence of environmental pollution.	33	66%	17	34%
10. Use of waste bins at home is a proper way of storing refuse.	40	80%	10	20%

Table 2 reveals that a greater percentage of the respondents has positive attitude towards waste management. Dumping of waste in drains, gutters, or open places is bad, cleaning the surrounding is necessary, the government should implement waste collection, burning of refuse has a negative effect on the health, it is necessary to acquire services from garbage collectors, burning of refuse is not a good method, improper waste disposal can cause disease, and usage of waste bins are proper ways of waste management. However, some of the respondents claimed that improper disposal cannot cause fire or flood disaster and improper waste disposal cannot cause environmental pollution.

Table 3
Practices Towards Waste Management

	Yes	%	No	%
1. I usually dispose my waste into the drains and gutters.	16	32%	34	68%
2. I dump my refuse in an open space.	20	40%	30	60%
3. I make use of waste bins.	49	98%	1	2%
4. I dispose my waste by the road sides and major streets.	18	36%	32	64%
5. I bury my refuse in pits.	11	22%	39	78%
6. I employ the services of waste management companies.	35	70%	15	30%
7. The waste services is provided by the government daily.	23	46%	27	54%
8. I segregate the biodegradable from non-biodegradable wastes.	16	32%	34	68%

Result of Table 3 observed the kind of waste management being practiced by the respondents. Majority of the respondents have the appropriate practices (*i.e.,* not disposing of waste in drains, gutters, or road sides, using waste bins, etc.). On the other hand, the result shows that some respondents still follow improper practices of waste management (*i.e.,* not segregating their biodegradable and non-biodegradable waste, burying of garbage in pits, dumping of refuse in an open space, etc.). Moreover, almost half of the respondents claimed that the government does not provide regular garbage services.

The study found out that majority of the business owners from different areas of Luzon, Philippines have satisfactory knowledge in terms of waste management. All of the respondents agreed to the first three items, indicating that they are knowledgeable about the term waste management; waste management is collection and disposal of waste, waste management is keeping our environment clean, and waste management is storage of household refuse in a bin. Interestingly, minimum amount of owners would still resort to

discarding their garbage in various locations and procedures: streets, open spaces, burning, burying, gutter, and etc. Majority of the respondents agreed that they engage to the services of garbage collector but in some areas, a few claimed that the garbage collectors do not visit their place daily. Many of the respondents (84%) agreed that various diseases are caused by improper waste management. However, some believe that causality of diseases can have a lot of factors: *e.g.,* pollution, the food we intake, etc.

This study revealed that business owners from different areas of Luzon, Philippines have a positive attitude towards waste management. Half of the respondents claimed that it is not good to dump wastes in the drains or gutters. However, (32%) claimed that it is not bad. This may be the fact that it may depend on the nature of the business, *e.g.,* the laundry shops have no choice but to throw the wash water to the drains. Seventy percent of the respondents claimed that it is beneficial to participate in the cleaning of the surrounding. However, there are still respondents who disagreed claiming that they should only be responsible for what is in front of their area. Majority of the owners claimed that it is the government's responsibility to collect the garbage from their homes as well as engagement to the services of the garbage collectors are beneficial in some ways for them. Majority of the respondents also claimed that burning of garbage does have bad side effects on the health of humans and that burning is not a good method. Environment-wise, half of the respondents agreed that improper waste disposal can cause fire or flood as well as occurrence of environmental pollution. However, some claimed that those are not the only causalities of fire and flood. Most of the owners agreed that improper waste disposal can cause disease especially to the businesses who are selling food since sanitization is a must. Most of the owners would resort to placing their garbage in a waste bin. For some, they would still resort to throwing their waste in the drainage (*e.g.,* laundry shops).

This study also examined the practices towards waste management among business owners. In summary, it shows that the practices of the owners were still inappropriate. Some (32%) would still resort to throwing their waste into the drainage and gutters. Forty percent would still throw their waste in any open spaces such as streets, road sides, etc. However, 98% claimed that it is beneficial for them to use waste bins. Twenty-two percent would still resort to burying their wastes. Not all owners would acquire the services of waste management companies provided by the government due to the claim that the garbage collectors do not visit their area daily. Thirty-two percent only agreed that they segregate the biodegradable from non-biodegradable wastes. Most of them (68%) claimed that segregation is time-consuming and it would all be mixed up when the garbage collectors take it from them anyway.

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Challenges of Human Resource Acquisition among Manufacturing Company in Cavite

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Abstract

Acquiring human capital is a time-consuming practice for corporations to hire the best employees, who perform competently and boost the company's productivity. However, getting suitable candidates for the available positions poses challenges. This study addresses challenges in acquiring human capital in manufacturing companies in Cavite, using Qualitative research method especially case study research design. The population of this study are human resource managers of different manufacturing companies in Cavite. Sampling was done by selecting five (5) Human Resource Managers. The study was conducted through audio-recorded interviews, document analysis and observations, and findings were analyzed through a coding method. The findings indicate that candidates who apply for vacant positions provide disconcerted information and/or were involved in politicking. Lack of qualification, change of attitudes, and syndrome of over qualification are challenges that lead to untrustworthiness of applicants. Conducting systematic background checks, yet flexible towards applicants, and using different recruitment methods such as outsourcing and Referral will help the organization overcome these challenges.

Keywords: *challenges, acquisition, human resource, employer, Cavite*

The word recruitment has been defined by different authors (Bernardin & Russell, 2013; DeNisi & Griffin, 2014; Zarate, 2014), in different ways, but all mean the same thing. All the definitions approve that recruitment is a process of actively seeking suitable candidates to fill a vacant position. As Lussier and Hendin (2018) argues, recruitment should be a reasonable pool for qualified candidates for the job. One of the best practices in Human Resource Management is hiring. The result of hiring determines the future of the organization, because the success or failure of the organization is dependent on internal factors, hence, employees (Bloom, 2014 & Rao, 2013). Therefore, the problem for organizations is to get suitable and qualified candidates to boost the productivity. There is no universal formula to solve this issue. Every organization tries different approaches and techniques to get a qualified candidate for their vacant positions. For the better future of the organization, the management should be skilled in selecting qualified employees for the job (Ivancevich & Konopaske, 2013).

Review of Literature

Employers globally face different challenges during acquisition of employees. Challenges may differ based on the structure of the company, size, culture, and laws of the country where the organization is located. This section explores different ideas and theories from experts on this topic.

Challenges and issues can vary based on the location of the company, business structure, model, and culture; for example, a country's history can be linked to an organization's current status and practices. A study done in Zimbabwe by Zinyemba (2014), found that the cost of advertising, misrepresentation of qualifications, nepotism, favoritism, geographical location of a company, change in business model of

the organization, and political interference create challenges in the recruitment and selection process. This lowers the trustworthiness of the employer towards the applicants. In cases like this, organizations should be strict on recruitment policy for the benefit of the organization.

According to Mavis Adu-Darkoh (2014), one major challenge, identified to be frequently facing recruitment and selection practices, is poor Human Resource (HR) planning and ineffective job analysis. Poor HR planning can lead to overstaffing in the organization, which is more difficult to for the company solve in the future. Before recruitment, the HR manager should make sure that there is a need of additional workers and define the responsibilities and duties for the post. Furthermore, a job analysis recommends the necessary and mandatory competence or knowledge in performing a particular job. A job analysis is the systematic process of describing and recording information about job behaviors, activities, and worker specifications (Jackson, Schuler, & Werner, 2009). This process will pave recruitment and attract talented candidates for the vacant job. At this point, workers understand expectations and what is required of them to accomplish their tasks.

Additionally, Mayhew (2009) highlights that the quality of employees hired depends on effective recruitment and selection strategy. The more the recruitment policy is strictly applied, the higher the quality of employees you get. However, this statement is not applicable in all cases, because humans are not perfect. Therefore, the policy should provide other options in case of uncontrollable situations. Managers should know that the process is not always as smooth as it is assumed to be. Employers face tangible problems, such as the cost of advertising job openings, and intangible obstacles, such as improving communication between recruiters and hiring managers.

Recruitment Approaches

As recruitment is time-consuming and expensive, the recruitment team focuses on the effectiveness of the recruitment methods and expense constraints. The challenge is finding qualified candidates with a minimum expense. Balancing the two requires extra effort and technique from the recruitment team. According to Lussier and Hendon (2018), budgetary constrain, policy constrain, organizational image, job characteristics, and realistic job previews drive organizations to pertain different recruitment approaches. Talking about the policy, candidates learn and read about the company they want to work for. The organization's policy can push the potential candidates to apply for the job, so policy makers should consider the recruitment perspective.

Also, the reputation of the organization has become a challenge, because the image that the company reflects in the market place plays a role on attracting potential candidates. An organization with a bad reputation acquires low chances to reach suitable candidates. One immense mistake, the recruitment team and many companies have made, is making the job sound better than reality (Robbins & Coutler, 2010). Differences are evident in what one likes and dislikes, but after the hiring period, employees face the reality of the job and influences them to leave the organization. To be effective in hiring close to perfect workers, it is crucial for the organization to develop a proper hiring process and policy. It is proven that there is a positive and significant correlation among selection, recruitment, and the organization's performance (Gamage, 2014; Hunt, 2010; Syed & Jamal, 2012). Sinha and Thaly (2013) noted different types of recruitment approaches: school recruitment, HR platforms and portals, recruitment agencies, the company website, referrals, and social media platforms. Organizations may use any of these approaches, that fits them best and minimize the cost of their recruitment process.

Some organizations love to blend two or even three approaches, depending on the goals they want to achieve. However, Vyas (2011) believes that organizations are looking for a way to shorten the process and minimize effort to recruit. One of the notorious major challenges is to identify competent employees (Atkinson & Storey,1994; Deshpande & Golhar, 1994), which is an outcome of prudent recruitment process. As recruitment requires time, effort, and money, organizations prefer to outsource certain processes of HR recruitment to agencies which saves time for the organization to focus on the managerial aspects of the company.

Outsourcing

Nowadays, outsourcing has become a culture adopted by organizations to lower their cost on human resource acquisition, and this practice is growing rapidly (Ordanin & Silvestri, 2008). Areiqat, Abdelhadi, and Al-Tarawneh (2010) argue that companies outsource to maximize resources at the HR side of the company. Job advertising, meeting, interviewing, and making phone calls are outsourced to prevent the company from failing in the operations that control and monitor employees; distraction to these operations can compromise the quality of work. In addition, outsourcing these HR activities are based on many reasons, like lowering HR costs, accessing HR expertise, finding qualified employees according to requirement, and aiming for managerial resources linked to strategic solutions (Abdul-Halim,Che-Ha, & Geare, 2009). On the other hand, Quartey (2013) disagrees that the process of outsourcing recruitment of HR activities have some negative implications related to the satisfaction of employee levels and morale.

Furthermore, low job satisfaction levels were reported as a disadvantage of outsourcing the functions of Human Resource (Dessler, 2008). Moreover, Cappello (2011) believes that outsourcing develops an apprehension to culture, disloyalty, anxiety, and mistrust which lead to job dissatisfaction. Hence, Nadda, Rafiq, and Tyagi (2017) point out that the core and non-core functions in the stages of recruitment can be distinguished to perform better outsourcing processes. In consideration to the various stages of recruitment, certain stages are crucial to recruit any candidate, which needs to be handled by internal HR functions. At any decision taken by the organization to acquire human resource, managers should balance recruitment methods based on the responsibilities of all positions, vision, mission, and goals of the organization.

It is known that acquisition of human resource is the most complicated task in the organization, because of its direct relationship to company productivity. Research have shown different technics to lower its costs, shorten the time of this operation, and resolve the challenges faced by manager during the recruitment process. However, there is not enough studies done on challenges faced by organizations during the acquisition of HR in manufacturing company the Philippines. Also, the setting, population, research design, and outcomes of this study make the importance of conducting such investigation.

This study identified the issues and challenges that employers in manufacturing company the Philippines face during employee acquisition, and what can be done for the management to address those issues and challenges. In addition, the specific objective was to develop a new recruitment methodology to over come these challenges. This paper presents findings of the study based on the qualitative research carried out in five organizations in Cavite, Philippines.

These are three research questions which guarded this study: What are the challenges employers in the Philippines encounter during the recruitment of employees? How are these challenges addressed by the organization? What is the new acquisition methodology to be adopted by these organizations?

Research Methodology

This study used qualitative research design, especially case study to explore challenges in acquiring human resource in manufacturing companies in Cavite and how the managers address it. Interviews were held among five human resources managers purposively selected from five (5) organizations whose head offices are located in Cavite. The study focuses on human resources practitioners in both private and public sectors.

Research Design

Case study was selected to be the best research design of this study because it understands deeply what this group of people (managers and directs) feels and faces while acquiring human capital, and addresses the research problem. The study is significant because it identifies the issues and challenges that managers encounter in trying to acquire qualified candidates for their vacant positions. This study also proposes a new technique to overcome these challenges.

Sampling

Participants in this study were carefully selected using non-probability sampling or purposive sampling. These participants were five HR practitioners, directors, and general managers from different industries and organizations who have exercised the HR position for at least 5 years within in the same company. These participants were preeminent from the population of the study because the acquisition of employees has been a practice used in their organizations to achieve company's objectives.

Research Setting

This study took place in Cavite, the province in the Philippines located on the southern shores of Manila Bay in the CALABARZON region of Luzon island. Situated just 21-kilometers south of the capital, it is one of the most industrialized and fastest growing provinces because of its close proximity to Metro Manila. In the setting of this study, participants were contacted, via telephone, for request, approval, and interview schedule. Upon the approval, the interview contract was guarded and signed for the confidentiality of the information shared during the interview. All the interviews took place in their different company locations, dependent on the arrangement made with each participant. In addition, participants acceded voluntarily to participate in the study given the rights of their privacy, anonymity, and confidentiality during and after the study. Open-ended questions were provided to accommodate the free-formatted perspectives related to the topic. Moreover, the instrument was validated by the advisor before it laid on the study.

Data Collection

Challenges were evident in the data collection period. The first step of data collection is requesting for interview, through a phone call. Upon approval, the researcher attained an approved request letter from the advisor and had the participants sign a contract for ethical review. In this study, data was collected using an audio recorder, observation, and document analysis. After every interview, data was saved as computer files. Finally, each audio-recording was transcribed for coding process.

Data Analysis

After the data has been gathered, systematic review was used to analyze it. The data was categorized with ordinary themes to avoid saturation of data. The themes are codes aggregated together to form a major idea in the database, they form a core element in qualitative data analysis. Like codes, themes have labels that typically consist of no more than two to four words (Creswell, 2012).

Throughout the data collection and data analysis, the findings and interpretation are assured to be truthful, therefore, a triangulation strategy was used. In determining the issues and challenges connected to employee acquisition, the research was extended beyond the interview with the participants. This ensures that the study is accurate since the information were drawn from multiple sources, individuals, and processes. In this way, it encourages the researcher to develop a report that is both accurate and credible (Creswell, 2012).

Ethical Consideration

Ethical consideration is one of the most important parts of a research. Dissertations may even be doomed to failure if this part is missing (Dudovskiy, 2016). In this study, the participants were assured that they are not subjected to harm in any way whatsoever. The respect for and dignity of research participants is a priority. Privacy and confidentiality was assured during the data collection and analysis. The participation in this study was voluntary, and participants had the right to withdraw from the study at any time and stage, if they wish to do so. In addition, the participants signed an informed consent of participation, proving sufficient information and assurance about taking part of the research without the exercise of any pressure.

Research Findings

Five challenges encountered by employees during the acquisition of human capital in the Philippines were identified.

Disconcerted Information

Disconcerted information is most likely to be provided by some candidates. During the interview stage, candidates will do their best to sell themselves, proving their strengths and skills. Hence, the negative aspect about themselves is minimized. In this situation, candidates may provide wrong information or critical aspect about their past work accomplishment for them to be hired (Rao, 2014).

Change of Attitude

When candidates are hired, they show their true personality. This is the time companies discover the candidates' motivation factors to be in the organization. After the hiring process, candidates reveal whether they are suitable for the company or not. In many cases, the recruitment team exposes only the positive aspects of the company to the candidate; after hiring, the newly-hired employees face the true situation of the organization. According to Saari and Judge (2004), this stage shows that there is a major cause of attitude changes which affect employees' behavior positively and/or negatively. This attitude change should be taken into consideration by the recruitment team to avoid future challenges with choosing candidates.

Syndrome of Over qualification

Syndrome of over qualification occurs when people are overqualified for the job specifications provided. In specific sectors, this syndrome is observed. For instance, a company may be looking for a cashier, but some candidates with a master's degree will want to apply for the post. Kulkarni, Lengnick-Hall, and Martinez (2015) report that hiring managers are willing to interview and hire individuals, who either have exceeding education and experience or insufficient education but possess sufficient compensatory experience.

Lack of Qualification

Lack of qualification usually occurs for specific organizations and tasks. This situation occurs often in knowledge intensive industries. Companies are forced to foreign recruiting because of lack of skilled candidates in their local areas, which can be costly. The cost of international recruitment and regulations push companies to train their local candidates. Elemia (2016) presented a convincing argument in favor of lack of qualification that "in the Philippines, we do not lack jobs, but we lack graduates who match the job" (p.1).

Politicking

Recruitment teams receive habitual recommendations from influential people, such as government officials and publicly influential professionals, for candidates who tend to be family members, friends, or close-knitted networks. This habit abolishes the fairness of selecting with other candidates and the work of the recruitment team. Some of these recommended candidates may not be qualified for the vacant position, but because of the recommendation, HR processes may change in consideration of the recommendation. "If the manager has to accept the recommendation, what is the point of sitting here and making the recruitment policy?" asked by one of the participants. Recommendations should be accepted, but all candidates should still go through the same selection process.

To overcome these challenges, organizations intensify training, which impacts the training budget and time on background check on the candidate by consulting the previous employer and referrals. However, these techniques seem to be ineffective for the manufacturing companies in Cavite to overcome these challenges. This study recommends solution which can help to tackle the problem.

Conclusion

The findings indicate the challenges faced by organizations when acquiring human resource in the Philippines (Manila). The study revealed that the challenges are disconcerted information, change of attitude, lack of qualification, syndrome of over qualification, and candidate recommendation. Conducting systematic background checks, yet flexible towards applicants, and using different recruitment approaches help organizations overcome these challenges. It is necessary to carry out follow-up studies focusing on the effectiveness, influence, and challenges of using specific recruitment approaches, such as outsourcing, school recruitment, headhunting, and referencing.

Recommendations

The following recommendations were made base on the the result of the study. Manufacturing companies in Cavite should use new techniques to attract talented employee such as referrals and outsourcing. Referral is one of the better options because it simplifies the process. Also, when someone refers a former colleague or friend for a job, his or her credibility is on the line. Thus, employees will be careful in recommending people for employment unless they are confident that these people are good candidates. This provides a good screening for a company in deciding whom to hire. On the other hand, outsourcing helps businesses minimize risk, reduces cost of maintaining nonrevenue generating back office expenses, creates great efficiency with the HR system, and helps businesses to manage employee performance and development.

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Relationship of Knowledge Management and Organizational Culture on Total Quality Management in a Health Facility

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Abstract

There is the quest for quality care of patients in the hospital globally. Management of hospitals depends on the knowledge of its workforce for total quality management (TQM) to access organizations' success. This study examined the relationship between knowledge management, organizational culture, and total quality management and if knowledge management and organizational culture are predictors of TQM. Finally, if there is a significant difference on TQM when considering workers sex and age. The research design was descriptive-correlation using *t*-test, analysis of variance (ANOVA), and Pearson correlation. One hundred hospital workers were conveniently selected to answer a self-constructed questionnaire. The study revealed that knowledge management and organizational culture have positive correlation on total quality management in a health facility. Sex and age of the health workers do not differ on TQM.

Keywords: *knowledge management, organizational culture, total quality management*

Work and efficiency has been the tool that every organization seeks to achieve to enhance performance. This is because of how globally competitive quality has become in terms of management. Total quality management (TQM) emphasizes on how employees relates ethically, accepting and embracing who they are in a working environment and realizing the diversities among the workforce to evict professionalism and the qualities among the employees (Madar, 2015). There is the quest for quality in healthcare organizations and this can be realized if employees embrace TQM in the workplace. Managers rely on total quality in terms of management to access organizations' success. The leadership of a hospital trust that when the workforce are properly committed to their duty, it will reflect on organizational outcomes.

The world has witnessed quality as an aspect of management matters, and this has caught much attention. According to Melsa(n.d), companies that have adopted quality management practices have experienced an overall improvement in corporate performance including better employee relations, higher productivity, greater customer satisfaction, increased market share, and improved profitability. It was noted that many different kinds of companies benefited from putting specific TQM practices in place; however, none of these companies reaped those benefits immediately. Also, Al-Damen (2017) did a study in Jordan on the impact of TQM implementation on organizational performance. The findings showed that TQM has a positive significance on organizational performance, but suggested that the company should continue its pursuit to increase its employees' empowerment and participation and more importantly on values of implementation.

A further study by Abuzaid (2015) examined TQM and realized that TQM practices have a positive impact on strategic liveliness, and it was noted that the highest impact was for the customer orientation and supplier management due to the challenge of the need to have a high standard of TQM in organizations; how employees manage the knowledge they have acquired comes into play. How knowledge is put to use to reflect results is asserted by Raudeliuniene, Davidavičienė, and Jakubavičius (2018) where they asserted

that knowledge management is an effective tool in increasing the effectiveness of organizations in the context of globalization and transformations. This standard aimed to ensure that high-quality of management is attained in the healthcare facility where health practitioners attend to their duties day by day. Another element that can aid TQM is the organizational culture that pertains in the hospital. In every organization, culture is very important. Culture determines how well employees' knowledge is used and managed and organizational culture is to influence employees' choices, decisions as well as relationships (Arfin, 2015; Maseko, 2017).

Moreover, all theories are situation, based on the underlying set of values, beliefs, and assumptions that frame how an individual perceive the world, including assumptions about desirable results for an array of circumstance (Superville, 2015, p.24). Based on Arfin, 2015, Maseko, 2017, and Superville, 2015, it can be deduced that employees' ability to relate to themselves in organization is based on how knowledge and culture is utilized.

According to Al-Damen (2017), organizations hardly pursue the values that enhance its implementation that could increase employee's empowerment and participation. It is as a result of this gap of values of implementation, leading to less empowerment of employees and participation. This study addressed the implementation of TQM in a health facility. This research sought to answer the following questions. Is there a significant relationship between:

1. Knowledge management and total quality management?
2. Is there a significant relationship between organizational culture and total quality management?
3. Is there a significant difference between age and total quality management?
4. Is there a significant difference between the sex of the respondents and total quality management?
5. Do knowledge management, and organizational culture predict total quality management?

Knowledge Management. Knowledge management is a process where organizations produce value from intellectual and knowledge-based assets, that is processes of identifying, distributing, acquiring and maintaining knowledge that is important to the organization. Harri and Sari (2018) explained knowledge management as a component that the organization tries to identify, document, organize, collect, and disseminate its lessons and practices through organizational strategy. Managing useful experiences of wisdom in a certain cause and applying it in a correct way that is systematic management of knowledge assets or Systematic process of collecting knowledge and connecting people to it so they can act effectively.

STAP (2018) defines knowledge management as the systematic management of an organization's cumulative knowledge and experience, and also the systematic processes, or range of practices, used by organizations to identify, capture, store, create, update, represent, and distribute knowledge for use. Grayson (2018) stated that knowledge management is a group of systematic approaches to assist information and data flow to and between the correct people at the right time in order that they will act with efficiency and effectiveness to make price for the organization. Moreover, Koenig (2018) stated that knowledge management could be a discipline that promotes an integrated approach to characteristic, capturing, evaluating, retrieving, and sharing all of an enterprise's data assets.

Notwithstanding, Raudeliuniene, Vida, & Jakubavičius (2018) define knowledge management in the context of globalization and transformations; the knowledge potential management is an effective tool for increasing the effectiveness of organizations. Rouse (2019) stated that knowledge management is the name of an idea in which an enterprise consciously and comprehensively gathers, organizes, shares, and analyzes its knowledge in terms of resources, documents, and other people skills.

Serpa (2016) sees organizational culture as a shared way of being, people acting and thinking in a collective and coordinated way with reciprocal expectations. Another author defines organizational culture as the set of shared values, norms and beliefs that impact the way employees consider as well as feel and behave in the workplace (Agwu, 2014). This triggers the concept of Becerra-Fernandez and Sabherwal (2015) stating that the rate at which employees are sort for is even higher than before and this leaves the organizations with the significant challenge of retaining their intellectual capital. The most effective way

that can improve organizational culture is for it to act in a silent mood and aid people to respond instinctively (Groysberg, Lee, Price, & Cheng, 2018). Also, collaborative partnerships have the potential to bring together the strength of community-based leaders with the research strength of hospital professionals, and evaluate culturally appropriate health promotion programs that incorporate the strength of all partners at all levels of the planning process (Perez & Luquis, 2014).

Creativity is a contributor towards organizational success thereby leadership, as well as management styles, affect creative success because of their direct impact on employees (Kamal, Imran, & Rabbani, 2014). In addition to how creativity can help organizational performance, there is the need to be goal-aware as a manager. An element of self-awareness is useful as is a clear understanding of key relationship and attentiveness to wider organizational context (Mackian & Simons, 2013).

The competencies needed to be a quality management practitioner leads to the fundamental question which is rarely asked and barely answered within quality management research (Sharma, 2017). According to Kenton (2019), TQM is the continual eliminating or reducing and detecting of errors in streamlining supply chain management, manufacturing, improving the customer experience, and ensuring that workers are up to speed with training.

Uduk (2016) stated that TQM is a comprehensive system for achieving continuous improvement in customer satisfaction. It is a philosophy of total integration of the business to attain the desired result. More so, Ana (2016) stated that TQM is a management strategy that aims to incorporate quality altogether processes of the enterprise.

Vliet (2017) reiterates that TQM is an in depth and structured organization management approach that focuses on continuous quality improvement of products and services by using continuous feedback. For Pearson (2015), TQM is an approach to quality in which every person in an organization is tasked with contributing to process, product, and service improvement and quality control.

Nordquist (2019) relayed that communication is the process of sending and receiving messages through the voice of words or without it, may be as verbal or nonverbal and with the oral communication. According to Entrepreneur Handbook (2018), communication comes from the Latin word which meant "to share". Yet, it is the sharing of information between different individual. Communication may be ideas, concept, imaginations, behavior through verbal or non verbal communication.

Moga (2017) stated that teamwork is the process of working together as collaboratively with a group of people in order to achieve to the same particular goal. Teamwork means that people will try to cooperate, use their own skills, and provide constrictive with other in the same dimension of the goal.

According to the TAFE (n.d), recognition is the method by which someone can demonstrate the abilities or competencies tutored during a unit or qualification. It is the popularity of the abilities and knowledge someone has gained through previous studies, work, and life normally.

Gamelearn (2016) mentioned that leadership is somethings that a man has to lead a group of people. A leader is the one who is capable of having a vision, motivation of others, service, empathy, creativity, management, and teambuilding. Leadership is the art of motivating a group of people to be able to work better into achieving the particular goals (Ward, 2019). In business setting, this can mean directing workers and colleagues with a strategy to meet the company's needs.

Another study done by Jimenez-Espin, Jimenez-Jimenez, and Martinez-Costa (2013) at the university of Murcia confirmed the claims. The study was on organizational culture on TQM with emphasis on empirical evidence about organizational culture that fits best with TQM system. The empirical study of 451 companies were analyzed using hierarchical linear regression method, and literature review was used as a measure. The empirical evidence was found for the positive impact of adhocratic culture on TQM. On the contrary, to expectations, clan culture has no significant effect on TQM. Also, a mixed culture or culture for quality is the most appropriate for a TQM system. Finally, it was found that TQM has a significant positive effect on corporate performance.

According to Lapina, Kairisa, and Aramina (2015), studying the role of organizational culture on TQM of a university, aimed at evaluating the theoretical aspects of organizational culture and quality man-

agement, and their interrelated and impact on continuous improvement and development of the university. Assessment instrument (OCAI) modified version was used to measure the organizational culture of the university. The study resulted that in creating characteristics of organizational culture and analysis of the factors that affect the development of organizational culture, it was concluded that university organizational culture makes way for total quality management and directly connected to development.

A study from Adnalin, Rahayu, Daulay, Sebayang, and Wakhyuni (2018) in Indonesia on the effects of Islamic work ethics, organizational culture and total quality management towards changes in organizational attitudes with organizational commitment as an intervening variable. The purpose of the study was to examine the short term objective of analyzing the effect of the application of Islamic work ethics, organizational culture, and TQM on the commitment and changes in organizational attitudes. The study made use of the cluster random sampling method with the population from the Universitas Pembangunan Panca Budi in Indonesia. Descriptive statistics and path analysis was used to explain the data. The result was that the variables Islamic work ethics, organizational culture, and TQM have a positive and significant effect on organizational commitment and changes in organizational attitudes.

Alshatnawi and Ghani (2018) conducted a study in Jordan with the general purpose to investigate the perceptions of higher education institutions' members regarding the application of TQM and knowledge management (KM) principles to their universities in Jordan. Also the study observed the extent to which these faculty members vary in their perceptions and the extent to which variances in perceptions were influenced by educational level, rank, and years of experience. The sample consisted of 72 faculty members from four education colleges in Jordan. They completed a 31-item questionnaire covering five dimensions of TQM and five dimensions of KM and one dimension of Organizational Performance. This study provides some insights in the resource based view. It reveals that the resources in an organization may be hierarchical. KM may be one step closer to organizational performance in the paths leading from TQM to organizational performance. KM may be one step closer to organizational performance in the paths leading from TQM to organizational performance. This study contributes to the understanding of the relationship between TQM, KM, and organizational performance.

Honarpour, Jusoh, and Nor (2012) proposed a framework in their study that shows how TQM and KM are reciprocally related to each other and how this affinity can impact innovation. Looking at it from the methodological perspective, they applied joint variance analysis method where it can demonstrate correlation among independent variables and the effect of them on innovation. The study found out that KM has been recognized as an enabler that can deploy innovation by creating, storing, transferring, and applying knowledge, while on the other hand, the implementation of TQM practices are addressed as one of the important factors that can influence innovation in a positive way.

Methodology

Quantitative survey research was employed in this study. The research design is correlational. The data was collected from a health facility in the Philippines. The research respondents were made of 100 out of the 600 workers in the facility. The survey questionnaires were grouped into three categories; the internal consistency test for knowledge management had 7 items with a Cronbach's alpha of 0.775. TQM questionnaires had .812 Cronbach alpha for eight items. lastly, organizational culture, had eight items with .775 Cronbach alpha. Likert scale was used for the questionnaires and on the variables the respondents rated it from 1 – 4 whereas 1 = *strongly disagree*, 2 = *disagree*, 3 = *agree*, 4 = *strongly agree*. Scoring system with scaled response and verbal interpretation were used. Where *very high* as verbal interpretation corresponding with scaled response of 4 = *strongly agree* and scale average weight interval of 3.2-4.0, *high* corresponding with 3 = *agree* scaled response and scale average weight interval of 2.4-3.2, *low* corresponding with 2 = *disagree* scaled response and scale average weight interval of 1.6-2.4 and *very low*, corresponding with scaled response 1= *strongly disagree* and scale average weight interval of 1.0-1.6.

Table 1
Scoring Systems for Total Quality Management and Knowledge Management

Numeric Scale	Scale Average Weight	Scaled Responses	Verbal Interpretations
4	3.2-4.0	Strongly Agree	Very High
3	2.4-3.2	Agree	High
2	1.6-2.4	Disagree	Low
1	1.0-1.6	Strongly Disagree	Very Low

Table 2
Scoring System for Organization Culture

Numeric Scale	Scale Average Weight	Scaled Responses
4	3.2-4.0	Strongly Agree
3	2.4-3.2	Agree
2	1.6-2.4	Disagree
1	1.0-1.6	Strongly Disagree

The research questionnaires were conveniently distributed to the respondents in the health facility. The questionnaire had three sections, and they were all tested for their internal consistency. The research questions were answered using SPSS 22. Question one was answered by using correlation to find the significant relationships among variables, KM , organizational culture, and TQM. For question two, *t*-test was used to find the significant difference in terms of sex of the respondents to TQM. Question number three, ANOVA was used to find the significant difference in terms of the ages of the respondents to total quality management. Question four - linear regression was used to find the predictions among knowledge management and organizational culture and total quality management. The below shows null hypotheses developed to foretell the various relationships between variables:

1. There is no significant relationship between
   a. knowledge management and total quality management?
   b. organizational culture and total quality management?
2. There is no significant difference between age and total quality management?
3. There is no significant difference between sex and total quality management?
4. Knowledge management, and organizational culture do not predict the relationship between total quality management

Results and Discussion

The results indicate that there is a large positive significant relationship between knowledge management and total quality management at ($F = .757$, $p = .000$) when $p < 0.01$. It means that the null hypothesis is rejected. This findings is supported by Alshatnawi and Ghani, (2018). The result of their study revealed that there is a significant relationship between KM and TQM, Question four sub-question two has the null hypothesis that states that there is no significant relationship between organizational culture and TQM of employees. The study shows that there is a large positive significant relationship between organizational culture and TQM at ($F = .755$, $p = .000$) when $p < 0.01$. The null hypothesis is therefore rejected. This study is supported by Lapina, Kairisa, and Aramina (2015) revealing that in creating characteristics of organizational culture and analysis of the factors that affect the development of organizational culture, it was concluded that university organizational culture makes way for TQM and directly connected to development.

Table 6
Correlations

		Total quality management	Organizational culture	Knowledge management
Total quality management	Pearson Correlation	1	.755**	.757**
	Sig. (2-tailed)		.000	.000
	N	100	100	100
Organizational culture	Pearson Correlation	.755**	1	.703**
	Sig. (2-tailed)	.000		.000
	N	100	100	100
Knowledge management	Pearson Correlation	.757**	.703**	1
	Sig. (2-tailed)	.000	.000	
	N	100	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

Table 7 shows that there is no significant difference in TQM when sex is considered ($F = .649$, $p = .081$) when $p < .05$. The study accepts the null hypothesis that states there is no significant difference on TQM in terms of sex.

Table 7
TQM in Terms of Sex

		Levene's		*t*-test for Equality of Means						
		F	Sig.	*t*	*df*	Sig. (2-tailed)	Mean Difference	Std. Error	95% Lower	95% Upper
Total quality management	Equal variances assumed	3.116	.081	-.456	98	.649	-.0384	.0843	-.2058	.1289
	Equal variances not assumed			-.540	72.847	.591	-.384	.0712	-.1804	.1034

The fourth question that states that is there is a significant difference between age and total quality management, according the study in terms of age of the respondents to total quality management, there is no significant difference F (2.97)=.559, $p = .574$. This results accepts the null hypothesis that state that there is no significant difference between age and TQM of the employees.

Table 8
ANOVA

Total Quality Management					
	Sum of Squares	*df*	Mean Square	*F*	Sig.
Between Groups	.160	2	.080	.559	.574
Within Groups	13.918	97	.143		
Total	14.078	99			

Lastly, the seventh question seeks to find out that do Knowledge management, and organizational culture predict the relationship between total quality management. The results as shown in table. 8, below shows both knowledge management and organizational predicts total quality management. Knowledge management predicted 57.3% of total quality management and organizational culture also predicted 9.9% and in total both predicted total quality management at 67. 2%. This reveals that other factors or variables could help explain total quality management which this study could not consider. The model equation for the study is Total quality management = 0.081+ ..426knowledge management +0. 496organizational culture. This result is backed by Alshatnawi, and Ghani, (2018) that the resources in an organization may be hierarchical. knowledge management may be one step closer to organizational performance in the paths leading from total quality management to organizational performance. Knowledge management may be one step closer to organizational performance in the paths leading from total quality management to organizational performance.

Table 9
Predictors of Total Quality Management

	R2	B	S.E	Beta	Sig.
Constant		0.081	0.367	0.76	
Knowledge Management	0.573	0.426	5.472	0.45	0.000
Organizational Culture	0.099	0.496	5.407	0.44	0.000
	R2=.6720	R=.820	F=99.354		P= .000

Conclusion and Recommendation

The study has revealed that KM and organizational culture has positive impact on TQM. The health workers admit that higher KM supports TQM. When it comes to considering the demographics of the health workers to TQM, both sex and age did not give any difference in its relationship to TQM. Therefore, TQM is essential to the attainment of the satisfaction of the costumers, when knowledge is managed well in the hospital.

The first recommendation according to this study is that knowledge management is an important asset that has helped the hospital to improve its workers in applying TQM and therefore any organization that is aspiring to excel should make use of it to embrace effective productivity. The study also reveals that much attention should be given to organizational culture. KM and organizational culture predicted a large positive relationship to TQM, but could not fully explain TQM, which requires further investigation in future research using other variables.

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Student Satisfaction Survey at ABC State University

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Abstract

Customer satisfaction survey is an indispensable tool to gauge the performance of an organization on the perspective of its stakeholders. Results of the survey serve as the basis for continuous improvement of quality services. Lack of fully documented study on student satisfaction at ABC University prompted the proponent to pursue the paper. This descriptive research utilized a standardized customer satisfaction survey questionnaire. Two hundred two graduating students from six colleges were used as the respondents of the study. Results revealed that the respondents are generally satisfied with the services of the University in terms of teaching and learning modes; academic conditions and provisions; study experience; acquired competencies; and extent of contribution of the university to acquire competencies. Moreover, there is a significant difference on the satisfaction ratings of the services of the University when the respondents were grouped according to colleges. The areas needing improvement as assessed by the respondents were the use of written outputs and technology-aided instruction as teaching and learning mode, the provision of recreational spaces/student center and clean toilets, the involvement of students in extension activities, improvement of the students, and oral communication and ICT skills. It is hereby recommended that faculty members consider the use of technology-aided instruction and enforce the use of oral and written communications as teaching and learning medium; the administration consider the inclusion of additional recreational spaces and the establishment of student center in the campus; the program chairpersons employ the use of student volunteers for extension programs, activities, and projects; if the budget warrants, the administration may consider adding more computer and internet laboratories that will accommodate the needs of the students; and conduct similar studies using different service quality models.

Keywords: *student satisfaction survey, customer satisfaction, quality management*

Customer service is a series of activities designed to enhance the level of customer satisfaction—that is, the feeling that a product or service has met the customer's expectation. Customer service is performed in most of our educational institutions today and there are even departments dedicated to providing student services. However, real customer service must involve more than a department or a handful of individuals. Providing a true service-centered environment is everyone's job. That emphasis must start at the top and the inspiration for delivering has to be more than lip service. Some would argue that higher education has focused less on the process of good customer service and more on the final product of producing educated graduates. If students fulfill all of the course requirements set before them, the institution awards them a diploma in recognition of their accomplishment. Boyd (2012) argued

that colleges and universities have not been as concerned about whether students felt satisfied while completing their degree requirements. Institutions tend to emphasize instead that students need to work hard while at college to complete their degrees.

Several studies (Badri, Makki, Attia, & Al-Share, 2010; Kisida & Wolf, 2015; Petrescu & Popa, 2013) measure customer satisfaction of the services offered by their respective academic institutions. Their study provided a measure of service quality and determines the level of satisfaction. Their study also revealed that improving the performance of quality components of school's services would help boost trust in school management, as well as retain students.

Though the subject University regularly conducts customer satisfaction survey, there is no documented formal paper that will be used as basis for continuous service improvement. It is in this premise that the proponent deemed it necessary to analyze the survey data and propose recommendations.

The study is aimed to determine the level of satisfaction of graduating students at ABC University, specifically, it attempts to: Assess the services of the university in terms of (a) teaching and learning modes, (b) academic conditions and provisions, (c) study experience, (d) acquired competencies and, (e) extent of contribution of the university to acquire competencies; determine if there is a significant difference on student ratings when grouped according to college and; identify areas needing improvement on service offerings.

Customer focus might be the most important principle of quality management. The customer is the ultimate judge of the quality of goods and services. Perception of value and satisfaction are influenced by many factors throughout the customer's overall purchase, ownership, and service experiences.

Customer satisfaction is the overall impression of customer about the supplier and the products and services delivered by the supplier. All the functional activities like customer response, direct product and maintenance services, complaint management etc. are the factors that rely on how skillful and trained the internal and human resources of the supplier are. The second category is regarding all the products and services. This depends on the capability of supplier to how to nurture the products and service efficiently and how skilled the employees are. It's all about how the skills are implemented to demonstrate engineering, re-engineering, and technological aspects of the products and services. The quality and efficaciousness of the products are also an important factor that enables compatible and hassle free functions and operations. This bears to lower maintenance and higher life of the product which is highly admired by the customers.

If the product is having some problem or compatibility issues and requires frequent maintenance and support then the customers could get irritated and possibilities of sudden divert is there which lead to supplier's financial loss. In the same way, if the product is expecting huge amount of financial and manual resources then customers could get a feeling of dissatisfaction and worry. However, if these aspects are handled efficiently by giving class services and dealing with complaints effectively then dissatisfied customers could be converted into long-time satisfied customers and retaining them becomes easy.

It is practically impossible for the supplier to provide all the above explained features. There are always some positive as well as negative features in products and services which could lead to delight or irritation among customers. The final opinion is the sum of overall experiences which a customer perceives. However, it is also true that the more positive are the aspects, the more the customer is satisfied. Hence, the aim of the supplier should always be to enhance these positive feelings among all the customers to increase customer satisfaction. The supplier must identify how to enhance these positive aspects to maximum level by analyzing the customer's data and information using CRM system. The individual liking and disliking of customers differ from customer to customer. It is hence required to target a customer and identify individual requirement to make them satisfied.

Having discussed the above factors that affect customer satisfaction we can say that the higher the satisfaction level, the higher is the sentimental attachment of customers with the specific brand of product and also with the supplier. This helps in making a strong and healthy customer-supplier bonding. This bonding forces the customer to be tied up with that particular supplier and chances of defection are very less.

Hence, customer satisfaction is very important panorama that every supplier should focus on to establish a renounced position in the global market and enhance business and profit (Juneja, Factors Affecting Customer Satisfaction, 2018).

Quality management is the act of overseeing all activities and tasks needed to maintain a desired level of excellence. This includes the determination of a quality policy, creating and implementing quality planning and assurance, and quality control and quality improvement.

At its core, total quality management (TQM) is a business philosophy that champions the idea that the long-term success of a company comes from customer satisfaction. TQM requires that all stakeholders in a business work together to improve processes, products, services, and the culture of the company itself.

While TQM seems like an intuitive process, it came about as a revolutionary idea. The 1920s saw the rise in a reliance on statistics and statistical theory in business, and the first-ever known control chart was made in 1924. People began to build on theories of statistics and ended up collectively creating the method of statistical process control (SPC). However, it wasn't successfully implemented in a business setting until the 1950s.

It was during this time that Japan was faced with a harsh industrial economic environment. Its citizens were thought to be largely illiterate, and its products were known to be of low quality. Key businesses in Japan saw these deficiencies and looked to make a change. Relying on pioneers in statistical thinking, companies such as Toyota integrated the idea of quality management and quality control into their production processes.

By the end of the 1960s, Japan completely flipped its narrative and became known as one of the most efficient export countries, with some of the most admired products. The effective quality management resulted in better products that could be produced at a cheaper price (Investopedia, 2018).

The responsibility of delivering quality products and services to customers lies on the shoulders of every single individual who is even remotely associated with the organization. It is not only the management but also employees irrespective of their designation, suppliers, clients, and customers who need to come up with improvement ideas to make foolproof systems and processes to deliver quality products which meet and exceed the expectations of end- users (Juneja, 2018).

Total quality management ensures that employees understand their target customers well before making any changes in the processes and systems to deliver superior quality products for better customer satisfaction. In fact, organizations introduce TQM or any other quality management process to increase their customer base and levels of customer satisfaction. TQM increases an organization's database of loyal customers who would not go anywhere, no matter what.

Quality of a product is not defined only in terms of its durability, packaging, reliability, timely delivery and so on but also a customer's overall experience with the organization. Remember customer dissatisfaction leads to loss of business. In service industry, employees need to interact with the customers sensibly and with utmost care and professionalism to expect happy and loyal customers. Design various feedback forms for the customers for them to share what they feel about your products and services. The feedbacks may be in favor of the organization, and may not be in favor of the business. Negative comments or feedbacks of the customers should not be ignored. As a part of total quality management, employees should sit on a common platform, brainstorm ideas and come to concrete solutions which would improve the systems and processes to eventually delivery what the customer expects. No amount of total quality management would help if you ignore your customers.

Methodology

This study utilized the descriptive method of research which involves collecting and analyzing numeric data to answer a research question. The main objective of the study is to determine the level of satisfaction of graduating students of ABC University. In addressing the objective, the researcher gathered information about the students' assessment of the services of the University through descriptive method of research which means the gathering of quantifiable information that was used properly to help an or-

ganization better define and measure the significance of something about a group of respondents and the population they represent. The descriptive method of research is the most appropriate method for this study since it utilizes a standardized questionnaire to determine the assessment of students on the services of the University and identifying areas that needs improvement.

Purposive sampling was used in the selection of the 202 respondents of the study. The study is limited to the graduating students who has stayed in the University for 4-5 years in order to justify their responses in the study. The researchers used questionnaire as the main instrument to gather information from the respondents. The questionnaires were constructed and organized in such a way that the respondents are at ease in answering the questions provided. The questionnaire is divided into three parts, it covers the assessment of teaching and learning modes, academic conditions and provisions, study experience, acquired competencies, and extent of contribution of the university to acquire competencies.

The questionnaires were distributed during the graduation practice, the proponent used stratified sampling to ensure that each College are well represented based on their population.

Score	Range Bracket	Adjectival Rating
5	4.20 – 5.00	Outstanding
4	3.40 – 4.19	Very Satisfactory
3	2.60 – 3.39	Satisfactory
2	1.80 – 2.59	Unsatisfactory
1	1.00 – 1.79	Poor

For the purposes of interpreting the data, the proponent used the process of computing the class interval (Gaunle, 2018). The range of the scores were computed divided by the number of classes. A class interval of 0.80 was used for the lower and upper limit of the class boundaries.

Analysis of Variance (ANOVA) was used to determine if there is a significant difference on the assessment of the students when grouped according to their College. The University has six (6) Colleges that offers programs in business, hospitality management, engineering, computer science, education, industrial technology and allied health sciences.

Results and Discussion

Student Assessment. In order to determine the level of satisfaction of graduating students on the services offered by their University, a survey was conducted after the end of their term. The survey focuses on the different aspects of teaching and learning modes; academic conditions and provisions; study experience; acquired competencies; and extent of contribution of the University towards the acquisition of core competencies.

Teaching and Learning Modes. Various modes of teaching were presented in the first part of the questionnaire, it include the use of learning activities that will help the students develop their skills, knowledge and understanding.

Table 1
Average Satisfaction Ratings on Teaching and Learning Modes

Teaching and Learning Modes	Average Score	Adjectival Rating
Internship / On-the-Job Training	4.45	Outstanding
Lectures and Discussions	4.28	Outstanding
Research Projects	4.25	Outstanding
Demonstration and Reporting	4.24	Outstanding

(table continues on the next page)

Collaborative / Group Work	4.24	Outstanding
Practical / Problem-solving Exercises or Field Work and Studies	4.21	Outstanding
Journals, Essays, other Written Projects and Outputs	4.08	Very Satisfactory
Computer / Technology-aided Instruction	4.07	Very Satisfactory

Table 1 shows the average satisfaction ratings of students on teaching and learning modes. It is noteworthy to mention that students rated *high* (top 3) on internship / on-the-job training, lectures and discussion and, research projects.

Senior students undergo a carefully monitored work or volunteer experience, in which the students have intentional learning goals and reflects actively on what they are learning throughout the experience. Internship program ensures hands on work experience in the real world aligned to their academic studies. The University enter into a Memorandum of Agreement with its Industry partners to ensure that the training plan are strictly implemented.

The common teaching and learning mode used in the classrooms are lecture and discussions. Majority of the professors in the University have gone away from the traditional method of lecture by integrating multimedia and information technology. They use prepared PowerPoint slides that outlines their main points and provides a foundation for each important topic. The lecturer process the information and seek the active participation of the students in sharing their thoughts and real life experiences on the subject matter.

The junior students take the course Introduction to Research, where they are required to submit, present and defend their thesis proposals. The succeeding semester is the implementation of the approved research proposal and is expected to undergo the final oral defense.

Academic conditions. The second part of the questionnaire include assessment of academic conditions in terms of: academic and/or research advice by instructors/personnel; opportunity to be a leader/member of organizations for holistic growth; and provision of student services and facilities.

Table 2
Average Satisfaction Ratings on Academic Conditions

Academic Conditions	Average Score	Adjectival Rating
Academic and/or research advice by instructors/personnel	4.28	Outstanding
Opportunity to be a leader/member of organizations for holistic growth	4.15	Very Satisfactory
Provision of Student Services and Facilities	3.98	Very Satisfactory

The highest rated item is the provision of academic and/or research advice by instructors/personnel. Each thesis group are given advisers who will guide the students in the technical and literary aspect of thesis writing. The University require faculty members to designate at least two (2) hours per week for academic and/or thesis consultation. The students are to report to their advisers regularly.

Student services and facilities. The academic department are divided into functional offices where they provide student services. Those offices are mostly the frontline services that are designed to meet the needs of the students in their academic life. The survey also includes assessment of various facilities that are designed for the holistic growth and development of the students.

Table 3
Average Satisfaction Ratings on Student Services and Facilities

Student Services and Facilities	Average Score	Adjectival Rating
Guidance and counseling services	4.48	Outstanding
Scholarship opportunities and services	4.29	Outstanding
Testing and Admission services	4.18	Very Satisfactory
Library and library services	4.16	Very Satisfactory
Assessment and accounting services	4.13	Very Satisfactory
Cashiering services	4.13	Very Satisfactory
Registration	4.10	Very Satisfactory
Learning modules and other instructional materials	3.99	Very Satisfactory
Security services	3.97	Very Satisfactory
Classrooms and learning spaces	3.97	Very Satisfactory
Laboratory	3.87	Very Satisfactory
Canteen	3.84	Very Satisfactory
ICT services	3.84	Very Satisfactory
Medical / Dental facilities and services	3.81	Very Satisfactory
Recreational spaces / Student Center	3.72	Very Satisfactory
Toilets / Washrooms	3.26	Satisfactory

Guidance and counseling services and scholarship opportunities and services were rated as Outstanding by the students. The Office of guidance and counselling services of the University has been very active in coming up with various activities that encourage students' academic, social, emotional and personal development. They help students get to know themselves better and find effective solutions to their daily problems. They also help students improve themselves in all areas and be full-functioning individuals. Counselors monitor students' development and according to their needs they give students necessary support such as helping them to understand themselves and their needs, to solve their problems, to make realistic decisions, to improve their abilities and skills, and to adjust themselves and their environment in a healthy way.

Almost fifty percent (50%) of the students in the University avail internal and/or external scholarship grants and incentives. The University made a tie-up with various local government units, government agencies, private individual and institutions that offers scholarship grants to deserving students. Some were also given monthly stipend to support the daily financial expenditures of the students. As of writing, the students of State Universities can automatically avail free tuition and miscellaneous fees spearheaded by the national government through the Commission on Higher Education.

Study experience. Third part of the survey is the assessment of study experience in terms of: internship /OJT/ practicum; conduct of research studies and activities; classroom teaching and learning; co- and extra- curricular activities; and conduct of community service/outreach/ extension activities.

Table 4
Average Satisfaction Ratings on Study Experience

Study Experience	Average Score	Adjectival Rating
Internship /OJT/ Practicum	4.39	Outstanding
Conduct of research studies and activities	4.27	Outstanding
Classroom teaching and learning	4.24	Outstanding
Co- and Extra- curricular activities	4.20	Outstanding
Conduct of community service/outreach/ extension activities	4.17	Very Satisfactory

The result of the survey on study experience is in consonance with the results reflected in the assessment of the teaching and learning modes. The top three (3) rated areas are internship /OJT/ practicum, conduct of research studies and activities classroom teaching and learning. This implies that the students learn and enjoy more on the aforementioned teaching modes and academic conditions.

Acquisition of competencies. The University functions are based on the four pillars of the academe, such as instruction, research, extension, and production. Each area are designed to develop well-rounded students and equip them with soft and hard skills.

Table 5
Average Satisfaction Ratings on Acquisition of Competencies

Acquired Competencies	Average Score	Adjectival Rating
Integrity and Respect	4.30	Outstanding
Decision-making Skills	4.30	Outstanding
Knowledge of your field or discipline	4.29	Outstanding
Work Ethics	4.29	Outstanding
Lifelong learning skills	4.26	Outstanding
Working with people of different backgrounds and culture	4.25	Outstanding
Adaptability and Flexibility	4.24	Outstanding
Research skills	4.23	Outstanding
Leadership and Responsibility	4.23	Outstanding
Problem-solving ability	4.22	Outstanding
Written Communication skills	4.22	Outstanding
Presentation skills	4.21	Outstanding
Working independently	4.21	Outstanding
Time management	4.21	Outstanding
Technical Skills in your fields or disciplines	4.17	Very Satisfactory
Critical and analytical thinking	4.15	Very Satisfactory
Oral Communication skills	4.15	Very Satisfactory
Computer/Internet/ICT skills	4.09	Very Satisfactory
Knowledge of other fields or disciplines	4.08	Very Satisfactory
Stress Tolerance/Working under pressure	4.08	Very Satisfactory

The top rated competencies as assessed by the respondents are working with people of different backgrounds and culture, adaptability and flexibility, and research skills.

Part of the teaching strategies used in the classroom are group works and activities, it help students learn to work collaboratively and ensure that group work improves learning for all. Group works include research projects, reporting, case study analysis, cooperative learning, workshops, collaborative learning, and brainstorming. Group work strategy develop not only camaraderie but also adaptability and flexibility. Research skills are developed in the students since some of the major subjects offered in the curriculum are considered research-based. Part of their course requirement is the conduct of simple research to encourage not only criticizing an existing knowledge but also creating new knowledge.

University's contribution in the acquisition of competencies. To be able to gauge whether the acquired skills and competencies of the students are attributed from the University, the same factors of acquired competencies are used in the last part of the survey.

Table 6
Average Satisfaction Ratings on University's Contribution in the Acquisition of Competencies

University's Contribution in the	Average Score	Adjectival Rating
Acquisition of Competencies	Average Score	Adjectival Rating
Work Ethics	4.37	Outstanding
Integrity and Respect	4.34	Outstanding
Decision-making Skills	4.34	Outstanding
Written Communication skills	4.28	Outstanding
Knowledge of your field or discipline	4.28	Outstanding
Oral Communication skills	4.27	Outstanding
Adaptability and Flexibility	4.27	Outstanding
Leadership and Responsibility	4.27	Outstanding
Working with people of different backgrounds and culture	4.26	Outstanding
Lifelong learning skills	4.25	Outstanding
Problem-solving ability	4.25	Outstanding
Time management	4.24	Outstanding
Presentation skills	4.23	Outstanding
Research skills	4.23	Outstanding
Working independently	4.23	Outstanding
Stress Tolerance/Working under pressure	4.22	Outstanding
Technical Skills in your fields or disciplines	4.20	Outstanding
Critical and analytical thinking	4.20	Outstanding
Knowledge of other fields or disciplines	4.18	Very Satisfactory
Computer/Internet/ICT skills	4.16	Very Satisfactory

The students attribute their work ethics, integrity and respect, and decision-making skills to the University. This implies that the students live up to the core values set by the University. This pertains to the University's steadfast adherence to morally-sound principles and ideals in the pursuit of institutional goals and objectives. It covers the values of accountability, honesty, righteousness, incorruptibility, and decency in the governance and implementation of academic, administrative, and financial policies. The University also advocates the recognition and acceptance of individual and professional differences in the exercise of academic freedom and the freedom of expression. It is exhibited by a community that is progressive-minded and receptive to growth and positive change.

Test for difference. Analysis of Variance (ANOVA) was used to determine if there is a significant difference on the satisfaction ratings of different areas of evaluation when grouped according to their colleges. The test allows comparison of more than two groups at the same time to determine whether a relationship exists between them. The test analyzes multiple groups to determine the types between and within samples (Investopedia, 2018).

Table 7
ANOVA Test Results

Source of Variations	F Ratio	F critical
Teaching and Learning Modes	3.09	2.44
Academic Conditions and Provisions	4.22	2.30
Study Experience	6.01	2.62
Acquired Competencies	16.37	2.29
University's Contribution in the Acquisition of Competencies	24.25	2.29

Remarks: There is a significant difference on the level of satisfaction.

ANOVA test results shows that F-ratio is greater than the F-critical values, null hypothesis is rejected, thus, there is a significant difference on the assessment of the students across all variables when grouped according to colleges. It implies that each college uses different teaching and learning modes, provides different academic conditions and learning facilities, and study experiences and training for core competencies.

Areas needing improvement. The proponent identified the lowest rated parameters are areas that needs improvement. Though some are rated as *satisfactory* and *very satisfactory*, it is the goal of the University to continuously improve its services as part of its quality management system.

Table 8
Areas Needing Improvement

Parameters	**Areas**
Teaching and Learning Modes	• Journals, Essays, other Written Projects and Outputs • Computer / Technology-aided Instruction
Academic Conditions and Provisions	• Recreational spaces / Student Center • Toilets / Washrooms
Study Experience	• Conduct of community service/outreach/extension activities
Acquired Competencies	• Oral Communication skills • Computer/Internet/ICT skills

Teaching and learning modes such as journals, essays, other written projects and outputs, and computer / technology-aided instruction was rated lowest by the respondents. This is in consonance with an article entitled "The End of College Essay" (Schuman, 2013). It argues that everybody in college hates writing papers, they hate it so much that they buy, borrow or steal them instead, resulting to plagiarism. The author further suggested that instead of essays, courses should return to old-school hardcore exams, written and oral. Though Schuman (2013) admitted that this quashes the shallow pretense of expecting undergraduates to engage in thoughtful analysis. Another area is the use of technology-aided instruction; though majority of the faculty members are already computer literate, they are limited with the number of available television sets and multimedia projectors. In the absence of the aforementioned teaching equipment, they resort to the distribution of printed handouts.

Recreational spaces and student center was also identified with the lowest rate in academic conditions and provisions. Though the University provides recreational spaces such as covered courts, the grandstand and mini forest, the campus lack student center. The administration has already included the multiple-storey building for student center in its campus development plan.

The conduct of community service/ outreach/ extension activities were also rated lowest in study experience. The usual participants of extension activities of each programs are the officers of student organizations. There is a need to include non-officers in the program as volunteer extensionists.

The least identified acquired competencies are oral communication skills and computer/internet/ ICT skills. Though the University has the system of identifying those students with advanced communication skills through its English Proficiency Test during admission, there is still a need to engage the students for oral recitation. Faculty members should designate the whole campus as an English speaking zone. Currently, the University has one computer and internet laboratory that will accommodate approximately 3,000 students for the whole semester.

Conclusions and Recommendations

Respondents are generally satisfied with the services of the University in terms of teaching and learning modes, academic conditions and provisions, study experience, acquired competencies, and extent of contribution of the university to acquire competencies. There is a significant difference on the satisfaction ratings of the services of the University when grouped according to colleges. The areas needing improvement as assessed by the respondents are the use of written outputs and technology-aided instruction as teaching and learning mode, the provision of recreational spaces/student center and clean toilets, the involvement of students in extension activities, and improvement of the students, oral communication, and ICT skills.

Faculty members may consider the use of technology-aided instruction and enforce the use of oral and written communications as teaching and learning medium. The administration may consider the inclusion of additional recreational spaces and the establishment of student center in the campus. The program chairpersons may employ the use of student volunteers for extension programs, activities and projects. If the budget warrants, the administration may consider adding more computer and internet laboratories that will accommodate the needs of the students. Future researchers may conduct similar studies using different service quality models.

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Effects of Organizational Politics on Employee Behavior: A Study on a Local Government Unit in Laguna

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Abstract

This study examined how employees' react toward organizational politics while working in the local government unit. Politics in the organization is defined as actions which affect behaviors, activities, and decision making through the use of power. The questions used in the research examined the area to which values differed and how employees respond in facing organizational politics. A survey-based research design included 40 participants was used to evaluate the employee's view of political behaviors and practices within the organization. There were 21 males and 19 females who participated. In analyzing the data, SPSS was used to measure descriptive analysis, correlational and regression analysis. The results showed that employees agree that organizational politics influences are not observed in the institution, employees are more committed to their current jobs, most of them preferred working in a group rather than individually, employees experience work related stress, and males dominate most of the work. The results of this research are helpful for the organizations and society to manage the problematic side of organizational politics.

Keywords: *organizational politics, employee behaviour, local government unit*

The research will assess different employees' work related behaviors, such as motivation, job anxiety, and intent to quit as it relates to organizational politics; relating employee work values to organizational politics.

The political culture of Filipinos is a set of concrete and mental constructions. It includes beliefs, feelings, language, and customs practiced by a great number of Filipinos as they allocate, produce, and utilize political powers outside, inside, and in association with the state. Politics is attributed to both the force that exerts social influence on organizations and strategic processes that challenge or use power.

Mahler (2013) mentioned that the students understand the word politics as an image such as legislatures, courts, and interest group while advanced students may associate concept such as power, influence, and socialization with the concept of politics.

The combination of power and politics has spread across the organization. Within increasingly competitive business environments, people have a lot to think and worry about than just finishing their given work. Workplace politics and power have a strong impact on day-to-day operations.

Organizational politics was interpreted by various researchers as a process which affect activities, behaviors, and making decision through the use of power (Brouer, Harris, & Kacmar, 2011). Organizational politics within a workplace is the intentional utilization of power by individuals to reach goals and personal interests within their workplace. Many leaders use their position of power within an organization to influence an action and affect decision making. Organizational politics can influence behaviors and alter organizational unity and effectiveness to a more disastrous outcome. Disastrous outcomes include reducing commitment and job satisfaction to the whole organization, lowering of job effectiveness, higher turnovers of employees and job anxiety.

Review of Literature

Organizational Politics

Politics is about studying the distribution and exercise of power can take place in a context dominated by persuasion, inducement, manipulation, or other form of influence broadly conceived (Burnham, Lutz, Grant, & Layton-Henry, 2013).

Organizational politics had its difficulty during the past by trying to define it. Organizational politics are the activities and behaviors used by individuals in power to change or influence a decision making process, this is observed to have adverse effects on the individuals as well as the organization in general (Tlaiss, 2013). Bodla and Danish (2013) proposed a theoretical model established on different dimensions such as political behaviors and power, influence tactics, and politics that might disclose the behavior of employees towards politics within an organization.

Also according to Ferris and Hochwarter (2011), organizational politics points out that members in the organization can affect the decisions either by using power or action to influence like agenda, negotiation, control of flow of information, and formation of coalition. In order to support their preferences, these people resort to forming coalitions in which the most powerful group will prevail.

Behavior

According to Mahler (2013), political behaviour is used to describe one persons' interest in understanding how and why a person acts within a given specific environment.

Ferris and Kacmar (1991) explained that political tactics and behaviors are widely observed in every organization. These tactics have a significant impact on performance of employees at workplace. The impression of employees about the politics visible in their work environment can seriously affect their work. Naturally, politics happen because of varied workforce within an organization, including the differences between employees' agendas, knowledge, skills, and views. As studied by Ferris and Hochwarter (2011), organizational politics is a self-serving behavior that is focused on securing advantage over others and observed as a stressor in working environments. Political behavior is regarded by authors as the negative use of influence or power to fulfil their personal goals even at times will violate rules and policies of the organization.

Zhonghua and Chen (2014) explained organizational politics as a process of social influence in which the members of the organization engage in different opportunistic behaviors for the sole purpose of maximizing self-interest. It is not typically recognized by the rules, regulations, and policies formalized within an organization, but is quite obvious in organizations.

It is highlighted by Khalid and Ishaq (2015) that political tactics and behaviors are widely observed in every organization. These tactics have a significant impact on performance of employees at workplace. Perceptions of employees about the politics prevailing in their work environment can significantly affect their work.

Methodology

Research Design

The research design is survey method and the factors that affect the employees and how they react to organizational politics were identified. The utilized design for data collection was a questionnaire survey which was used to obtain information.

Samples

A total of fifty-five questionnaires were distributed, and only forty employees responded and returned the questionnaire. Twenty-one of the respondents were male and nineteen were female. The participants were permanent employees of Biñan City Hall.

Instrumentation

Using the established questions for the questionnaire using a model of Likert scale of 1 through 5 respectively, participants will have the time to answer each of the questions by answering *strongly disagree (SD), disagree, (D), neutral (N), agree (A), and strongly agree (SA)*.

Items were reverse coded so that its score would have identical meaning as that of the other items in the scale. For example, almost all of the items in the Organizational Politics scale were phrased in a manner that someone who agreed with these items would indicate dissatisfaction with their work situation.

The questionnaire consisted of seven (7) items that measure influences of organizational politics, five (5) items that measure individual distribution of power, five (5) items that measure cultural influence of uncertainty, four (4) items that measure present challenges, five (5) items that measure institution interdependence, four (4) items that measure gender differentiation and eight (8) items that measure observable organizational stress. The information obtained were analysed using mean, standard deviation, or descriptive statistics.

Result and Discussion

Assessing organizational politics, how it will affect organizational process and identifying the perception of the employees regarding organizational politics was the aim of the study.

The mean is the measurement of the average for the responses answered for each of the scale that was tested. The standard deviation is the spread of the variables or how far apart were the responses from the mean.

Table 1
Descriptive Statistics of Organizational Politics

Items	Mean	*SD*	Interpretation
1. Raise themselves by pulling others down	4.57	0.54	Agree
2. Influential people in the department	4.52	0.55	Agree
3. Pay and promotion policy is applied	4.70	0.51	Agree
4. Pay raise and promotion based on policies	4.42	0.54	Agree
5. Employees are encouraged to speak out ideas	4.42	0.59	Agree
6. Agreeing with powerful people is observed	4.50	0.55	Agree
7. Who you know is important in the department	4.32	0.57	Agree
Overall Rating	4.49	0.32	Agree

The results revealed that the employees agree that organizational politics is not observed in the organization. Mere presence of organizational politics in any organization is shown in the reaction of employees for any gesture taken in their own advantage, interests, and benefits. Organizational politics is mostly related to attitudes like exploiting against other employees, and the unnecessary use of power or influence for the sake of own interest (Richardsen, Traavik & Burke, 2016).

Table 2
Descriptive Statistics of Individual Distribution of Power

Items	Mean	SD	Interpretation
1. Organizational politics influences poor performance	4.52	0.55	Agree
2. Higher ranked officials easily survive against politics	4.42	0.54	Agree
3. Higher ranked officials easily develop strategies against politics	4.45	0.55	Agree
4. Higher ranked officials can deal with political issues appropriately	4.32	0.57	Agree
5. Higher ranked officials can take unjustified decision against organizational politics	4.50	0.55	Agree
Overall Rating	4.49	0.32	Agree

The results revealed that the employees agree that organizational politics is not observed in the organization. Mere presence of organizational politics in any organization is shown in the reaction of employees for any gesture taken in their own advantage, interests and benefits.

Table 3
Descriptive Statistics of Cultural Influence of Uncertainty

Items	Mean	SD	Interpretation
1. Quitting job because of organizational politics	4.40	0.54	Agree
2. Taken interest in job offers in newspapers or job recruitment site	4.50	0.55	Agree
3. Higher ranked officials easily develop strategies against politics	4.35	0.57	Agree
4. Politics has affected long-term commitment in the organization	4.42	0.54	Agree
5. Willing to take new job when offered today or tomorrow	4.45	0.55	Agree
Overall Rating	4.42	0.35	Agree

Table 3 presents items that were reverse coded meaning a low score would make the employee think seriously of leaving the current job in the organization and find a new one. The adjusted score meant that employees are not thinking of leaving the organization. Perception of Filipinos that working for the government has its advantages like enjoying security of tenure, better salary compared with private institutions and other privileges.

Table 4
Descriptive Statistics of long-term orientation

Items	Mean	*SD*	Interpretation
1. Easily survive politics within the department	4.30	0.51	Agree
2. Would not get the same opportunity if I left the current work	4.35	0.53	Agree
3. Highly committed to serve the organization	4.32	0.52	Agree
4. Feel like part of the family in the organization	4.35	0.53	Agree
Overall Rating	4.33	0.36	Agree

The respondents agreed that their commitment to the organization and staying in the current job gives them the reason to continue working for the institution. The feeling of belongingness or acceptance in the organization gives the employees a reason to commit working long-term.

Table 5
Descriptive Statistics of institution interdependence

Items	Mean	*SD*	Interpretation
1. Working in a team increases productivity	4.27	0.59	Agree
2. Necessary to develop working relationship with colleagues	4.35	0.53	Agree
3. Satisfied with individual performance rather than working in groups	4.35	0.53	Agree
4. Organizational politics ruin efforts of teams	4.27	0.55	Agree
5. Individualism be avoided in organizations to achieve result	4.40	0.63	Agree
Overall Rating	4.33	0.35	Agree

A high score is interpreted that workers prefer working individually than in a team or group. McCoy, Galleta, and King (2005) defines this aspect as the level to which a person makes self-interest as a priority over the interests of the team or group. The result shows that employees commitment to working with a group and acknowledges satisfaction and productivity is achieve.

Table 6
Descriptive Statistics of Gender Differentiation

Items	Mean	*SD*	Interpretation
1. More men are in managerial position than woman	4.35	0.53	Agree
2. Men are more aggressive workers than female workers	4.17	0.59	Agree
3. Male workers make good judgment compared to female workers	4.05	0.63	Agree
4. Female employees are not assigned to working late	3.95	0.63	Neither agree or Disagree
Overall Rating	4.13	0.46	Agree

Table 6 shows that the organization is led by male employees although nowadays men and women may have equal roles in the workplace. But according to Hofstede (2001), the male and female dimension is related to the characteristics of the culture, instead of the gender of the subject. Feminine culture prefers processes and aesthetics, while masculine culture prefers output and performance.

Table 7
Descriptive Statistics of Organizational Stress

Items	Mean	*SD*	Interpretation
1. Work with great pressure	4.77	0.42	Agree
2. Too much work with little time to do it	4.67	0.47	Agree
3. I have more things to do than what is expected	4.62	0.49	Agree
4. My supervisor informs me about decisions affecting me	4.62	0.54	Agree
5. Not being liked and accepted by people is very stressful	4.57	0.54	Agree
6. I feel I have to do things that are against my better judgment	4.72	0.50	Agree
7. I have too little authority to do the responsibilities given to me	4.57	0.54	Agree
8. I am not aware of advancement opportunities or promotion in my organization	4.65	0.53	Agree
Overall Rating	4.65	0.28	Agree

Respondents agree that organizational stress is observed and present in the organization. Higher score means greater work-related stress. Organizational stress is explained as a result of organizational activity that bring pressure or burdens the mind of an employees. In the whole study, organizational stress got the highest score compared with other variables.

Table 8
Correlation Table on Organizational Politics and Employee Behavior

		R	Sig	Relationship
Organizational Politics	Influence of uncertainty	0.463	0.003	Moderate
	Present challenges	0.403	0.010	Moderate
	Institution interdependence	0.217	0.179	Weak
	Gender differentiation	0.460	0.003	Moderate
	Organizational stress	-0.143	0.378	Weak

A correlation analysis using two-tailed Pearson correlation was performed as shown in Table 8. The correlations were tested to a significance level of $p = .01$ two tailed test. Correlation coefficients which falls between $.1 < r < .3$ implies a weak relationship between the scales tested, a moderate correlation is $.3 \leq r < .5$, and a strong correlation coefficient implies a strong relationship between the scales tested is $.5 \leq r \leq 1$. The result reveals a moderate positive correlation between organizational politics and influence of uncertainty $r = .463$, organizational politics and gender differentiation ($r = 460$), organizational politics and present challenges ($r = .403$). Institution interdependence shows a positive weak correlation ($r = .217$). Organizational stress shows a negative weak correlation ($r = -.143$).

Table 9
Regression Analysis on Organizational Politics and Employee Behavior

Model	R	R Square	Adjusted R Square	Unstandardized Coefficient	Standardized Coefficient	t	Sig
Uncertainty Influence	0.463	0.215	0.194	0.641	0.463	1.755	0.003
Present Challenges	0.403	0.162	0.140	0.573	0.403	1.875	0.010
Institution Interdependence	0.217	0.047	0.022	0.298	0.217	1.369	0.004
Gender Differentiation	0.460	0.212	0.191	0.838	0.460	3.194	0.003
Organizational Stress	0.143	0.020	0.005	-0.160	-0.143	-0.891	0.378

Regression analysis indicates that the predictors of organizational politics are: gender differentiation, uncertainty influence, and present challenges. This results suggest that uncertainties about the future, gender roles and challenges in the workplace; the possibility of organizational politics in the institution will occur.

Conclusion and Recommendation

This study examined employee behaviour as it reacts to organizational politics of a local government unit. The study found out that employees are committed to their current jobs, productive if working in a group, encounter work-related stress. Aside from work-related stress, organizational politics did not greatly affect employee behaviour while working in the institution.

Based on these results, it is recommended that the current government officials in the institution continue the good management of employees and maintaining a culture of productive workers. The human

resource may look for stress management program to help employees cope up with the stress they are experiencing. It is also recommended that the leadership of the institution monitor any organizational politics that may affect the behavior and work ethics of its employees.

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Influence of Training and Development and Performance Appraisal on Employee Retention in the Adventist University of Central Africa: An Employee Perception

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Abstract

Employee retention is a challenge for organizations and learning institutions. An employee who has worked for the organization and has gained experience is an intellectual asset to the organization that should be maintained in order to gain from the knowledge and experience that the employee has attained while working in the organization. Over the past years the Adventist University of Central Africa (AUCA) has experienced the leaving of most valuable employees in terms of knowledge, skills, abilities and experience. The researcher was inspired to explore the reasons with the focus on training and development, performance appraisal, and their influence on employee retention in the university. The study therefore investigated the perception of the respondents on employee training and development and performance appraisal and how they influence employee retention in AUCA. A total of ninety-two employees were selected as respondents using simple random sampling technique. Frequencies and percentages were used to measure the demographic profile, means and standard deviation were used to analyze the respondents' responses on training and development, performance appraisal and employee retention, while the Pearson correlation was used to measure the relationship among the variables. It was found out that training and development and performance appraisal influence the employees' to leave and further affect the employee retention in the university. This also showed that there is a relationship between Training and Development, Performance Appraisal and Employee Retention in AUCA. This research recommends that the university administration and through the human resource manager should uphold performance appraisal and training and development among the employee with these practices being objective rather than subjective to facilitate employee retention. It is further recommended that further studies be conducted on evaluation of the policies on training and development and performance appraisal.

Keywords: *training and development, performance Appraisal, Employee Retention*

In today's aggressive business world, employee retention has turned into a major concern in organizations. Employee retention is an increasingly important challenge for organizations as the age of the knowledge worker unfolds (Lumley, Coetzee, Tladinyane & Ferreira, 2011). This is due to the fact that an employee who has worked for the organization and has gained experience is an intellectual asset to the organization. This important asset should be maintained in order to gain from the knowledge that the employee has attained while working in the organization.

Employee retention is critical for the organization to maintain its performance and reduce the unnecessary costs on training if replacement of an employee who has left the organization has to be made. It is also important to note that it is not easy for the organization to get a replacement for the employee who leaves the organization overnight. However, it may take a relatively long period to get the right person to fill the position.

Presently the labor market belongs to employees, because talented candidates in the global job skills market have the luxury of choice (Harris, 2007). It is quite evident that in the labor market, the employee has a variety of options of prospective employers to choose from and she/he has the freedom to choose the company to work in depending on the various factors that the individual may be looking at. This posts a great challenge on the employees on how they should be in a position to keep or/and retain their current good performing employees in their organization.

In a world where competition is very high and an endeavor for many organizations and technology is high and keeps on changing as days go by, it is easy for competitors and other players in the market to duplicate processes and products from other players/competitors. It is quite evident that employees are the key and most reliable resource that can keep an organization a step ahead of its competitors. Pfeffer (2005) affirms that acquisition, development and retention of talent form the basis for developing competitive advantage in many industries and countries. Accordingly, for any organization to thrive and remain competitive it is important that it attracts and retains the best human resources. This implies that employee retention plays a very important role in the growth and sustainability of any organization.

This research was meant to unearth the perception of the employees of the Adventist University of Central Africa on the influence of training and development and performance appraisal on retention in the organization. This is to address the rampant departure of employees that has been experienced in the University.

The results of this research will help the administration of the Adventist University of Central Africa to realize the importance of performance appraisal and training and development in motivating the employees to stay with the organization for long (retention) and realize the mistakes that have been made in the past for them to have corrective measures undertaken.

Literature Review

Training and Development

Training and development would be used to help the organization to impart the acquisition of skills, abilities, needed knowledge, desired behavior of employees which is meant to help the organization to achieve its stated goals. Training should impart new knowledge and skills if the training is relevant, meets employee and organizational needs, efficiently and effectively designed and delivered. When the results of training are effectively reflected in the delivery of the employee's tasks and duties, the employee's job performance should automatically show improvement provided that the skills learned in training are transferred to the job. Training is a valuable activity for enhancing skills and improving staff performance and that training can address some of the factors contributing to staff retention, such as perceived support from the supervisor, the agency, and community. Training can define roles more clearly to employees, thereby minimizing job stress. Organization with sufficient training opportunities should thus have higher retention rate.

Training and development can be conducted in different ways, these include on-the-job training, off-the job training, job rotation, coaching and mentoring, and employee development. On-the-job training will be able to uphold efficiency, and create interest in work. It also gives a sense of accomplishment and create commitment to the organization and this will increase the level of employee retention (Hanif, 2013). Off-the-job training gives the employees a chance to concentrate on the expected activity and be able to acquire the skill and knowledge without being interrupted (Elnaga, & Imran, 2013), this will contribute to the increase of the employees willingness to stay with the organization.

Job rotation helps the employee to enrich their skill set and has positive effect on employee motivation and retention (Kaymaz, 2010). Coaching and mentoring is considered to be one of the effective training and development methods. Job rotation enables one-to-one consultation that will always give an allowance for practical questions to be asked while the employee is performing his/her tasks and duties. This helps the organization to impart high performance among the employees and it will fasten the employee's adjusting

process and thus enhance better performance and productivity (Ameeq & Hanif, 2013). This will always act as a source of encouragement to the employee to stay with the organization without creating the intention to leave.

Performance Appraisal

Performance appraisal is a process of inspecting and evaluating an individual's performance in his job through looking at the tasks and duties that the employee in involved in doing to facilitate the decision of training and development of the individual. It evaluates the individual's overall contribution to the organization through assessment of his internal characteristics, working performance and his capability to pursue higher position in the organization.

For performance appraisal to be successful and meaningful in the organization, it should always be done with reward and/or recognition put down as a motivator. It is evident that if no reasonable rewards are attached to performance appraisal, there would be no impact that will be realized on the employee performance or retention (Lawler III, 2003) employees could also feel not motivated and this will create room for the employee to either think of leaving or they become unwilling to be part of the appraisal process (Daoanis, 2012).

Employee Retention

Employee retention refers to policies and practices that companies use or may use to prevent valuable employees from leaving their job. It involves taking deliberate measures to encourage employees to remain in the organization for the maximum period of time (Anitha & Farida Begum, 2016). Hiring knowledgeable people for the job is essential for an employer. The new employees need more training and development compared to the already existing employees who are already acquainted with the organization and what is required of them while also having the required knowledge of the organization. This is true as many employers have underestimated costs associated with turnover of key staff.

Methodology

The researcher employed and utilized descriptive and correctional research design. The choice of these designs was informed by the ability of descriptive method to profile respondents categorically and the correlation was to examine the relationship between variables. Collectively, these designs formed the background upon which the statistical analysis of this research is based.

The total population of employees in AUCA was one hundred and twenty (120). The primary data for the research was collected through a four point likert-scale questionnaire. A self-structured questionnaire was administered to a sample size of ninety two (92) employees in AUCA using a simple random sampling technique, out of which sixty five (65) were retrieved and considered usable for the research indicating a 70% retrieval rate.

The questionnaire adopted a four-point likert scale that required the respondents to indicate the selected option for a given statement from strongly agree to strongly disagree and the interval between each point on the scale was assumed to be equal. The scaling was composed of the following: 1- *Strongly Disagree*, 2 - *Disagree*, 3 - *Agree*, 4 - *Strongly Agree*.

The data obtained through the questionnaires administered to the respondents was examined and analyzed using the Statistical Package of Social Sciences (SPSS) version 17.0, and the results obtained were presented in the form of tables. The data was analyzed using the frequencies, percentages, means, and standard deviations tools in SPSS.

Specifically, means and standard deviation were used to analyze the respondent's responses on training and development, performance appraisal, and employee retention, while the Pearson correlation was used to measure the relationship between the variables.

Results and Discussion

The respondents in the study were made up of 52 (80%) males and 13(20%) females. Thirty-six (60.8%) of the respondents were between 21 and 30 years of age, 19 (29.2%) between the ages of 31 and 40 years, and 10 (5.5%) were 41 years old and above.

Employee Perception on Training and Development

Table 1 illustrates the perception of the employees on the reward, recognition and compensation benefits as given to the employees in the university.

Table 1
Employees' Perception on Training and Development

Training and Development	SA		A		D		SD		WM	SD	C
	F	P %	F	P %	F	P%	F	P%			
The administration provides sufficient time and opportunity to undertake any formal training	0	0	0	0	55	84.6	10	15.4	1.85	.364	HO
This organization has provided me with training opportunities enabling me to extend my range of skills and abilities.	0	0	0	0	9	13.8	56	86.2	1.86	.348	HO
The administration always ar-ranges Training of the employees while they are on the Job	0	0	9	13.8	47	72.3	9	13.8	2.00	.530	HE
The administration always offers training of the employees by allowing them to attend conferences and seminars	0	0	0	0	56	86.2	9	13.8	1.86	.348	HO
The employees are always rotated from one job to the other within the university so as to gain various skills and experi-ences	0	0	46	70.8	9	13.8	10	15.4	2.55	.751	HE
Overall Mean on Training and Development									2.02	0.29	HO

Key: SA:- Strongly Agree, A:-Agree, D:-Disagree, SD:-Strongly Disagree, C:-Comment, HE:-Heterogeneity, HO:-Homogeneity, M:- Mean, WM:- Weighted Mean, SD:- Standard Deviation

Based on the finding of Table 1, it shows that that training and development in the university is not carried out in a proper way; this is indicated by the overall mean of 2.02 interpreted as *low*, with a homogenous standard deviation of 0.29, indicating that all the employees have the same opinion. All the other elements of this variable scored a mean of less than 2.55 and relatively homogenous standard deviations.

Employee Perception on Performance Appraisal

Table 2 illustrates the perception of the employees on Performance Appraisal.

Table 2
Employees' Perception on Performance Appraisal

Performance Appraisal	SA		A		D		SD		WM	SD	C
	F	P %	F	P %	F	P%	F	P%			
The focus of the performance appraisal system in the universi-ty is to know the reasons for low level of performance of the em-ployees.	0	0	9	13.8	56	86.2	0	0	2.14	.348	HO
All employees have the right to see the results of the evaluation of his performance	0	0	9	13.8	55	84.6	1	1.15	2.12	.375	HO
The university administration relies on the results of the per-formance evaluation in the iden-tification of training needs.	0	0	46	70.8	9	13.8	10	15.4	2.55	.751	HE
The university administration relies on the results of the per-formance appraisal system in the process of promoting and trans-ferring staff and faculty mem-bers.	0	0	46	70.8	9	13.8	10	15.4	2.55	.751	HE
Overall Mean on Training and Development									2.34	0.37	HO

Key: SA:- Strongly Agree, A:-Agree, D:-Disagree, SD:-Strongly Disagree, C:-Comment, HE:-Heterogeneity, HO:-Homogeneity, M:- Mean, WM:- Weighted Mean, SD:- Standard Deviation

Table 3
Employees' Perception on Training Development

Training and Development	SA		A		D		SD		WM	SD	C
	F	P %	F	P %	F	P%	F	P%			
I get along with the manager and co-workers of this university	0	0	10	15.4	55	84.6	0	0	2.15	.364	HO
I am happy with the university regular performance evaluations, which includes peer-to-peer feedback.	0	0	47	72.3	18	27.7	0	0	2.72	.451	HO
I am satisfied with the university management support for em-ployees	0	0	9	13.8	46	70.8	10	15.4	1.98	.545	HE
I am satisfied with the university employee reward and recogni-tion programs.	0	0	46	70.8	10	15.4	9	13.8	2.12	.375	HO
The university has opportunities for sharing best practices, with rewards for participation.	0	0	46	70.8	10	15.4	9	13.8	2.57	.728	HE
Overall Mean on Training and Development									2.31	0.493	HO

Key: SA:- Strongly Agree, A:-Agree, D:-Disagree, SD:-Strongly Disagree, C:-Comment, HE:-Heterogeneity, HO:-Homogeneity, M:- Mean, WM:- Weighted Mean, SD:- Standard Deviation

The findings in Table 3 showed that all the elements that were evaluated under the retention of the employees at the university scored a mean less than 2.60 interpreted as *low* with slightly mixed reaction on the standard deviation; some being homogeneous and some heterogeneous. The overall mean was 2.31 interpreted to be *low* with a homogeneous standard deviation of 0.493 indicating that the employees have the same opinion on the their retention in the university.

Pearson Correlations Between Training and Development, Performance Appraisal and Employee retention

Table 4 illustrates the Pearson correlation between training and development, performance appraisal, and employee retention.

Table 4
Correlations Between Training and Development, Performance Appraisal and Employee Retention

		Training and Development	Performance Appraisal	Employee Retention
Training and Development	Pearson Correlation	1	.362**	.866**
	Sig. (2-tailed)		.003	.000
	N	65	65	65
Performance Appraisal	Pearson Correlation	.362**	1	-.152
	Sig. (2-tailed)	.003		.227
	N	65	65	65
Employee retention	Pearson Correlation	.866**	-.152	1
	Sig. (2-tailed)	.000	.227	
	N	65	65	65

The depth of relationship between training and development and performance appraisal to employee retention was established to substantiate the documented perception of the surveyed respondents. In light of this, the correlation analysis was conducted to authenticate the presumed proposition of a relationship.

As evident in Table 4, a strong positive statistical significant relationship between training and development (Pearson Correlation Coefficient of 0.866) and employee retention was found with a 1% (0.000) level of significance, and an average positive statistical significant relationship between training and development (Pearson Correlation Coefficient of 0.362) and performance appraisal. This implies that employee retention is dependent on performance appraisal and training and development.

Based on these findings, this research is an added value to existing knowledge on the debate about the depths to which training and development and performance appraisal influence employee retention. Hence, it is suggested that university administration and the human resource management department of the university should uphold the training and development and performance appraisal since they act as integral components in determining the retention of the employee's in the university.

Conclusion

Although existing researchers have identified the various elements that influence employee retention, the human resource management department and the entire administration have not put this into the right perspective or they have intentionally neglected the components and their influence. This research contributes to the wealth of existing documentation through the identification of various factors that determine employee retention in the university.

On training and development, it is clear that there is no proper guideline on the training and development in the organization. This has caused unnecessary training and development and both the organization and the employees are losing a lot of time and finances due to this exercise.

On performance appraisal, it was indicated that there is no clear guideline on the aim or major objective of the appraisals. The results or feedback is shared with the employees especially those affected by the appraisal.

It is therefore important that the organization looks at ways to improve the perception of the employees towards the organization in regard to employee appraisal and their training and development. The organization should look at measures to have training and development that is relevant and related to the performance appraisal outcomes. There should also be a proper and non-subjective but objective performance appraisals and be able to provide necessary feedback so that both the employees and the organization could benefit. This will cut on recruitment costs and also act as a motivator to the employee.

This study concludes that by adapting training and development and performance appraisal policies that motivate the employees in the organization, talent can be retained and at the same time the organization can achieve the set goals and objectives and become competitive and successful in the industry.

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The Relationship Between Working Capital Management and Profitability: A Confirmatory Study from Selected Banks in Ghana

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Abstract

From 2017 to 2019 nine indigenous owned banks have collapsed and were consolidated by the Bank of Ghana. Most of these banks reported profitability and won awards with them but were receiving liquidity support from the Bank of Ghana. This study aimed to examine the relationship between working capital and profitability of 25 commercial banks in Ghana from 2016-2018. A panel data methodology was used. The data were obtained from the Bank of Ghana to study the correlation between working capital and profitability. The liquidity ratio of current ratio and cash ratio represented working capital management, and profitability was measured by the return on asset of the banks. The findings of the study revealed that there is a small significant negative relationship between working capital management and profitability. This confirms the financial rule of thumb that working capital is inversely related to profitability as high working capital will cause profitability to be low and vice versa. This indicates that higher assets reduce profitability, and increasing debt withdrawal, which further declines the profitability. The study recommends to banks in Ghana to seek equilibrium on working capital and profitability to prevent a possible collapse.

Keywords: *working capital, profitability, liquidity, current ratio, cash ratio*

Working capital management is an essential aspect of finance. This is because it impacts the liquidity and profitability of the firms. It involves the use of current assets and current liabilities. Most banks operate on the working capital as their existence is seen in the customer deposits in the current liability and their revenue generation based on the advances or loans given out to customers. Therefore, it is paramount to understand the working capital management of banks and how it is linked to profitability. Banks with few current assets may incur shortages and difficulties in maintaining smooth operations (Abor, 2005).

Between 2017 and 2019, the Bank of Ghana (BOG) has caused the collapse and consolidation of nine domestic commercial banks. Most of these banks in their financial reports were showing profitability but were intermittently seeking liquidity support from the Bank of Ghana which Ankomah (2018) commented was against the banking act of Ghana; hence, this empirical study was done to confirm the relationship between working capital management and profitability of banks in Ghana. As reported by Peprah, Agyei, and Oteng (2017), the domestic-owned banks in Ghana had different credit appraisal which has made these banks to have high current assets (loan advances) which is affecting their liquidity or high non-performing loans on their books.

Efficient working capital management is about planning and controlling current assets and current liabilities in a way that removes the risk of failure to meet due to short term obligations on one hand and avoid excessive investment in these assets on the other hand (Etu-Menson, & Ato Enyamful, 2011). This is because current assets and current liabilities are short term. The word 'current' indicates within one year,

as a result, banks must focus on its management to achieve the best outcome of acceptable profitability for the shareholders.

The eventual aim of any bank is to maximize the profit for the owners. However, protective liquidity of the bank is an important agenda too. An increase in profit at the cost of liquidity is problematic, and therefore a tradeoff objective must be set by the banks (Gadagbui & Amoah, 2016). The norm is that caring about profitability only limits the survival of the bank and at the same time caring about only liquidity introduce the problem of bankruptcy or collapse of the bank (Afrifa, 2016). As a result, working capital management and profitability must be investigated on a time series basis.

The measurements of profitability in the financial study are three. There consist of gross profit margin, net profit margin, and return on asset (ROA) (Abraham, Harris, & Auerbach, 2017). The gross profit margin looks at the sales proportionate to the gross profit. The net profit margin is also obtained when the expenses are accounted for after the gross profit, and the sales proportionate rate is determined. Lastly, the return of an asset is the determined rate based on the capital employed by the shareholders. After all, the reason for shareholders' involvement in banks is profit which impacts on their wealth maximization (Al Nimer, Warrad, & Al Omari, 2015).

Agyei and Yeboah (2011) studied 28 banks in Ghana from 1999-2008 to determine the relationship between working capital and profitability. The study mentioned that the factors affecting profitability were capital structure, size of bank, growth, the age of bank, credit, and exchange rate. They established a significant positive relationship between these factors and profitability. A similar study was done between 2005 to 2010 which resulted to the working capital management represented by cash conversion cycle opposing profitability (Yeaboh & Yebaoh, 2014). The gap identification for this study is based on the dichotomy of results obtained through these longitudinal studies of Agyei and Yeboah (2011) and Yeaboh and Yebaoh (2014). This study aimed to give confirmation results based on current situation within the Ghana banking industry. The study measured the profitability based on the return on asset and working capital management with ratios of current assets and cash ratio.

The research questions for this study were:

1. Is there a significant relationship between the current ratio and return on the asset?
2. Is there a significant relationship between cash ratio and return on the asset?

The current ratio is a measurement technique for determining the ability of banks to be able to pay their debt within a year (Prempeh, 2018). The message this ratio gives to analysts and investors is on how banks maximize the current assets to satisfy their debts and payables. It is shown by:

$$\text{Current ratio} = \frac{\text{Current Asset}}{\text{Current Liability}}$$

The cash ratio is measured by using cash and marketable security and current liability (Acharya, Mehran, & Sundaram, 2016). This measurement only focuses on how the short-term obligations of the banks are met from their cash perspective.

$$\text{Cash Ratio} = \frac{\text{Cash/Marketable Security}}{\text{Current Liability}}$$

Return of Asset ratio is a profitability measure that determines the rate of returns investors get in putting their resources in a bank (Petria, Capraru, & Ihnatov, 2015). The return on the asset figure gives investors an idea of how effective the company is in converting the money it invests into net income (Cohen & Scatigna, 2016). It is better to have a higher the return in asset number because the company is earning more money on less investment.

$$\text{Return on Asset Ratio} = \frac{\text{Net Profit}}{\text{Total Assets}}$$

Olufemi, Falope, Olubanjio, and Ajilore (2009) used a panel methodology to study the relationship between working capital and profitability among non-financial firms from 1996-2005 listed on the Nigeria Stock Exchange. The statistical application was regression and combining cross-sectional and time-series approach. The study noted a significant negative relationship between operating profit and the average collection period, average payment period, inventory turnover in days, and cash conversion cycle. However, in terms of firms' size, their study did not find a significant relationship with working capital. They recommended that firms create value for their shareholders when they manage the working capital efficiently in reducing the number of days of receivables and keep minimum inventory.

Godswill, Ailemen, and Osabohien (2018) examined working capital management and its relationship to profitability as they are relevant for the success of banks in Nigeria. During the period of their study, Nigeria banks had high non-performing loans due to the decline of oil price. Their study used panel data from ten banks from 2010-2016. They employed a random panel effect, panel fixed effects and combined it on OLS two model. To empirically carry out the analysis, panel data which consist of 10 deposit money banks in Nigeria for seven years (2010–2016) employed the panel fixed effect, random panel effect to proxy the profitability of the banks. Their profitability measure included the return of asset and returned on equity. Working capital elements are measured on net interest income, profit after tax, current ratio and monetary policy rate. Their research revealed that working capital management significantly affects the profitability of the selected banks in Nigeria. They recommended a periodic revision of the minimum capital of banks in Nigeria to mitigate the impact of inflation of the banks' minimum capital.

Lyngstadaas and Berg (2016) conducted a study in Norway to scrutinize the empirical relationship between working capital and profitability among 21,075 small firms and 84,300 medium-sized enterprises. A panel data methodology was used from 2010 to 2013. The panel data were regressed on fixed effects and a two-stage least square method. Their findings were that a reduction in the cash conversion cycle would increase profitability.

Methodology

Correlational research was employed to establish the relationship between working capital and profitability. Panel data obtained from the Bank of Ghana on the financial reports from 2016 to 2018 consisting of 25 commercial banks used for this study. The data were analyzed by using bivariate correlation in SPSS 23. The strength of the relationship is determined and interpreted upon Cohen's (1988) absolute correlations values where r = .10 to .29 is small, r = .30 to .49 is medium, and r = .50 to 1.0 is large.

The research null hypotheses are:

1. There is no significant relationship between the current ratio and return on asset.
2. There is no significant relationship between cash ratio and return o asset.

Results and Discussion

The study revealed that there is a statistically small negative significant relationship between return on asset and current ratio r = -0.27, p = .042 and return on asset and cash ratio r = -.254, p = .012. These results showed that the study reject the null hypothesis that there is no significant relationship between return on asset and current ratio and cash ratio. The result also confirmed Yeboah and Yeboah's (2014) similar study of banks in Ghana from 2005 to 2010 but contradicted Agyei and Yeboah's (2011) studies from 1999 to 2008 by using panel data methodology which discovered a positive relationship between a working capital element of cash conversion cycle and profitability. The study by Yeboah and Yeboah (2014) showed a negative relationship between working capital and profitability as shown by this study. Though the duration of their study used data spanning for a period of five years, this study used banks data for three years. The results of this study endorsed a similar study done on Nigerian Banks

that showed a significant negative relationship between return on asset and working capital management (Godswill, Ailemen, & Osabohien, 2018).

Table 1
Relationship between Return on Asset and Current Ratio and Cash Ratio

		Current Ratio	Cash Ratio
Return on Asset	Pearson Correlation	-0.027**	-0.254**
	Sig. (2-tailed)	0.042	0.012
	N	25	25

**Correlation is significant at the 0.01 level (2-tailed).

The study revealed that the relationship between working capital management represented by current ratio, cash ratio, and profitability are inversely related. This is due to the negative relationship. is the results implied that as the return of asset increases, the working capital decreases. However, the effect of the inverse relationship is small. Based on the general principle of finance, this study confirmed that higher assets reduce profitability, and increasing debt withdrawal, which further declines the profitability as noted by Mulyono, Djumahir, and Ratnawati, (2018).

Recommendation

The study recommends the banks in Ghana to seek equilibrium on working capital and profitability to prevent a possible collapse. As banks pursue profitability in the interest of shareholders' wealth maximization they should consider the cashflow position of the bank. The appraisal systems of banks should be improved in order to reduce the non-performing loans which increase profitability but affect liquidity.

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Entrepreneurial Practices of Selected Farmer-entrepreneurs in Central Aurora: Basis for Extension Proposal

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Abstract

Farmers' low income has been a stagnant issue left unaddressed in the Philippines. There are several factors that influence farm profitability which has been recognized, this includes engagement of farmers in entrepreneurship. This descriptive study assessed the current entrepreneurial practices of selected farmer-entrepreneurs in four areas, financial management, marketing, basic accounting, and production, in order to develop an extension program proposal that aims to help in the alleviation of the profitability of farmers. The sample of the study covers 197 farmer-entrepreneurs in Central Aurora, Philippines that are identified as farm-tenants only. A researcher-made questionnaire that has been validated and tested for reliability was the primary instrument. Data collected through the survey method was interpreted through descriptive statistics. Findings of the study revealed that limited knowledge of financial resources availability and inadequate understanding of business operations have led to financial problems of the respondents. Furthermore, the entrepreneurial practices of the respondents need improvement. Therefore, an extension program was proposed to enhance the current farm-entrepreneurship in Central Aurora.

Keywords: *farm entrepreneurship, entrepreneurial practices, farm profitability, Extension programs, descriptive study*

Aurora, before the sudden emersion of the tourism industry, is known as an agricultural province. Its agricultural area covers about 11.34% or 36,738 hectares of the total provincial land. Among which, majority of its suited for irrigated rice lands can be found in Central Aurora and Northern part of the province. Moreover, the financial institutions such as microfinance, rural banks, and commercial banks are strategically located in Central Aurora consisting of four municipalities, Baler, its capital, Maria Aurora, San Luis, and Dipaculao. According to its Provincial Agricultural Profile of 2016 (PAP 2016), the second largest land use of the province and the most substantial sector of the provincial economy of Aurora is agriculture. Making more than half or 62% of the population engaged in farming. Hence, farming is still the primary industry of the province.

The emerging tourism industry in Aurora is expected to create a positive impact in the lives of farmers by creating an additional market for their agricultural products, thus creating opportunities for farmers to gain additional income (Alonso, 2010). However, it is stated in the PAP 2016 that one of the issues and challenges that farmers, in general, are facing is the low farm income or profitability of its farming system. Making most of the regular farmers' annual income falls to below poverty level.

With these current financial situations of farmers in the province, a need for finding ways in helping them arises. Several factors that will help increase the income of farmers have been visited. Among which is the engagement in value-added activities or farm-entrepreneurship. Fortunately, there are farmers in the province that are already engaged in entrepreneurship. Thus, this study aims to determine the current entrepreneurial practices of the said farmer-entrepreneurs in order to develop an extension program proposal.

Unlike conventional farming, farm-entrepreneurs are creating additional ways to earn income, aside from regular farming. Features of new farmer-entrepreneurs include learning, innovativeness, open-mindedness and leadership and drive (Qiu, Zhou, & Gong, 2016). This farm diversification has also been suggested as a solution not only in improving the economic status of farmers but also to allow them to continue the farming industry (Pyysiäinen, Anderson, McElwee, & Vesala, 2006). Farmer-entrepreneurs are considered to be innovative enough and well-driven that they were able to develop entrepreneurial skills to support value-added activities (Lourenco et al., 2014).

This study aimed to identify the entrepreneurial practices of selected farmer-entrepreneurs in Central Aurora and the extent to which these practices have been implemented. Findings and conclusions of the study served as an input in the extension program proposal that will uplift farm-entrepreneurship in Central Aurora.The study answered the following:

1. What was the profile of the respondents in terms of the following:
   A. Personal Profile
      1.1. Age
      1.2. Highest Educational attainment
      1.3. Years in farming
   B. Profile of the Business
      1.4. Nature of business
      1.5. Form of business ownership
      1.6. Number of years in business
      1.7. Number of workers
2. What were the basic entrepreneurial practices of the selected farmers in terms of the following categories of activities?
   2.1. Financial Management Practices
   2.2. Marketing Practices
   2.3. Basic Accounting Practices
   2.4. Production Practices
3. What were the challenges encountered by the selected farmer-entrepreneurs in managing their business?
4. What suggestions were offered to address the challenges faced by the respondents?
5. Was there a significant difference in the sales, basic accounting and production practices of selected farmers when grouped according to their personal profile?
6. Comparison between Sales, Basic Accounting and Production Practices of the Respondents when grouped according Farmer-entrepreneurs Business Profile?
7. What extension program may be proposed to improve farm-entrepreneurship in Central Aurora?

The purpose of this study was to develop an extension program that is expected to significantly contribute in the uplifting of farm-entrepreneurship in the province that might lead to increased farm profitability of farmers.

Theoretical and Conceptual Framework

This study model was based on a study that identifies farm-entrepreneurship (Mishra et al., 2009) as a factor that positively influences farm profitability. The study wants to address the recurring problem of farmers in general; low farm income, through the uplifting of farm-entrepreneurship. Engagement in entrepreneurship creates additional income for farmer-entrepreneurs. Hence, the first step is to recognize the entrepreneurial practices that selected farmer-entrepreneurs in Central Aurora are currently doing in order to develop an extension program proposal that aims improve their current entrepreneurial practices and will later on be passed on to regular farmers.

Entrepreneurial practices or activities vary depending on how these tasks are categorized. This study is anchored in a study previously conducted which states that entrepreneurial practices can be categorized in two ways (Pyysiäinen et al., 2006). First is to categorize it depending on the activities that are needed in order to run a business, these include financial management, marketing, production, and accounting. The second way to categorize entrepreneurial practices is to determine the characteristics needed for the activities, examples of which are growth orientation, risk-taking, and innovativeness. This study classified entrepreneurial practices based on the activities needed in running a business, financial management practices, marketing practices, accounting practices, and production practices. It limited the activities in its simplest form in order to adjust to the current farming status of the Philippines.

The study, however, limited the entrepreneurial practices in its simplest form and focused only in technical competencies and revised accordingly to adopt in the local farm setting.

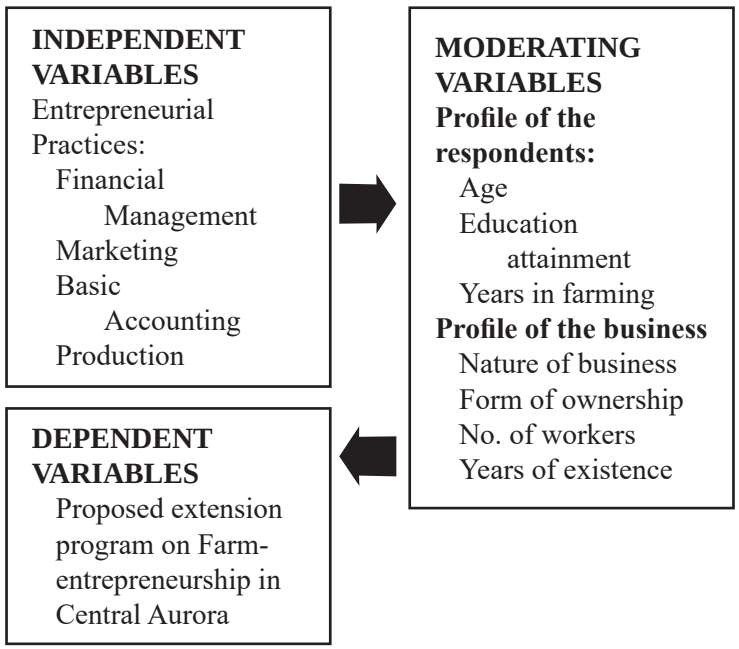

Figure 1. Conceptual Framework

Methodology

A mixed method design was employed in the study, primarily quantitative in nature but also included qualitative data. The setting of the study was limited to Aurora Province, covering only Central Aurora with four municipalities, Baler, Dipaculao, Maria Aurora, and San Luis. The respondents of the study were 197 selected farmer-entrepreneurs in Central Aurora. These farmer-entrepreneurs are engaged in both conventional farming and value-added activities and are farm-tenants only (*nakikisaka*). The data has been provided by the Municipal Agriculture Office of each municipality.

The study utilized a researcher-made questionnaire. The survey questionnaire was validated by 5 experts that included the Agriculture Technicians from the Municipal Agriculture Office of Baler, Aurora. After validation, a pretest was conducted among 20 farmer-entrepreneurs in Maria Aurora. These farmer-entrepreneurs have been excluded in the final distribution of the questionnaire. The result of the reliability test overall indicates a Cronbach Alpha of 0.822 and is considered "good". Descriptive Statistics was used in the study, primarily frequency and percentage distribution. Data on the entrepreneurial practices of selected farmer-entrepreneurs was analyzed using frequency distribution, mean, and standard deviation. The researcher used a four-point Likert scale for entrepreneurial practices.

Table 1
Four-Point Likert Scale

Rating	Step Interval Mean	Verbal Interpretation
3	2.50-3.00	Always
2	1.50-2.49	Often
1	0.50-1.49	Seldom
0	0-0.49	Never

The responses on the problems encountered as well as suggestions to address it was interpreted and ranked. The results of the focus group discussion were in narrative form.

Results and Discussion

The findings derived from the data gathered, analyzed, and interpreted revealed that majority of the respondents or 36.5% belong to 51 and above age bracket and are predominantly veteran with above 10 years of experience in farming. In terms of highest educational attainment, most of the respondents reached secondary level and college level.

Most the businesses of the respondents are agriculturally related in nature, majority or 37.6% of them has swine fattening as a business, and in terms of ownership, almost all of them or 80.2% of the respondents solely own and manage their business. With regards to the years in business, most of them or 80 respondents belong to 1 – 5 years bracket.

Entrepreneurial Practices of Selected Farmer-entrepreneurs

Financial management practices. The findings of the study as shown in Table 1 revealed that most of the farmer-entrepreneurs or 41.6% sourced out the funds for their business through borrowing money from financial institutions with interest, then primarily allocate their financial resources to the education of their children (55.3%).

Table 2
Source(s) of Funds for the Business

Source of Funds	F	%
Borrowing money from financial institution w/ interest.	82	41.6
Borrowing money from relatives (no interest)	39	19.8
From personal savings	52	26.4
Income from farming	53	26.9
Salaries of employed family members	40	20.3
Others	5	2.5

In the study conducted by Tan and Lin in 2016, there was an argument on whether the poor farmers can pay high interest rates for loans or credit. And as revealed from the findings of this study, regardless of the current financial status of farmer-entrepreneurs, still borrowing from financial institutions with interest is still the first option of majority of the farmer-entrepreneurs to source their funds for their business.

Marketing practices. Generally, 42.1% of the respondents used a straight distribution channel which is from producer directly to its consumer. Most of them market their products to their relatives, friends and neighbors, while some depend on word of mouth.

The advantage farmers can get when they sell their products directly to the consumers is the lower prices they can offer to the consumers. Lower prices can create higher demand for the products. On the oth-

er side, a study previously conducted by Park et. al. (2011) revealed that among other marketing strategies farmers' sole engagement in direct-to-consumer distribution channel reports lower income.

Table 3
Sales Practices of the Farmer-Entrepreneurs

Sales Practices	Mean	Std. Deviation	V.I.
Cash	2.223	.9694	Often
Cash on Delivery	1.599	1.1004	Often
Installment payment	.716	.8633	Never
Consignment	.914	.9988	Seldom
Discounted when installment is paid in advance	.863	.9723	Seldom
Overall	1.263	.6519	Seldom

In terms of sales practices, as shown in Table 3, respondents often used cash basis in their business with a mean of 2.223 and a standard deviation of 0.9694. With this practice, money is readily available and can be used as revolving fund for the business. It also offers less risk of having uncollected accounts from their customers.

Basic accounting practices. As seen on Table 4, the respondents are often engaged in all of the basic accounting practices. Recording all purchases has the highest mean of 2.132 with a standard deviation of 1.0512, followed by separation of business money from family needs with a mean of 1.731. Setting target profit per month and setting specific mark-up for products has a mean of 1.665 and 1.614, respectively. Moreover, keeping records of products sold or produced has a mean of 1.569 with a standard deviation of 1.1569 can also be verbally interpreted as practiced often by the respondents. Lastly, separating money from the business and farming is often practiced by the respondents with a mean of 1.548.

Table 4
Basic Accounting Practices of the Farmer-Entrepreneurs

Basic Accounting Practices	Mean	Std. Deviation	V.I.
Records all purchases	2.132	1.0512	Often
Set target profit per month	1.665	1.0249	Often
Set specific mark-up for products	1.614	1.0659	Often
Separates money from the business and farming	1.548	1.0945	Often
Separates business money from family needs	1.731	1.1220	Often
Keep records of products sold or produced	1.569	1.1569	Often
Overall	1.7098	.75834	Often

Further perusal of the data, revealed that among the five basic accounting practices, recording all purchases has the highest mean. This indicates that farmer-entrepreneurs are aware that this is a good entrepreneurial practice. Records will serve as their reference when the need arises. The practice of record keeping was reflected in the study of Kahan (2012). Written budget preparation is one of the strategies adopted by the respondents in their business operation.

The other basic accounting practices often used by the respondents were setting target profit per month. This is a good practice since on a regular basis they would know if their target profit was achieved. If not, they can think of other strategies that can help them achieve their goal.

Other practices include setting specific markup for products, separating business money from personal needs and keeping records of products sold.

Implementing the above-mentioned practices will be very useful in determining if the desired results were obtained. These will also help them determine the real profit received since personal finance was separated. As well as, accounting information is crucial determinant of a success or failure of a business (Amidu, Effah, & Abor, 2011), thus, low level of bookkeeping or lack of knowledge in accounting may create gap to its importance (Argiles & Slof, 2001).

Production practices. Table 5 shows that with a mean of 2.345, the respondents always ensure quality of the output they produce. Farmer-entrepreneurs weren't after profit alone but they ensure that the products produced is of quality. Quality products delight customers and may lead to repeat sales from satisfied and loyal customers.

Production time was considered crucial by farmer-entrepreneurs in their business operations. They managed production time, to know when to produce, when to buy, and when to sell as the law of demand and supply always may affect the income of the farmer-entrepreneurs. The respondents were aware that if the supply is high and the demand is low, the price is low. Right timing may lead to higher profits.

In conclusion, these production practices when always implemented by the farmer-entrepreneurs can contribute to their business success. This has been supported by the study conducted by Arabiun in 2014, where it is stated that commitment in production management is important, because it is relative to creation of goods and services.

In the study of Lourenco et. al. (2014), it was emphasized that farmer-entrepreneurs should practice entrepreneurial activities more than often, or always in order to be a successful farmer-entrepreneur.

Table 5
Production Practices of the Farmer-entrepreneurs

Production Practices	Mean	Std. Deviation	V.I.
Ensures quality of output produced	2.345	0.9162	Always
Manages production time	1.944	1.1212	Often
Keep records of raw materials or inputs used	1.670	1.1727	Often
Keep records of other production expenses	1.736	1.1255	Often
Overall	1.9239	0.84548	Often
Keep records of products sold or produced	1.569	1.1569	Often
Overall	1.7098	.75834	Often

Challenges Encountered by Farmer-Entrepreneurs in Managing Their Business

As revealed in Table 6, insufficient funds/capital is the top (rank 1; 1.964) problem that has been encountered by the respondents. It is followed by the lack or insufficient knowledge in business operations with a mean of 2.787. Problems regarding typhoons, flood, or other calamities ranked 3rd (3.162) among the challenges, this presumably is due to the fact that Central Aurora is a typhoon prone area.

Among the problems given, a dishonest personnel ranked the lowest (7th) with a mean of 4.67 is in consonance with the previous findings that the majority of the respondents do not have workers and solely own and manage their business.

Table 6
Challenges Encountered by the Farmer-Entrepreneurs

Challenges/Problems	Mean	Std. Deviation	Rank
Insufficient funds/capital	1.964	1.9043	1
Insufficient knowledge in business operations	2.787	1.7395	2
Location of financial institutions offering credit	3.492	2.0693	4
Typhoon, flood or other calamities	3.162	2.3913	3
Poor quality products due to pests	3.706	1.9521	5
Incompetent personnel	4.310	2.4413	6
Dishonest personnel	4.670	2.5168	7
Mean	3.4416	1.35827	

Suggestions in Addressing Current Problems and Challenges

This part of the study summarized the results of the focus group discussion (FGD) conducted among selected farmer-entrepreneur who voluntarily participated in the FGD. There were three (3) FGDs conducted and 69 farmer-entrepreneurs attended.

The following were the suggestions and recommendations of the farmer-entrepreneur in order their current problems:

1. Financial support and assistance from the government. The farmer-entrepreneurs firmly believed that if they can only be provided in their farm entrepreneurship endeavor, they will be more productive, will have better income, will be able to expand their business and provide employment to other individuals in their community.
2. Regular trainings and seminars on entrepreneurship. They suggested that there should be proper communication of these trainings and seminars so that many will benefit from it. They also recommended that these seminars and trainings should help them improve their knowledge and skills in farm-entrepreneurship and that should be conducted regularly and continuously.
3. The third recommendation of the farmer-entrepreneurs was the reduction in interest rate. The current interest rates on Agricultural Loans of Land Bank of the Philippines are 8.5% per annum for short term loans and 9.5% per annum for long term loans. Low interest rates will motivate more farmer-entrepreneurs to engage in profitable activities since the cost of production will be lower. When the cost of production is low, they can pass on the benefit to the final consumer through lower prices; lower prices would lead to increased demand.

Other suggestions were assistance of the government to increase market linkages as well as to expand the market for farmer-entrepreneurs, some suggested that government unit should have focus on the small entrepreneurs like the farmer-entrepreneurs and lastly, a respondent stated that cooperation within the organizations is also needed.

These suggestions of the respondents were coherent with the findings of the study that identified insufficient funds/capital is the number 1 problem they are facing followed by insufficient knowledge on business operations. Thus, the suggestions of the respondents are primarily solutions that will address these identified challenges of farmer-entrepreneurs.

Comparison Between Sales, Basic Accounting, and Production Practices of the Respondents When Grouped According to Farmer-Entrepreneurs Personal Profile

Age. The computed f-value for sales practices is 1.074. Taken as a whole the computed *p*-value for sales practices is 0.361, which is greater than 0.05 level of significance. Thus, there are no significant differences among the sales practices of the respondents when grouped according to their age.

When it comes to basic accounting practices and production practices, the computed f-value is 0.394 and 0.490, respectively. They also have *p*-value computed as 0.757 for basic accounting practices and 0.690 for production practices. Both *p*-value is less than 0.05 level of significance, which concludes that, the farmer-entrepreneurs responses on both basic accounting practices and production practices when grouped according to age brackets are not significantly different.

Therefore, regardless of the age of the respondents, they have the same sales, basic accounting and production practices. The null hypothesis that there is no significant difference on the sales, basic accounting and production practices was accepted.

Highest educational attainment. The responses on sales practices and production practices have a computed f-value of 2.604 and 1.625, respectively. The *p*-value computed for sales practices is 0.053, while, *p*-value for production practices is 0.185. Both practices have a *p*-value greater than 0.05 level of significance; thus, this indicates that there is no significant difference in the sales and production practices of the farmer-entrepreneurs when grouped according to their educational attainment.

On the other hand, f-value on basic accounting practices of the respondents is 2.868, and the computed *p*-value is 0.038 which is less than the 0.05 level of significance. Therefore, it can be concluded that there is a significant difference on the basic accounting practices of farmer-entrepreneurs depending on their highest educational attainment.

This further implied that education is crucial in basic accounting practices for it involves critical thinking skills and calculations.

Data revealed that regardless of the educational attainment there was no significant difference in their sales and production practices but there's a significant difference when it comes to basic accounting practices. The null hypothesis is rejected.

Education contributed to the success of farmers (Warren, 2004). The data further agreed that farmer education is a factor that positively influence success in farm profitability (Panda, 2015).

Years in farming. The computed f-values for sales, basic accounting and production practices are 0.754, 1.988 and 0.746, respectively. While *p*-value for sales practices is 0.521, 0.117 for basic accounting practices and 0.526 for production practices. All *p*-value for the three entrepreneurial practices are greater than 0.05 level of significance. Therefore, there is no significant difference among the sales, basic accounting, and production practices of the respondents when grouped according to years in farming.

In conclusion, the null hypothesis is rejected because there are significant differences on the basic accounting practices of the respondents when grouped according to their highest educational attainment. This supports the findings of Rosario and Potts (2016) wherein educational background is a determinant of farmers' entrepreneurial attitude.

Comparison between Sales, Basic Accounting, and Production Practices of the Respondents When Grouped According Farmer-Entrepreneurs Business Profile

Forms of business ownership. The computed *p*-value for sales practices is 0.449, which is greater than 0.05 level of significance. Thus, there are no significant differences among the sales practices of the respondents when grouped according to their forms of business ownership.

When it comes to basic accounting practices and production practices, the computed *p*-value is 0.268 and 0.265, respectively. Both *p*-values are less than 0.05 level of significance, which concludes that the farmer-entrepreneurs responses on both basic accounting practices and production practices when grouped according to forms of business ownership are not significantly different.

Number of years in business. For number of years in business, the computed *p*-value for sales practices, basic accounting practices, and production practices is 0.087, 0.872 and 0.375, respectively. Hence, the *p*-value of these practices is greater than 0.05 level of significance. Therefore, the farmer-entrepreneurs responses on both basic accounting practices and production practices when grouped according to forms of business ownership are not significantly different.

Number of workers. Basic accounting and production practices of the respondents, with *p*-value of 0.015 and 0.042, respectively, have significant differences when grouped according to the number of workers. However, when it comes to the sales practices, it has a *p*-value of 0.501 which is greater than the significance level 0.05, thus there are no significant differences among the sales practices of farmer-entrepreneurs when they are grouped accordingly.

In conclusion, the null hypothesis is rejected, because there are significant differences among the basic accounting and production practices of the respondents when they are grouped according to the number of workers in their business.

Proposed Extension Program for Selected Farmer-Entrepreneurs in Central Aurora to Improve Their Financial Condition

Findings of the study imply a need to develop an extension program that will enhance the farmer-entrepreneurs entrepreneurial capacity. The farmer-entrepreneurs will be considered the pioneers of the program. They will be well-oriented on the concepts and importance of entrepreneurial skills, qualities and competencies. It will also motivate these pioneers to have continuous learning and full engagement in entrepreneurship.

The proposal extension program was designed to equip the recipients with the necessary skills, qualities and competencies in entrepreneurship. The trainings and seminars will be guided by the Farm Management extension guide by Kahan (2012).

The first phase is the entrepreneurship campaign that will focus on engaging farmer-entrepreneurs on the benefits of entrepreneurial practices, qualities and competencies in the profitability of their business. It involves three steps: (a) orientation about the purpose, coverage and benefits of this extension program; (b) assessment of their current concept of entrepreneurship; and (c) assessment and report on the actual practices, qualities, and competencies applied in their current businesses.

The second phase will cover the seminar and training proper. First step on this phase will include literacy seminar on the theories on entrepreneurship that will introduce them to a deeper knowledge on entrepreneurship including entrepreneurial qualities, practices, and competencies. The training proper will cover the integrating qualities and competencies of a farmer-entrepreneurs presented by Kahan in 2012 as well as the actual practices needed that include the financial management practices identified by Cornell University, and will generally be guided by the farm management extension guide by Kahan (2012). Aside from that, the extension program module, training, seminar and action plan will be validated by the Agriculturists of Central Aurora upon the approval from the host institution (ASCOT).

The third phase would be the transfer of knowledge from the pioneers to the regular farmers. It aims to motivate these regular farmers to be involved in farm-entrepreneurship not just by seminars and training, but primarily by showcasing success stories of the pioneer farmer-entrepreneurs.

Farm-entrepreneurship Extension Program
"Equip. Empower. Establish"

Rationale. Farm-entrepreneurship is an emerging area in agriculture. It has been considered as a factor that positively influences farm profitability (Mishra et. al., 2009). It is about creating additional ways to earn concurrently with farming.

In Central Aurora, it has been identified that there are already farmer-entrepreneurs that are basically engaged in entrepreneurship. However, this study has revealed that most of the farmer-entrepreneurs even though are currently practicing basic entrepreneurial practices often, are still in need of additional support to improve their businesses. These support mentioned include request for seminar and training regarding livelihood and entrepreneurship, as well as financial assistance.

This entrepreneurship training program will primarily focus on enhancing and improving the current entrepreneurial skills, practices and competencies of the participants. These farmer-entrepreneurs will be treated as pioneers in farm-entrepreneurship in Central Aurora. They will be the first recipient of the

extension program, and will later on pass their knowledge to other farmers. It also aims to engaged young individuals in farm-entrepreneurship by linking social media and ICT in the trainings and seminars.

This extension program generally aims to develop current state of farm-entrepreneurship in Central Aurora.

Components of the program. This is a 3-year extension program that includes 3 phases namely: Entrepreneurship Campaign "Equip", Entrepreneurship Seminar and Training for Pioneers "Empower" and Transfer of Knowledge "Establish".

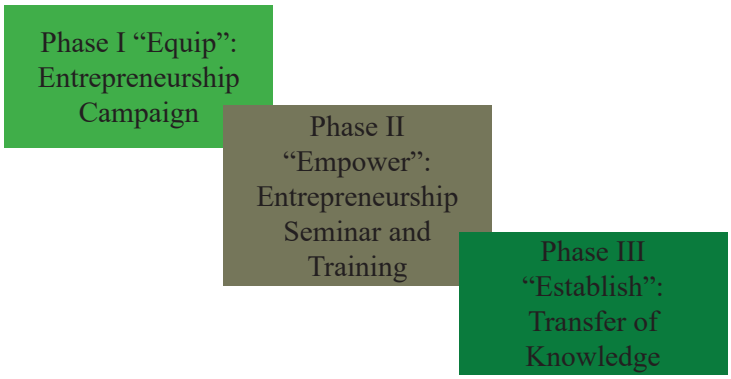

Figure 2. Components of the Proposed Extension Program

Plan of Action:

Phase I "Equip": Entrepreneurship Campaign

Objective	Strategies and Activities	Title of Activity	Time Table
To equip pioneers with deeper understanding of the concept of farm-entrepreneurship.	1. Orientation about the program	"Farm-entrepreneurship Extension Program Orientation : For Prioneers"	January 2020
To assess the current entrepreneurial competency of farmer-entrepreneurs in central Aurora.	2. Drawing the concept and raising more depth awareness about entrepreneurship. Regular dissemination of IMs about farm-entrepreneurship	"Personal Entrepreneurial Competency Assessment and Development – *Know your Entrepreneurial Self Workshop*"	February 2020
To engage young individual in farm-entrepreneurship		"Personal Development Workshop"	
		"The Way-of-Life of a Farmer-Entrepreneur"	
		"Fundamentals of Entrepreneurship"	
		"Role of Social Media in Agriculture"	
	3. Monthly meeting in each municipality about the current status of farmer-entrepreneurs.	"Monitoring of Current Status of Farmer-entrepreneurs"	March to April 2020

Resources:

- Speakers/ Technicians/ Facilitators
- Budget
- Conference Rooms
- Linkages to Municipal Agricultural Offices (MAOs)/ Local Government Unit
- Host Institution (ASCOT)
- IMs

Phase II "Empower": Entrepreneurship Seminar and Training

Objective	Strategies and Activities	Title of Activity	Time Table
To empower farmer-entrepreneurs in Central Aurora by improving their entrepreneurial skills and practices	1. Monthly Seminar on entrepreneurship	"Entrepreneurship in Farming"	May to August 2020
		"The Business Environment: Basic Concepts on Environmental Scanning"	
		"Entrepreneurial Qualities for Farm-entrepreneurship"	
	2. Training workshop on entrepreneurial practices	"Business Management in Farming: Focus on Marketing Practices"	Sep. 2020
		"Financial Management, Literacy and Awareness for Farmer-entrepreneurs"	Oct. 2020
		"Business Planning and Decision-making"	Nov. 2020
		"ICT for Agriculture"	Dec. 2020
	3. On-farm or individual visits of agricultural technicians and facilitator		
	4. Presentation of improvement and application of knowledge from the seminar and trainings	"Presentation of Outputs: Empowered Farmer-entrepreneurs"	April 2021
	5. Follow-up monitoring of technicians and facilitator	"Final Assessment for Pioneer Farmer-Entrepreneurs"	May to June 2021
	6. Validation of the output of the seminars and trainings		July 2021

Phase III "Establish": Transfer of Knowledge

Objective	Strategies and Activities	Title of Activity	Time Table
To establish farm-entrepreneurship in Central Aurora	1. Orientation about farm-entrepreneurship on regular farmers	"Farm-entrepreneurship Extension Program Orientation: For Regular farmers"	Aug. 2021
To expand farm-entrepreneurship in Central Aurora by passing on knowledge and skills to regular farmers.	2. Presentations and sharing of actual outputs from the previous trainings of pioneers	"Presentation of Farm-enterprise of Pioneers"	Sep. 2021
	3. Training workshop on possible livelihood and farm-enterprise	"Identifying Business Opportunities"	Oct 2021
	4. Introduction of the Entrepreneurship campaign to regular farmers	"Engaging Regular Farmers to Farm-entrepreneurship"	Nov. 2021

Conclusions and Recommendations

Conclusions

Based on the findings, the following conclusions were drawn:

1. The younger generation is not attracted in farm-entrepreneurship, thus becoming a threat to the sustainability of farm-entrepreneurship in the province.
2. The success of the business operations of the farmer-entrepreneurs can be achieved through the right application of entrepreneurial practices and appropriate entrepreneurial competencies.
3. Limited knowledge on financial resources availability as well as insufficient knowledge on business operations has led to financial problems of the farmer-entrepreneurs in Central Aurora.
4. Seminars and trainings on entrepreneurship or business operations are needed to address current challenges experienced by farmer-entrepreneurs in Central Aurora.
5. Educational attainment and number of workers of the farmer-entrepreneurs in Central Aurora influenced their basic accounting practices.
6. Sales, basic accounting, and production practices of farmer-entrepreneurs in Central Aurora need improvement.

Recommendations

Based on the conclusions of the study, the following recommendations were endorsed:

1. Institutions, especially Municipal Agriculture Offices (MAO) and extension workers, should implement programs and try to link social media and ICT to motivate younger farmers to engage in farm-entrepreneurship.
2. Financial literacy program should be provided to farmer-entrepreneurs to make them more effective, efficient and productive, as well as financial assistance from the government and access to credit with low interest rate.
3. Regular seminars and trainings about farm entrepreneurship or business operations should be provided to the farmer-entrepreneurs in Central Aurora.
4. Similar studies should be conducted in other agricultural areas to validate the result of the study.
5. The researcher's proposed extension program should be implemented by the proper authorities to help the farmer-entrepreneurs improve their income and quality of life, as supported by the study of Kahan in 2012 that extension programs are needed to enhance entrepreneurial competencies of farmer-entrepreneurs.

6. Further studies on sustainability of farm-entrepreneurship in the province and nearby areas should be conducted.

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Barriers to Full Implementation of Total Quality Management among selected ISO Certified Universities: Effects to Public and Private HEIs

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Abstract

This study examined the barriers encountered by International Organization for Standardization (ISO) certified Higher Educational Institutions (HEIs) in Manila, Philippines in implementing Total Quality Management (TQM) to their respective organizations to gain comprehensive understanding on the challenges in service industries like schools. The study identified the barriers in HEIs and suggested workable and realistic actions for improvement that might help the educational organizations overcome identified barriers to sustain the ISO standards. The study was participated by 16 respondents and they are TQM SMEs, TQM Coordinators and teaching and non-teaching employees with direct involvement and participation to the quality initiatives from each participating university. Mixed method was adopted to examine the barriers in TQM implementation of ISO Certified HEIs. To gather the data, the researcher used the descriptive research method to check whether to accept or not the alternative hypothesis that the barriers identified to have a significant effect to the implementation of TQM of selected ISO Certified Schools in Manila. For the problem on determining the respondent's profile, frequency and percentage distribution was used. A factor analysis was conducted after checking the reliability using the Cronbach alpha and correlations of the data set to check the weights of the barrier categories set for this research. The findings indicated that structural and human resource barriers among the others got the least rank in terms of agreement of the respondents which was also prioritized in the meaningful plan for improvement. The plan sought to help not just ISO certified schools but Higher Education in general pertaining to implementation of TQM to provide quality service and education.

Keywords: *TQM, higher educational institution, quality assurance in organizations*

Total Quality Management (TQM) as a management strategy aims to enhance customer satisfaction and organizational performance by providing high-quality products and services through the participation and collaboration of all stakeholders, teamwork, customer-driven quality, and continuously improving the performance of inputs and processes by applying quality management techniques and tools (Mosadeghrad, 2014). Although TQM has many definitions and it varies even from the TQM Gurus, its soul and idea stay the same.

Each of the pioneer of TQM provided foundational building blocks to focus on TQM. The Gurus have contributed greatly and excellently in the field of business in terms of quality management as their theories could be used to innovate TQM tools and techniques.

When people think of the quality processes that are often used today, five men stand out. W. Edwards Deming was all about process and not people. He suggested that up to 85% of the total cost of quality was a management problem. Whereas Joseph M. Juran is a notable quality guru for his fitness for use

work which is customer focused, reflecting the customer's and stakeholder's view of quality and he is also distinguished for his quality trilogy. While the other guru, Walter Shewhart is famed for his control charts and variance reduction. He was the originator of the Plan-Do-Check-Act cycle. As for Philip Crosby, he believed that it makes sense to make things right the first time and he called it the zero defects principle. The principle insinuates that costs will increase when there is poor quality planning. While for the Japanese, Kaoru Ishikawa, the man behind the well-known fishbone diagram or cause and effect diagram, made a significant contribution to quality improvement and was one of the first tools in the quality management process.

In this era wherein the competitors are always looking for an opportunity to entice and win customers, TQM is also viewed as a management strategy that may help to attract new customers and retain the existing ones. As a strategy, it also helps strengthen internal processes and improve relationship within suppliers and other stakeholders. TQM is imperative to a business success specially to manufacturing industries which has a hefty emphasis on processed documents, but TQM has been applied as well to service institutions overtime.

In an aggressive environment, organizations are compelled to develop and apply methods within global context. TQM has been distinguished as a management doctrine and a belief that has the support of many organizations progressing towards reaching splendid businesses (In'airat, 2014). TQM that encourages organization to have an excellent teamwork, quality-mindedness, continuous learning, and constant improvement will eventually result to a successful business operation.

According to Govindarajan (2013), TQM is an enhancement of the traditional way of doing business. It is a proven technique to guarantee survival in world class competition. Moreover, changing the action of management, action and culture of the whole organization will be transformed as well. TQM stands for Total – Made up of the whole, Quality – Degree of excellence a product or service provides; and Management - Act, art or manner of handling, controlling, directing etc. (Govindarajan, 2013).

Although the concept of TQM was advocated by Dr. W. Edwards Deming in the late 1950s in the USA and was developed for manufacturing organizations, the philosophy has gained popularity as well to other service institutions including Higher Education Institutions (HEIs) over the past decades. The educational institutions of today are concerned with quality. With the emergence of competition among schools, the identification of the academic institutions that have a high level of quality has become a crucial issue. This situation is not only taking place in the Philippines; the concern for quality is universal. For this reason, quality is the single most important issue in education, business, and government (Pineda, 2013).

HEIs play a significant role not just in development of a student's success in life but has a crucial part in developing nation's economic and social environment. In this era where in quality has been a key area in ensuring customer requirements and expectations, implementing effective quality management system in an organization has seen to be a competitive advantage.

Quality can be honored only through lip service if the concept remains an intangible, glittering generality. If quality cannot be expressed in operational, measurable terms, it can remain an abstraction and can be relegated into the status of un-attainability (Pineda, 2013). For this reason, many HEIs are geared toward attaining certifications and seek to comply with the standards to attain the highly coveted ISO certification.

Background of the study

Continuous improvement (*e.g.,* Lean, Six Sigma, the Model for Improvement) is most often associated with industries such as manufacturing, business, and healthcare. Many organizations in these industries have adopted formal improvement methodologies, often with notable results. The field of education, however, has been slow to take up such approaches. This is partly due to the fact that schools and districts are not organized in ways that promote continuous learning: work is often done in silos, policy demands push for quick results, data is not provided frequently or quickly enough for it to meaningfully inform and change practice, and poor outcomes are viewed as individual failures rather than a by-product of a misaligned system (Park, Hironaka, Carver, & Nordstrum, 2013).

Tertiary education is always changing and quality initiatives and the activities to ensure quality education being provided to stakeholders must change and adapt quickly to ensure it will be relevant. It is a process that takes time and continuous effort. In the Philippines, growing number of organizations particularly the HEIs has adopted the philosophy of TQM and has appreciated the importance of ISO certification not just to guide the institutions in terms of aligning to standards but have acknowledged the positive impact it may bring to the organization and to its customers/stakeholders.

ISO Certified HEIs in the Manila are growing and having ISO certification does not necessarily mean that an organization practices a holistic quality culture and it cannot guarantee customer satisfaction. A literature review on the standards' effectiveness reveals two schools of thought. One school of thought supports the view that the standard offers a good first step towards TQM and excellence, while the other school of thought is based on the view that organizations are mainly interested in quick and easy certification without real commitment to quality, leading to the development of "static" quality systems that cannot guarantee customer satisfaction (Gotzamani et al., 2007).

A study in United Arab Emirates was performed to shed some light on the ISO 9000 implementation in the UAE as an effective process approach model through the exploration of the drivers for implementing the standard. It reveals that promotional reason was witnessed as the most important driver for ISO 9000 implementation while secondary drivers like strong belief in the system/process approach model and thinking was evidenced from the collected data as well as improving internal efficiency and fulfilling customer requirements to do business are having less weight in the decision to pursue ISO certification but still considered to be important drivers. Evidently, ISO 9000 was perceived as a marketing tool to benefit the organization's success (Magd & Nabulsi, 2012).

Certification can be a useful tool to add credibility, by demonstrating that your product or service meets the expectations of your customers. ISO-certified organizations are still experiencing struggles in implementing TQM. After all, TQM is a never-ending process. Gotzamani et al. (2007) states that the ISO standards' long-term contribution to the performance of an organization may be positive, neutral or negative depending on the way the companies choose to implement them.

Statement of the Problem

The main thrust of the study was to identify the barriers in implementing TQM in Selected ISO-certified universities in Manila which could serve as a basis for improvement in HEIs.

Specifically, this study sought to answer the following questions:

1. What was the profile of the school in terms of
   1.1 Type of Institution
   1.2 ISO certification date of issue?
2. What was the demographic profile of the respondents in terms of
   2.1 Highest Educational Attainment
   2.2 Length of Service
   2.3 Present Position in the Institution?
3. What was the assessment of the respondents in the barriers to full implementation of TQM among selected ISO certified HEIs in terms of:
   3.1 Strategic Barriers
   3.2 Human Resources Barriers
   3.3 Contextual Barriers
   3.4 Procedural Barriers
   3.5 Structural Barriers
   3.6 Certifying body problems?
4. What was the significant difference of the assessment of the respondents to the full implementation of TQM when grouped in terms of:
   4.1 Public ISO-certified universities

4.2 Private ISO-certified universities when grouped according to profile?

5. What were the effects of the barriers to the full implementation of TQM among selected ISO-certified HEIs?
6. Based on the results of the study, what can be recommended to overcome the barriers?

Objectives of the Study

In the light of the importance of TQM among HEIs in the Philippine setting, the proposed topic has the following objectives:

1. To identify the barriers in implementing TQM of the ISO-certified schools in Manila and be able to assess the barriers;
2. To suggest workable and realistic actions on the barriers identified for improvement;
3. To overcome the existing barriers of HEIs in implementing TQM to sustain the standards.

Statement of the Hypotheses

Ho – Barriers identified have no significant effect to the full implementation of TQM among the selected ISO certified schools in Manila.

Methodology

Research Design

The primary objective of this research is to identify the barriers in implementing TQM in ISO certified universities in Manila and suggest workable and realistic actions for these institutions' continuous improvement. A combination of quantitative and qualitative research methodology was adopted to examine the barriers in TQM Implementation of ISO-certified HEIs. To gather the data, the researcher used the descriptive research method.

Descriptive method is a design involving observing and describing the behavior of subjects without influencing it in any way (Suttleworth, 2008). A structured questionnaire survey was formulated to collect the quantitative data to study the variables.

The researcher reached out to four ISO-certified universities across Manila City to evaluate existing barriers in TQM implementation in their respective institutions through survey and interviews with targeted audience of each university. The barriers were then regrouped according to the categories of barriers presented in the conceptual framework to analyze and assess the existing barriers in TQM implementation in educational environment and find ways how to overcome it.

Setting of the Study

The research took place in Manila, Philippines particularly in the University Belt area wherein majority of the universities in the Philippines are found. Participating schools are ISO-certified Higher Educational Institutions in Manila City, Philippines. The selected schools were a mixture of private and public institutions.

The University Belt is the unofficial name of a subdistrict in Manila, Philippines referring to the area where there is a high concentration or a cluster of colleges and universities in the city. The University Belt is commonly understood as the one located mainly in San Miguel district. But technically it also includes nearby places such as Sampaloc, Quiapo, and Santa Cruz. Generally, it includes the western end of España Boulevard, Nicanor B. Reyes Street (formerly Morayta Street), the eastern end of Recto Avenue (formerly Azcarraga Street), Legarda Street, Mendiola Street, and the different side streets. The colleges and universities found here are at a short walking distance of each other.

Respondents of the Study

The respondents of this research were school administrators, TQM/Quality coordinators, and teaching and non-teaching employees with direct involvement and participation to the quality initiatives of

respective institutions. The number of respondents per institution varies depending on the number of work-force with direct involvement to the TQM/Quality initiatives each university has.

Below are the participating universities of this research:

Private ISO-certified HEIs

1. Centro Escolar University
2. San Beda University

Public ISO-certified HEIs

1. Philippine Normal University
2. Technological University of the Philippines

The following are the criteria for the universities and respondents of each university for this research:

The criteria for selection of the university:

1. Must be a school within Manila City
2. Must be ISO-certified HEI

The Criteria used for selecting respondents from the university:

1. Must have a direct involvement to the quality plan/initiatives of the university
2. Must be knowledgeable of the ISO standard
3. Must be part of the university for not less than 1 year
4. Must be willing to answer the questionnaire and be interviewed

The criteria used for selected respondents for the focus group discussion:

1. Must be an employee of the participating university
2. Must be an employee under departments that are directly linked with the implementation of TQM of the university
3. Must be willing to participate with the focus group discussion

Data Gathering Procedures

Majority of the information collected for this study came from different sources such as online articles and journals pertaining to TQM Implementation and barriers to several industries and ISO Standards.

The researcher used a self-made questionnaire as a means of collecting data. The results aimed to assess the significance of barriers in the TQM implementation among ISO-certified universities that will be utilized for the improvement plan by the researcher.

The questionnaire for qualified respondents comprised of 30 questions covering the 6 Independent variables presented in the conceptual framework namely Strategic Barriers, Human Resource Barriers, Contextual Barriers, Procedural Barriers, Structural Barriers, and certifying bodies' related problems. The questions are not categorized in the survey to avoid self-serving bias. Additionally, there were questions added in the survey that were already validated and used for an Automotive Industry in Malaysia from the study of Hilma Raimona Zadry and Sha'ri Mohd Yusof (2006) entitled "Total Quality Management and Theory of Constraints Implementation in Malaysian Automotive Suppliers: A Survey Result".

The subsequent procedures were followed by the researcher to obtain relevant data and information to address the objectives of the study:

1. The researcher sought the approval of Human Resource Department or University Research Office to pave way for the distribution of survey to the targeted respondents
2. The researcher had an Initial Interview with the School Administrator/TQM SME/Quality Council Head to validate the questionnaire and know who the qualified respondents are to the study based on the criteria set. Also, the researcher gathered data for the profile of school.

3. Structured questionnaire survey was distributed randomly to the qualified respondents in each participating University.
4. After the data collection, several steps were taken to analyze the data and ensure that these will be useful and valid for the study. First, a general analysis was performed to check for errors, missing values and outliers in the dataset. Second, the demographics were calculated to check the distribution of age, gender, civil status, highest educational attainment, length of service, present position in the institution, etc. among the respondents.

Sampling Technique

Purposive sampling technique was used in this research. A purposive sample is a non-probability sample that is selected based on characteristics of a population and the objective of the study. Purposive sampling is also known as judgmental, selective, or subjective sampling (Crossman, 2018).

Specifically, the researcher utilized the total population sampling type. With total population sampling, a researcher chooses to examine the entire population that has one or more shared characteristics. For this study, respondents are those who has a direct involvement to the quality initiatives and plans of the university. This kind of purposive sampling technique is commonly used to generate reviews of events or experiences, which is to say, it is common to studies of groups within larger populations (Crossman, 2018).

Research Instruments

The instrument used consists of 3 parts: Part I consists of the demographic profile of the respondents such as age, gender, marital status, length of service, present position in the University, income, and highest educational attainment.

There are 2 sections under Part II. The first section deals with opinion of the respondents on TQM while Section 2 attempts to evaluate the implementation barriers. The respondents assessed if presented barriers significantly affect and can be considered a hindrance in the TQM implementation of the school. Each likelihood of barriers was answered by the respondents through a 4-point Likert Scale to measure their observations (4 – *Strongly Agree*, 3 – *Agree*, 2 – *Disagree*, 1 – *Strongly Disagree*).

Part III consists of statements and other comments of the respondents to gather additional barriers they have experienced that are not covered by the questionnaire. This may be useful in evaluating the barriers in the implementation process of TQM to their respective school.

Validation and Reliability Test of the Research Instrument

The questionnaire was validated by the SME in TQM/Quality Council Head to ensure that the questions to be asked regarding the barriers in TQM implementation are quantifiable. Cronbach alpha was used for the calculation to serve as proof of the reliability of the instrument. The overall Cronbach alpha result is .966 which is above .75.

Research Protocol

A letter seeking permission to conduct and administer the study was sent to the different universities in Manila, Philippines through electronic mail. Then the questionnaire was distributed to the respondents. Online Survey powered by Google Forms and the link were provided to the targeted respondents of each institution. For cases wherein personnel who does not have access to Google Form Online and opts to answer the survey offline, printed questionnaire was provided.

Statistical Treatment of Data

The use of different statistical tools for data analysis depends on the nature of data and hypothesis to examine the barriers in implementation of TQM in schools. For the problem on determining the respondent's profile, frequency and percentage distribution was used.

A factor analysis was conducted after checking the reliability using the Cronbach alpha and correlations of the data set. The factor analysis was used to check the weights of the Barrier Categories set for this research.

In addition, further analysis was done per barrier category mentioned to this study. The observation of the respondents was compared through a one-way Analysis of Variance (ANOVA). It was based on comparing the variance (or variation) between the data samples to variation within each sample. Also, the Pearson correlation coefficient statistical formula was applied to the study to measure the strength between variables and relationships.

Results and Discussion

The researcher reached out to four ISO certified universities, two are private universities and two public universities. The researcher targeted the Quality Assurance (QA) office of each university and each office has a different organizational structure when it comes to the Quality Council/Committee. Thus, the number of respondents from each university differs from the other. The researcher was able to get 50% respondents from private ISO-certified institution and 50% from public ISO-certified institution.

The researcher was able to obtain the ISO certification issuance date of the participating institutions. Private University 1 reapplied for ISO certification and was awarded for ISO – 9001: 2015 last July 18, 2017 while Private University 2 was recently granted by the ISO certification for the first time last November 29, 2018. As for the public institutions, Public University 1 was recently certified for ISO 9001:2015 last December 31, 2018, the newest ISO certified institution among the participating institution. On the other hand, Public University 2 became ISO certified last March 6, 2018 for ISO – 9001:2015.

The survey indicated that most of the respondents who participated attained bachelor's degree as their highest educational attainment during the time of survey with 43.8% while 37.6% of respondents attained Doctorate Degree, 12.5% with master's degree and 6.3% with Post-Doctoral Degree.

Majority of the respondent's tenure in their job roles are 16 years and above (43.8%) and 3 to 5 years (43.8%) while there were 2 respondents with 6 to 10 years length of service (12.5%) and no respondents from 10 to 15 years of service (0.0%).

The survey indicated that most of the respondents who participated are Administrative officers of the QA office of each university with 31.5%. There were 2 QA Staff (12.5%) and 2 Quality Heads (12.5%) respondents while the rest of the respondents have 7 different positions 6.3% for each post but are all involved with the quality plan and initiatives of their respective ISO-certified University.

As for their career levels, majority of the respondents are in support level comprising of 50% followed by management level with 25%. The study was also participated by the top and middle management with 18.8% comprised of Senior level employees and 6.3% for the leadership level

Assessment of the Respondents in the Barriers to Full Implementation of TQM

The result of the assessment of barriers shows that the ISO-certified universities, both public and private, have overall positive response when it comes to the statements provided. This reveals that the respondents of the research are not significantly affected by the barriers in implementing TQM.

However, during the focus group discussion conducted, there were concerns raised regarding the current quality systems and in the implementation of TQM. Concerns that arose were manpower, engagement of people, and resources needed in the quality initiatives.

Overall Mean for Strategic Barrier is 3.35. This translates that the participating Institutions have a clear and realistic expectation with TQM and are getting adequate support from top and middle management. Furthermore, this deciphers that the leadership practices of the respective institutions are *satisfactory*. Mosadeghrad concluded that poor leadership, inappropriate planning and unrealistic expectations were responsible for 69.9% of TQM Problems. In the case of selected ISO-certified universities in Manila, they were able to address this problem as these Strategic Barriers were properly mitigated based from the result of this study.

This also translates that the top and middle management of the participating institutions when it comes to TQM are visible and explicitly committed to quality. In the study of Sultan (2015), it was mentioned that a quality implementation program will succeed only if top management is fully committed beyond public announcement. Success requires devotion and highly visible and articulate leaders.

Human Resource Barriers got an overall mean score of 3.138 and it demonstrates that the participating institutions were somehow able to alleviate the problems related to human factor such as lack of commitment, involvement, and employees' resistance to change. In the study of Mosadeghrad entitled *Why TQM Program Fail*, it was concluded that overall developing countries reported more human resource barriers than the counterparts in developed countries.

This also translates that the opinions, feedbacks, and views of the employees are listened by the management and promotes an environment open for suggestions. The survey also reveals the good acceptance rate of employees when it comes to the concept of TQM.

However, there were concerns raised during the focus group discussion particularly in the employee shortage for public institutions because of lack of job vacancies for quality related tasks resulting to multi-tasking. Furthermore, a concern particular to recognition and rewards was brought-up that people performance will significantly increase to quality related tasks when monetary rewards are provided.

Furthermore, there were struggle raised regarding complacent employees. Due to ISO certification, it was reported during the focus group discussion that some employees tend to be complacent but is constantly reminded that quality improvement is a continuous process.

Contextual Barrier also got a satisfactory mean score of 3.363. This depicts the culture of the participating institutions towards TQM are appropriate and was nurtured in a way they will be able to achieve the highest potential by implementing TQM. This also reveals that these participating institutions have developed effective systems within organization and has embraced a well-rounded and diverse workforce.

In the statement, "I trust the top management and leaders of the University" it got a remarkable mean of 3.63 which demonstrates that they strongly agree with the statement. This is a positive remark to note considering that the participation of top management and leaders of an organization to TQM is critical. In contrast, both public and private HEIs got the same mean score of 3 for the statement "The communication within the university among employees, staff, and faculty is effective and efficient." Although the verbal interpretation suggests that they all agree with the statement, the communication system of the university should be improved continuously.

Teamwork and participation play a substantial role in TQM success because it uses teams to coordinate work. Diversity has been embraced as well based on the result of the survey and this translates that participating educational institutions do their best to create an atmosphere in which all people are valued, respected and have the same opportunities as others.

Quality of education is becoming important in the world of competitive environment. There is a need to adopt change in the educational processes to improve and stay healthy in the business of education. (Mishra, 2013).

Continuous improvement in procedures is essential to successful implementation of TQM. Procedural Barrier got a score of 3.225 and this portrays that the participating institutions are process-oriented and the quality council provides efficient preventive and corrective actions. This also shows that the participating institutions nurtures a "customer focus" approach in their operations. This is a positive note due to the fact that it is one of the 7 Quality Management Principle set by ISO 9001.

In the statement, "Our organization gives importance in focusing on effective management of processes" both public and private institutions have the same result of 3.38 mean score. This portrays that regardless of the institution, once ISO-certified, institutions significantly prioritize the importance to effective management of processes because procedures after all is the core of TQM.

Furthermore, when the statement "The additional paperwork related to new procedures and protocols due to TQM implementation doesn't affect my productivity at work" was presented, among any

other procedural related barrier, this question got the least mark with overall 3.06 mean. In the focus group discussion conducted, this was also asked, and random employees took the time as well to highlight that procedures carried out by TQM are often seen as added work and is directly and indirectly affecting their productivities.

The result revealed that universities are implementing TQM principles and practices in a way that is supported by techniques and tools. This is critical to achieve desirable results (Mosadeghrad, 2014).

As for **Structural Barrier**, it accumulated a satisfactory score of 3.125. This demonstrates that the participating institutions are receiving adequate resources needed for the implementation of TQM and the TQM Program set to the University is appropriate for the organizational structure.

Although the result of the survey has a satisfactory rate, there were challenges relating to structural barriers raised during the focus group discussion session to random employees covering physical, human resources, and financial resources. In the statement, the University has the adequate human resources for the TQM implementation, this got the lowest mean of 2.88 among this barrier type with the same result of 2.88 for public and private HEI. This depicts that the participating institutions were having concerns in terms of manpower required to do TQM-related activities.

The statement "The University has the adequate physical resources for the TQM implementation", it is noteworthy to see the difference between private and public HEI. The private got a mean score of 3.25. On the other hand, public only got a mean score of 2.63. The difference was further validated when a quality head of a public HEI raised a concern when it comes to funding needed for continuous improvement especially that budgets for state universities and colleges are controlled and monitored by the Commission of Audit (COA).

While the statement" The TQM Program set to our University is appropriate to our organizational structure" it got a good remark of 3.38. This reveals that the top management, quality heads, and leads of the university also took into consideration the existing structure of the University in adopting and implementing their respective TQM models.

Also, respondents believe that the TQM as a program set to their universities is appropriate to their current organizational structure. However, when this was asked to the focus group discussion session, random employees agreed but also shared that timeline for some quality plans needs to be adjusted.

It is also noteworthy that both private and public ISO-certified Universities have an overall mean of 3.564 for the *certifying body problems*. This signifies that they have productive and good working relationship with the accrediting agency of ISO and that the certifying agencies are competent.

This also depicts that the certifying body of ISO also looked in the long-term ability of the organization to sustain the standards not just in checking non-conformities during the audit.

Overall, based on the figures presented, Structural and Human Resource Barriers in both private and public ISO-certified Universities got the least mean scores among the other barriers. Structural barriers have 3.1 mean for Private and 3.15 mean score for Public. Human Resource barriers have 3.125 mean score for Public and 3.15 mean for Private. This indicates that the two barriers could be prioritized in the Action Plan for continuous improvement.

In the study of Ali Mosadeghrad, the developing countries reported more strategic, human resource, and structural barriers than counterparts in the developed countries. Lack of employee involvement, lack of training, lack of management support, lack of resources, inappropriate organizational culture, poor leadership, and lack of government support were the main barriers to successful TQM implementation in developing countries.

Management support, education and training, commitment of resources and employees' involvement and commitment are necessary for implementing the plan properly (Mosadeghrad, 2014). Human resource barriers greatly affect the full implementation of TQM among service institution like schools as for both public and private institutions issues such as resistance to change, complacent employees, lack of manpower and trainings are directly and indirectly affecting the quality initiatives of the schools.

Comparison of the Assessment of the Barriers When Respondents are Grouped According to School Profile

When barriers are grouped according to its type of institution, it is striking to see that there are no significant differences between private and public institutions when it comes to dealing with the implementation barriers of ISO based from the results. However, during the interview with the quality head of the public ISO-certified Universities, a quality head has raised a valid point on the difference of implementing TQM in a public institution compared to a private institution particularly on budget allocation. SUCs budget for implementing quality systems is controlled by the COA, a hindrance that falls under Structural Barrier which also got the least mean score.

Furthermore, in the study entitled "Quality Assurance in Higher Education in the Philippines" by Ruiz and Junio-Sabio (2012), they stressed points to understand better the difference of Quality Assurance Implementation from public and private institutions. First, they highlighted that SUCs' personnel practices are governed by the Civil Service Commission (CSC), therefore, quality of instruction depends on the quality of faculty being recruited which should conform with the minimum qualification standards set forth by the CSC, not like those from private institutions which exercise flexibility on the hiring of faculty. Second, SUCs are governed by the LGUs and pertinent provisions of the Local Government Code applies, which is not a concern of private institutions. Lastly, funds are limited for public HEIs than the private ones.

A regular employee from the focus group discussion session for a public institution stated that "There are limited "plantilla" (Job vacancies) and employees are making up for it even though there are contractual employees. Multi-tasking for an employee seems to be a norm because they are doing tasks beyond their agreed job descriptions because of lack in manpower. There are also financial struggles as the budget are Commission on Audit (COA) controlled because it is a public institution." The statement was agreed by the group of random employees.

What were the effects of the barriers to the full implementation of TQM among selected ISO certified HEIs?

Increased appreciation to TQM after being ISO-certified. Employees of the universities are welcoming with the idea of TQM and appreciated the positive effect it may bring to the organization while looking for improvement within their current quality systems.

Part 2 of the Survey Questionnaire aims to know the general opinion of the respondents on TQM. The questions were adopted from the study of Hilma Raimona Zadry & Sha'ri Mohd Yusof entitled "Total Quality Management and Theory of Constraints Implementation in Malaysian Automotive Suppliers: A Survey Result".

Result of the survey reveals that the respondents *strongly agree* with the statements provided about TQM. Respondents believe that TQM is an effective management philosophy in maintaining high standards of work in every aspect of the organization. One of the Quality Management Principles of ISO is improvement and it is crucial for TQM implementation. ISO declares that improvement is essential for an organization to maintain current levels of performance, to react to changes in its internal and external conditions and to create new opportunities. Furthermore, by focusing on improvement as a quality principle, it enhances the drive for innovation.

Limited funds in the implementation of TQM are affecting the participation and outputs of the employees. Mishra stated that TQM is about creating a quality culture where the goal of the staff of the institution is to delight their customer and where the structure of the institution allows them to do so (Mishra, 2013). Adequate resources are imperative in the implementation of TQM because adopting the philosophy in the strategic planning in an organization requires allocation of adequate resources for improvement.

Inappropriate organizational culture, lack of training, lack of top management support, employee resistance, poor leadership, lack of mechanisms for measuring organization's activities and lack of resources were the most mentioned barriers to TQM implementation in service industries (Mosadeghrad, 2014).

Effects of structural barriers are also felt in implementing TQM among the selected ISO certified universities for both public and private schools particularly when it comes to adequate resources needed in the implementation. Lack of training, lack of financial and human resources, and information systems where raised as well during the focus group discussion conducted.

A management level employee from a private institution commented that *"In the implementation like I said.. uhm.. kailangan mayroon kang motivating.. parang motivating something like rewards though nagbibigay naman yung institution ng ganun pero parang kasing iba pa din pag something monetary talaga. Kasi pag monetary nagiging performance based. Kasi nagiging ano sya nung tao kumbaga yung involvement nagiging 100% kasi you expect something in return pag nakagawa ka ng improvement. Mas makakapag-commit si employee pag may monetary involved."* (In the implementation like I said, we need to have motivating rewards, although in a way the institution is giving it, such as monetary rewards because these types of rewards push employees to really perform. When there's a monetary reward for the quality initiatives, the involvement of the employees boosts to 100% because they expect something in return when they create an improvement).

An employee for a public institution stressed out the lack of trainings for everyone in the institution. "*Trainings are not available for everyone but there are enough in-house training within the university and the selection process for participants are often selected based from the list identified by the Human Resource Department. Also, there are very limited training offered for contractual employees."* In contrast, an employee from a private institution heavily involved in the quality initiatives stated issues on trainings and communication system *"Sakin naman siguro, orientation to all. Not only to selected people dapat talaga aware ang lahat.. although aware naman through communications kaya lang iba eh. Kung ano kasi yung natutunan namin sa seminar and trainings, hindi kasi yun naeexperience ng iba. Kaya kung gusto natin na lahat involved, kailangan lahat I gather at I talagang train para iisa ang knowledge at para iisang objective ang nakikita at naririnig para ma meet yung objective."* (For me, orientation to all should be done and not only to selected employees so that everyone will be aware. Although employees are aware of the quality iniatives within the organization but not everyone are heavily involved. Because what we learned from seminar and trainings were not experienced by others. That's why if we want everyone to be involved, we need to gather and train everyone to gather knowledge needed for TQM and for achieving the quality objectives.

Public educational institutions rely on the government funding while on the other hand, private institutions are profit-driven in nature. Issues in funding for TQM are expected to arise especially that this management strategy is indeed costly. But organizations who are already ISO-certified must continuously invest in TQM and give adequate support needed for employees to delight customers.

Employees tend to multitask to offset employee shortage. Employees involved in the implementation plan tend to do tasks that are beyond their scope to address the need of lack in manpower to TQM-related plans. This affects engagement of the employees and increases job stress. The implementation of TQM results in more work pressure to employees and it will be a lot harder for employees involved if there is employee shortage. Leaders should examine the capacity of the employees and achieve ways to ensure that employees have a well-balance work schedule to lessen the burden.

Engagement of the people was also highlighted during the focus group discussion. TQM implementation is a tedious process and this could lead to disengagement of employees and if not address properly could result to attrition. According to ISO, competent empowered and engaged people at all levels throughout the organization are essential to enhance its capability to create and deliver value. It is imperative to involve all people at all levels and respect them as individuals. Recognition, empowerment and enhancement of competence facilitates the engagement of people in achieving the organization's quality objectives.

In the focus group discussion conducted to the random employees for both public and private HEI, a department head from private institution pointed that "A very familiar barrier in implementing TQM and ISO is that it is an added work. Employees are not hired to do TQM/ISO related activities as these are only added tasks. Furthermore, one challenge I see is that the designation given related to Quality initiatives is

not given to all employees. In a certain department, there is only one process owner, one document custodian, etc. This creates burden and added work for those assigned. These people were only tapped to be part of quality initiatives. The selection process is subjective and there is really no defined criteria to select process owner, document POC per department."

In addition, another employee from a private institution stressed that "Employees are having a hard time to comply immediately to the quality procedures because I also agree that it is an added work because there are also deliverables you need to do first. Employees tend to multi-task just to ensure that they comply with Quality procedures but needed to prioritize job function on day to day operations."

Mobility of management affects greatly the implementation of TQM. Like any other organization in any industry, the role of the management is as crucial as funding to its success. Management turnover and changes within the organizational structure increases the chance of subjective management leading to unfavorable outcomes (Mosadegrad, 2014).

An employee from a public institution stated that one of the biggest challenges in implementation of TQM is also related to human resource barrier. *"Para sakin mahirap yung pa palit palit ng boss, ng mga head at directors. Doon tingen ko nahirapan ang community. Mahirap kasi yung adherence sa plans for the office kasi mababago pag nagpapalit palit so mababago yung focus."* ("For me, it is very challenging to implement TQM especially when the roles of the bosses and directors within the institution is always changing. I think that our community is having a hard time to adhere to the plans for the Quality office because it will be hard to focus because of change in leadership")

Due to the frequent change, the involvement and commitment of the leaders and employees are lessened and impacting the implementation. Mobility of management was considered a deadly disease for business (Deming, 1986). The job security of managers encourages long-term planning and their commitment to pursuing long-term objectives (Mosadeghrad, 2014). This is perhaps the simplest and yet the most deadly of quality systems management diseases as management mobility means continuous improvement efforts will be broken and disjointed as new leaders come on board. With changes in leadership, there is a change in management philosophy.

Summary of Findings

After a thorough evaluation of the gathered data, the following findings are hereby presented:

1. Based on the overall statistical data collected, two of the least ranked barriers in terms of agreement by the respondents were Structural and Human Resource Barriers. These barriers cover obstacles on funding issues and human errors.

This supports the need for continuous investment on physical and human capital such as investing in quality systems and employees' knowledge and skills to strengthen their competencies. Afterall, high-quality empowered employees and resources are imperative for producing high-quality service.

2. Based on the overall statistical data collected from respondents who have direct involvement to the quality plans and initiatives of their respective ISO-certified Universities, the null hypothesis is therefore accepted. Barriers identified have no significant effect to the full implementation of TQM of the selected ISO-certified schools in Manila.

Overall, the positive response of the respondents on the identified barriers depicts that they are not significantly affected by the barriers and already established a quality-oriented organization. However, based on the interview with the quality heads and focus group discussion, there were concerns raised that affects the performance of employees involved in the implementation of TQM and most of it falls under human resource and structural barriers. Managers should be aware of these hindrances and must address these barriers to have a positive impact in TQM that will eventually translate to high quality of service for their respective institutions.

3. There is no significant difference on the barriers identified in different ISO-certified schools between private and public institutions. This reveals that the ISO-certified participating institutions in Manila, Philippines either public or private have almost the same amount of concerns when it comes to the barriers

identified. However, in an interview with the Quality Head of a public institution, challenges and complexity of Implementing TQM were stressed out when compared to private particularly their limitations due to funding and directions they need to conform.

The study of Ali Mosadeghrad reveals that developing countries reported more human resource and structural barriers than their counterparts in developed countries. The study is conducted in the Philippines, a developing country. This shows that the profiles of the school, regardless if the institution is private or public, have the same concerns when it comes to full implementation of TQM.

Conclusions and Recommendations

Based on the findings of the study, the succeeding conclusion were drawn:

Total Quality Management. The recently signed law, IRR of Republic Act No. 10931 or the Universal Access to Quality Tertiary Education Act, gives added pressure on SUCs in the Philippines to provide quality education. Note that there is no significant difference on the barriers identified in different ISO-certified private and public institutions, but the law is fairly pushing public institutions to be with the same standard with private HEIs in terms of quality initiatives and efforts despite the issues with funding and certain procedures as the main core of the law is to provide quality tertiary education to Filipinos.

Section 17 of RA no. 10931 also paved way to the creation of Joint Congressional Oversight Committee on Universal Access to Tertiary Education. The main responsibility is to oversee, monitor, and evaluate the implementation of the law. Participating ISO-certified institutions have a good working relationship with the accrediting agency of ISO and are extremely satisfied, based from the results, with the performance of certification bodies during the ISO assessment. This confirms the competency of the certification bodies of the participating ISO universities as they were able to set out the requirements expected from them. Furthermore, this validates the ability of the certification bodies in auditing and certification of quality management systems.

After careful assessment of the findings and construction of conclusion, the following are hereby recommended:

1. The researcher strongly recommends including quality-related information in the job orientation of new joiners of the institutions for expectation setting. This will raise awareness and reduce the feeling of "added work" towards quality-related activities of the University by the employees.

2. The researcher strongly recommends continuous investment of schools in TQM to further improve existing TQM model to provide quality education and delighted stakeholders

3. The researcher highly recommends adding more participating ISO-certified Universities in the study to gather more insights and perspective pertaining to TQM across different university cultures.

4. One avenue for further study would be research particular to either public or private ISO-certified universities. This will narrow the study in a way that would focus in identifying the barriers for each institution type to improve quality objectives.

5. Another avenue for further research is a study that will focus on institutions that are not yet ISO-certified. This is to further assess the existing barriers presently challenging institutions who are not yet ISO-certified to get a more comprehensive understanding in the struggles of implementing TQM.

Action Plan

The researcher came up with a plan for improvement as an outcome for this study. A SMART approach (Specific, Measurable, Achievable, Realistic and Time-bound) was used for setting the goal of further improving the quality initiatives of the participating institutions to this study.

List of strategies are derived based from the result and ranking of the barriers presented followed by the list of activities for improvement. The Quality Head and Top Management are free to make changes to the action steps presented by making fine adjustments to make it more suitable for their respective organization. This action plan can be used as guiding principle for future improvements and as basis for further research.

Strategies	Activities	Responsibility	Time-line	Evaluation
1. Revisit and Reevaluate Organization Policy	Revisit and reevaluate job descriptions to in-clude TQM related ac-tivities	Quality Head, Human Resource Department	Prior Start of A. Y. 2019 - 2020	Staff Participa-tion, Em-ployee Handbook
	Include TQM/ISO relat-ed activities in job orientation	Quality Head, Human Resource Department	Prior Start of A. Y. 2019 - 2020	Staff Participa-tion, feedbacks
2. Reas-sessment of Employee Skills and Competen-cies	Evaluation of the cur-rent competencies of University staffs	Quality Head, School Administrator	Prior Start of A. Y. 2019 - 2020	Staff Participa-tion
	Provide necessary trainings and seminars to improve employee competencies	Quality Head and Council	Prior Start of A. Y. 2019 - 2020	Performance Evaluation
3. Develop a Core Team for Quality Imple-mentation and Improvement	Identify Key Resources to be part of the Core Team	Quality Head, School Administrator, De-part-ment Heads	Q1 of A.Y. 2019 - 2020	Staff Participa-tion
	Assess the School's cur-rent culture, needs and strength	Quality Head, School Administrator	Q1 of A.Y. 2019 - 2020	Survey
	Build Staff Consensus	Quality Head, School Adminis-trator	Q1 of A.Y. 2019 - 2020	Feedbacks
	Quarterly Focus Group Dis-cussion among Quality Key Resources	Quality Head and Council	Q1 of A.Y. 2019 - 2020	List of areas identified for improvement
4. Increase awareness on the informa-tion re-lating to quality	Use survey results to in-form areas for improve-ment	Quality Head and Council	Q2 of A.Y. 2019 - 2020	Survey
	Initiate pro-grams/interven-tion to ad-dress areas identi-fied for improvement	Quality Council	Q2 of A.Y. 2019 - 2020	Feedbacks
	Communicate the created program throughout the school system	Quality Council	Q2 of A.Y. 2019 - 2020	
5. Develop a mentoring pro-gram between Quality People and University Staff	Coordinate with De-part-ment Heads to nominate qualified employees for the program	Quality Head and Council	Q3 of A.Y. 2019 - 2020	Program Plan
	Have a Quality Commit-tee/ council and University staff collaborate for quali-ty pur-suits	Quality Head and Council	Q3 of A.Y. 2019 - 2020	Program De-scription
	Set a recognition /graduation day for the mentees at the end of the program	Quality Council	Q3 of A.Y. 2019 - 2020	Program Evalu-ation
	Involved the newly honed staff with the Quality Ini-ti-atives of the University	Quality Council	Q3 of A.Y. 2019 - 2020	

(table continues on the next page)

6. Enhance existing recognition programs	Set a University wide recognition for Quality milestones	Quality Council	Q3 of A.Y. 2019 - 2020	Survey Feedbacks
7. Improve the Quality Culture	Coordinate with other Department to create a "Quality Day" within the Academic Year	Quality Head, School Administrator, Quality Council	Q3 of A.Y. 2019 - 2020	Survey Feedbacks Program Plan and Evaluation

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Status and Prospects of Selected Microfinance Companies in Southern Cebu Rural Areas and Its Perceived Effects to Micro and Small Entrepreneurs

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Abstract

Microfinance companies (MFCs) tried to bridge the gap on credit accessibility to entrepreneurs but unfortunately, there is still a gap on the unmet demand and insufficient supply of funds. This study aimed to determine the status of selected MFCs in Southern Cebu's rural areas when providing services to the rural poor especially to micro and small entrepreneurs (MSEs) to improve their financial condition and make the means of credit accessible to those who need it. This study focused on examining the respondents' profile, level of awareness and satisfaction, problems encountered, and the effects of the offered microfinancing. Mixed method and descriptive analysis were used to investigate the status and contribution of microfinancing to come-up with reasonable prospects for MFCs. All 13 managers were selected and stratified random sampling was used for 389 MSEs. The study revealed that there was a significant difference between the perception of managers and MSEs on the level of awareness and satisfaction. The study found out that microfinancing helps improve the business and financial status of the respondents. Moreover, data revealed that there were still problems that need to be addressed. Regular evaluation of business processes to know the areas for improvement must be done.

Keywords: *microfinancing, microfinance companies, small and medium enterprises, entrepreneurs, Philippines*

The Philippines is one of the developing countries where most people are engaged in borrowing money or "microloans" from both formal (banks, cooperatives, NGO's, and those who are licensed) and informal sources (family members, relatives, friends, loan sharks, and 5-6 lenders) to finance their businesses. Hence, microfinance loans play an important role in the nation's economy because they infuse capital to micro and small entrepreneurs and they support below – the – poverty – line – families who want to start a small-scale business. However, not all people know microfinance loans (especially those entrepreneurs in the rural areas) due to poor information dissemination and lack of public access. This is considered a stumbling block in the market penetration of microfinance companies in the country. Despite the entrepreneur's awareness of "microfinance loans", the majority of them do not borrow from formal sources like banks, lending institutions, and cooperatives. Instead, they resort to informal sources. Data from Bangko Sentral ng Pilipinas (BSP) show that as of 2015, around 47% (nearly half) of Filipino adults had an outstanding loan. In fact, based on the 2015 survey on Financial Inclusion, 74.4% of loans are borrowed from family members, friends, and relatives, 10.2% are borrowed from informal lenders (5-6 and loan sharks), while those who borrow from microfinance institutions only have 22.6% (combination of financing/lending companies (7.9%), cooperatives (7.6%), NGO's (5.1%), and banks (2%)). One reason is that borrowing from formal lenders remains costly and inconvenient. In addition, Dean Karlan of Yale University observed that despite the rhetoric, microfinance traditionally is not reaching the poorest of the poor. Micro-lenders or microfinance companies are not willing to go that far downscale because the loan sizes and savings amounts get to be so little.

Today, the Philippine government is on its way to pursue the program of poverty eradication by encouraging Filipinos to undertake entrepreneurial activities that meet their basic needs. In pursuing these activities, financing or start-up capital is needed to sustain and help the business enterprises to grow. Access to finance is one challenge that hinders start-up, micro and small entrepreneurs (MSEs) in the rural areas. Without financial access, entrepreneurs in the rural areas would have a difficulty in making their business grow.

Background of the Study

Poverty remains a big problem in the province of Cebu. According to World Vision, poverty incidence in Cebu is registered at 33.6% of its population. Despite the presence of manufacturing, shipping industries, business, and tourism sectors in Cebu's economy, the claim of prosperity is negated by NSCB (National Statistical Coordination Board) because it does not relate to the improvement of the said people's living conditions. While a few families and a number of foreign investors funnel billions of pesos into its banks, the reality is: the rich are getting richer and the great size of household poverty is steadily getting worse. This makes Cebu top the whole Philippines in poverty incidence.

Microfinance companies fill the gap within financial service industries by offering small loans or micro-loans to people who did not access conventional loan services, to help poor people fight poverty and improve their lives. The reasons for the study of microfinance companies in the Philippines, particularly in the rural areas of Southern Cebu are:

The Poverty Statistics of PSA 2015 mentioned that Cebu ranked number 1 among the top 10 provinces with the highest number of poor families. It is supposedly a land of opportunity for people to lead better lives, but what is happening is quite the opposite because its 30 – 40% of the population are battling poverty. The economic stagnation in the provinces of Cebu (especially in the rural areas) accompanied with a high birth rate and unemployment, has created a need for targeted financial lending and borrowing services. One of the key challenges of the clients in the rural areas is the unawareness of the microfinance policy and credit system.

Furthermore, based on research, there is only a small number of studies dedicated to microfinance in Cebu, especially its rural areas, and some of them are already outdated.

Lastly, there was a lack of programs on financial literacy. The government sector and microfinance companies should have programs on how to use borrowed funds (continuous financial education on loans) in order to sustain their level of knowledge.

Research Objectives

The main objective of this study is to investigate the status and prospects of selected microfinance companies in Southern Cebu Rural Areas and their perceived effects to micro and small entrepreneurs (MSEs) and to the microfinance companies. However, the specific objectives of the study are to:

1. Determine the profile of selected microfinance companies and borrowers (micro and small entrepreneurs) in the rural areas of Southern Cebu.
2. Determine the level of awareness of the borrowers and the microfinance managers/ supervisors in the Southern Cebu rural areas regarding the microfinance services available to them.
3. Determine the satisfaction level of the borrowers (micro and small entrepreneurs) and the microfinance managers/ supervisors in the Southern Cebu rural areas with regard to the services provided by the microfinance companies.
4. Determine the perceived effects of micro financing to the research respondents in the rural areas of Southern Cebu in terms of:
   4.1 Micro and Small Entrepreneurs
      4.1.1 Business Improvement
      4.1.2 Personal Development

4.2 Microfinance Companies
4.2.1 Business Expansion
4.2.2 Increased Corporate Social Responsibility

5. Determine if there is a significant difference in the perception of the borrowers (micro and small entrepreneurs) and the managers of microfinance companies in Southern Cebu's rural areas as to:
   5.1. Level of awareness on the services; and
   5.2. Level of satisfaction
6. Identify the problems encountered by the research respondents (borrowers who are micro and small entrepreneurs and microfinance managers/ supervisors) to provide a recommendation to selected microfinance companies in Southern Cebu rural areas.

Methodology

Research Design

The study used mixed method of research. Descriptive survey design was used to examine the status and prospects of selected microfinance companies with emphasis on the perceived effects of microfinancing to micro and small entrepreneurs. The descriptive type was suitable in this study because several micro and small entrepreneurs (borrowers) were sampled while interview questions (selected entrepreneurs and managers) were used for the problems encountered on the micro-financing services offered.

Respondents of the Study

The respondents of this study were the 13 managers/supervisors of selected microfinance companies: Negros Women for Tomorrow Foundation (NWTF), Community Economic Ventures, Inc (CEVI), and Katipunan Bank, Inc (KBI)) and the 389 selected micro and small entrepreneurs (engaged in different types of industry and business) who are borrowers of selected microfinance companies in the seven (7) municipalities/cities (as representative of Southern Cebu's rural areas).

Sampling Technique

All thirteen (13) microfinance company managers or supervisors were tapped for this study based on the branches of selected microfinance companies. Stratified random sampling was used to the 389 micro and small entrepreneur who are borrowers of the selected microfinance companies. The researcher randomly selected respondents (both managers/supervisors and borrowers) for the interview.

Research Instrument

The instrument used in the study is a self – made survey questionnaire. The research instrument contains the following details: Part 1, is the profile of the two groups of respondents; Part 2 is the level of awareness and satisfaction of micro and small entrepreneurs (borrowers) and managers/supervisors of the selected microfinance companies; and Part 3 is the perceived effects of micro-financing to the research respondents. Semi-structured interview questions were done for the problems encountered by the research respondents (micro and small entrepreneurs [borrowers] and the managers/supervisors) regarding microfinance companies and its services.

Validation of Instrument

The researcher used a self – made survey questionnaire and interview questions to get concrete and justifiable explanation to the services received by the research respondents. The questionnaire was presented to the adviser and was validated by the subject expert in business and finance with the cooperation of the managers of selected microfinance companies in Southern Cebu for comments and suggestions. It had undergone pilot testing using 30 borrowers of selected microfinance companies and 20 managers/supervisors in the different financial institutions. Those who participated in the pilot testing were not included

in the final distribution of the questionnaire. The questionnaires were already passed for reliability testing (Cronbach Alpha) with the overall rate of 80%.

Results and Discussions

Microfinance Companies Profile

The profile of the microfinance companies consists of the following: number of years in operations or in business, initial capital invested in business, types of loans offered, interest rates on loans, terms of payments, mode of payments, loan requirements, types of borrowers, number of borrowers, number of employees, minimum loanable amount, and maximum loanable amount.

Number of Years in Operations or in Business

Table 1

Frequency and Percentage of the Number of Years in Operations of the Selected Microfinance Companies in Southern Cebu

Years in Operations	Frequency	Percent
Less than 5 years	0	0
5-10 years	3	23.1
11-15 years	0	0
16 years and above	10	76.9
Total	13	100.0

Table 1 illustrates that 10 (76.9%) of the branches of selected microfinance companies have operated for more than 16 years. It was followed by 5-10 years in operations with a total of 3 microfinance companies (23.1%). Companies that operated for more than 10 years in business gave the impression of high credibility, greater financial stability, and viability.

Initial Capital Invested in Business

Table 2

Initial Capital Invested by the Selected Microfinance Companies

Initial Capital Invested	Frequency	Percent
Below Php 1,000,000	0	0
Php 1,000,000 – 2,000,000	0	0
Php 2,000,001 – 3,000,000	11	84.6
Php 3,000,001 – 4,000,000	0	0
Php 4,000,001 – 5,000,000	0	0
Php 5,000,001 – above	2	15.4
Total	13	100.0

It was shown in Table 2 that there were only 15.4 percent (2 out of 13) branches of microfinance companies who answered that their initial capital invested in business is Php5,000,001 and above, while 84.6 percent (11 out 13) invested initial capital amounting to Php2,000,000 to 3,000,000. It only shows that majority of the respondents who were engaged in micro-financing have small investment, but the invested amount were properly managed.

Types of Loans Offered

Table 3

Types of Loans Offered by the Selected Microfinance Companies in Southern Cebu

Loans Offered	Frequency	Percent
Personal	0	0
Business	13	100.0
Educational	8	61.5
Housing	0	0
Car	0	0
Salary	2	15.4
Agricultural, Green Loan, Asset Acquisition, Wash Loan	8	61.5

**Multiple Response*

Table 3 shows that among the eight (8) types of loans offered, business loans got the highest frequency and percentage, with 100% of the microfinance companies agreed. It was followed by educational loan, agricultural loan, green loan, asset acquisition, and wash loan (61.5%). There are also 3 microfinance companies (23.1%) that have offered water sanitation and hygiene loan, 2 microfinance companies (15.4%) that offered salary loans and none offered personal loan, housing loan, and car loan.

Since business loans were applied extensively by micro and small entrepreneurs for additional capital and people who want to start a new business for start-up capital. It is also argued that the loans given by the microfinance companies are mainly for business purposes, although sometimes other financial products may be given such as that for emergence purposes and education (Mwisimba, 2015). In addition, microloans offered by microfinance companies are intended primarily for starting or growing a business but some recipients use their loans for household consumption and investment (Stefan, 2016).

Interest Rates on Loans

Table 4

Interest Rates on Loans offered by the Selected Microfinance Companies

Interest Rates on Loans	Frequency	Percent
1 - 3%	10	76.9
4 - 6%	3	23.1
7 - 9%	0	0
10% and above	0	0
Total	13	100.0

It was revealed in Table 4 that 76.9% of the branches of microfinance companies have 1 to 3 percent interest on their loans and the other microfinance companies or 23.1% charge 4 to 6 percent interest on loans. The interest charged by microfinance companies is relatively low compared to the interest charged by loan sharks or informal sources, and other financial institutions. Low interest rate may motivate more businessmen to borrow for business operations or expansion. This interest rate will apply based on the repayment or loan cycle (*i.e.,* 6 months, 1 year, and etc.) that the entrepreneurs want to avail.

As the level of competition in the industry increases, microfinance companies scrutinize their policies and processes so does pressure on them to bring down their interest rate (Eleke-Aboagye & Otsyokpo, 2016). According to the Microfinance Council of the Philippines, Inc., most of their members (*e.g.,* NGO) offer a variety of loans to low- income households with an average nominal interest rate of 2 to 2.5% and a usual loan cycle of 6 months.

Terms of Payment

The repayment schedule given by companies to pay the loans acquired by borrowers including interest rate.

Table 5
Terms of Payment Offered by the Selected Microfinance Companies in Southern Cebu

Terms of Payment	Frequency	Percent
Daily	0	0
Weekly	10	76.9
Monthly	10	76.9
Quarterly	0	0
Yearly	0	0
Semi-monthly	11	84.6

**Multiple Response*

Table 5 shows that most of the branches of selected microfinance companies offer semi-monthly terms of payment with 84.6%, followed by both weekly and monthly with 10 or 76.9%.

The borrowers were given several options that will allow them to pay at their most appropriate/ convenient time. Extending the payment terms will help borrowers get ahead on their personal or family finances without making major sacrifices since they have an ample time to seek money to pay their obligations.

Mode of Payments

Table 6
Mode of Payments of the Selected Microfinance Companies in Southern Cebu

Mode of Payments	Frequency	Percent
Cash	13	100
Post-dated Check	0	0
Money Transfer	0	0
Others	0	0

Table 6 shows that cash was the only mode of payment in all branches of selected microfinance companies in Southern Cebu. Other forms of payment like post-dated check and money transfer were not used. Cash was the only accepted mode of payments since majority of the borrowers do not have checking account. Loan officers collect cash to borrowers in their selected payment centers.

Loan Requirements

Table 7

Requirements Needed to Acquire Loans in the Selected Microfinance Companies in Southern Cebu

Loan Requirements	Frequency	Percent
Business Plan	11	84.6
Collateral	8	61.5
Financial Statements	11	84.6
Guarantors	11	84.6
Permits and Licenses	13	100
Cash Flow	8	61.5
Proof of Identity, Proof of Residency, Pictures	3	23.1

**Multiple Response*

Table 7 shows the various requirements needed by the borrowers to acquire loans. It shows that 100 percent or 13 branches of microfinance companies required permits and licenses to avail of loans. It was followed by business plan, guarantors, and financial statements with 11 respondents or 84.6%, next was collateral and cash flows which has 61.5% or a total of 8 respondents. Proof of Identity, Proof of Residency and Pictures was in the last, with 3 respondents (23.1%).

These above mentioned requirements were meant to ensure that the loan borrowed will be paid. Guarantors were also required so that in case the principal borrowers is unable to pay they can collect from the guarantors.

Types of Borrowers

Table 8

Types of Borrowers of the Selected Microfinance Companies in Southern Cebu

Types of Borrowers	Frequency	Percent
Individual	13	100.0
Partnership	0	0
Corporation	0	0
Clusterized Groups	3	23.1
Informal Groups	8	61.5

**Multiple Response*

It was shown in Table 8 that 100 percent of the branches of selected microfinance companies offered loans to individual. Followed by informal groups, with 8 microfinance companies or 61.5 percent and clusterized groups with 3 microfinance companies or 23.1 percent.

Most of the borrowers were individuals. They borrow for business purposes as reflected to table 19. There were no established business in the form of partnership and corporation. The loan amounts for individual borrowers are often higher than those of solidarity group borrowers, and often require a guarantor (Uthayakumar, 2019).

Number of Borrowers

Table 9

Number of Borrowers who Availed Loans to the Selected Microfinance Companies

Number of Borrowers	Frequency	Percent
Less than 500	0	0
500 - 1,000	0	0
1,001 - 1,500	0	0
1,501 and above	13	100

Table 9 shows that the branches of selected microfinance companies have more than 1,501 with a total of 13 branches of the microfinance companies. The table reveals that each of the 13 branches of the microfinance companies was serving a lot of entrepreneurs. These entrepreneurs can provide employment and help the government finance its various projects through taxes paid. A microfinance companies that operates many years in business would imply that they are already established, stable in the industry and served more than a thousands of entrepreneurs who are in need of money for expansion or additional capital to their businesses.

Number of Employees

Table 10

Number of Employees of the Selected Microfinance Companies per Branch

Number of Employees	Frequency	Percent
1-10	0	0
11-20	13	100
21-30	0	0
40 and above	0	0

Table 10 shows that 100% of the branches of selected microfinance companies have 11-20 employees. This means that all selected branches microfinance companies were able to help people gain employment. Employees may include the manager, supervisor, cashiers, administrative staff, and an estimated of 7 -15 loan officers (LOs) or enterprise development officers (EDOs) depending in the area covered by the branch.

Minimum Loanable Amount

Table 11

Minimum Loanable Amount

Minimum Amount	Frequency	Percent
Php 5,000 and below	13	100
Php 5,001 - 10,000	0	0
Php 10,001 - 15,000	0	0
Php 15,001 - 20,000	0	0
Php 20,001 and above	0	0

Table 11 shows that Php 5,000 below was the minimum loanable amount that the borrowers can borrow, All of the microfinance company respondents have this minimum loanable amount. Although the minimum amount each member can borrow is below Php 5,000, based on their capacity and assessment of the loan officers, borrowers can loan as much as Php 250,000.

Maximum Loanable Amount

Table 12

Selected Microfinance Companies Maximum Loanable Amount

Maximum Amount	Frequency	Percent
Php 50,000	3	23.1
Php 50,001 - 100,000	0	0
Php 100,001 - 150,000	0	0
Php 150,001 and above	10	76.9
Total	13	100.0

It is illustrated in Table 12 that 10 (76.9%) of the microfinance companies have Php 150,001 and above maximum loanable amount; followed by Php 50,000 with 23.1 percent or 3 out 13 branches of selected microfinance companies.

The maximum loanable amount is Php 250,000 but this is extended only to borrowers who have the capacity, collateral, and character to pay their obligations. Credit investigation is also undertaken before big loans can be obtained. Strict business loan requirements and guarantors is very much needed.

Micro and Small Entrepreneurs in Southern Cebu

The profile of the borrowers includes the following: types of business, types of industry, years of operation, initial capital, amount of loan applied, frequency of loan application in a year, and the purpose of the loan.

Types of Business

Table 13

Types of Business of the Micro and Small Entrepreneurs

Types of Business	Frequency	Percent
Agricultural Products	94	24.2
Barber Shop/ Beauty Parlor	8	2.1
Piggery	41	10.5
Internet Café	7	1.8
Rice Retailing	4	1
Sari-Sari Store	105	27
Street Food	73	18.8
Bakery	1	0.3
Boutique	1	0.3
Buy and Sell	15	3.9
Cellphone Accessories	2	0.5
Chicharon Making	1	0.3
Construction Materials	1	0.3
Fish Vending	14	3.6
Frozen Foods	6	1.5
RTW	9	2.3
Selling of Used Tire	1	0.3
Tailoring	3	0.8

(table continues on the next page)

Tricycle Operator	1	0.3
Water Refilling Station	2	0.5
Total	389	100.0

Table 13 revealed that majority of the borrowers have engaged in sari-sari store type of business with 27% (105 out of 389). It was followed by 94 borrowers (24.2%) sell agricultural products and street foods with 73 borrowers (18.8%). Six of them got 0.3 percent (1 borrower each out of 389) which is the lowest percentage. These types of business are bakery, boutique, chicharon making, construction materials, selling of used tire, and tricycle operator.

Most of the borrowers were engaged in sari-sari store and selling agricultural products business. These type of business can be established with not much capital and not much requirements. Agricultural, fishing, buy and sell, and sari-sari stores are the most common owner-operated businesses in provincial Philippines due to its low initial investment, overhead, and flexible work schedule.

Types of Industry

Table 14

Types of Industry of the Micro and Small Entrepreneurs who are Borrowers of the Selected Microfinance Companies in Southern Cebu

Types of Industry	Frequency	Percent
Agricultural and Fisheries	146	37.5
Manufacturing	0	0
Renting and Business Activities	51	13.1
Wholesale and Retail	190	48.8
Other services	2	0.5
Total	389	100.0

It is revealed in Table 14 that there were 190 borrowers (48.8%) were wholesale and retailers, followed by 146 borrowers (37.5%) in agricultural and fisheries, 51 borrowers (13.1%) in renting and other business activities and other services having the lowest percentage of 0.5 percent or 2 borrowers. Wholesaling and retailing business are very easy to organize, not much capital is required and would need only few people to operate.

Years of Operations

Table 15

Years of Operations of the Micro and Small Entrepreneurs in Southern Cebu Rural Areas

Years of Operation	Frequency	Percent
Below 3 years	67	17.2
4-6 years	108	27.8
7 years and above	214	55
Total	389	100.0

It is illustrated in Table 15 that there were 67 borrowers or 17.2 percent that have been in operation for 3 years and 108 borrowers or 27.8 percent with 4 to 6 years in business. Majority of the borrowers have been in business for 7 years and above.

The results implies that there is already stability in the established business. Small Business Association (SBA) states that only 30% of new businesses fail during the first two years of being open, 50% during the first five years, 66% during the first 10 and only 25% make it to 15 years or more (Dean, 2019).

Initial Capital

Table 16

Initial Capital Invested by Micro and Small Entrepreneurs in Southern Cebu

Initial Capital	Frequency	Percent
Below 10,000	295	75.8
10,001 - 20,000	55	14.1
20,001 - 30,000	13	3.3
30,001 - 40,000	2	0.5
40,001 - 50,000	7	1.8
50,001 - 60,000	7	1.8
60,001 and above	10	2.6
Total	389	100.0

Table 16 shows the initial capital of the micro and small entrepreneurs. As shown in the table, 295 borrowers or 75.8 percent have lower than Php10,000 as their initial capital, followed by 55 borrowers or 14.1 percent with Php10,001 to 20,000, 13 borrowers or 3.3 percent have Php20,001 to 30,000, 10 borrowers or 2.6 percent have 60,001 and above, both Php40,001 to 50,000 and Php50,001 to 60,000 have 7 borrowers or 1.8 percent, and lastly, Php30,001 to 40,000 get the lowest rank having 2 borrowers or 0.5 percent. The kind of business established by micro and small entrepreneurs does not need big capitalization.

Amount of Loan Applied

Table 17

Amount of Loan Applied by Micro and Small Entrepreneurs in Southern Cebu

Loan Applied	Frequency	Percent
Below 10,000	194	49.9
10,001 - 20,000	133	34.2
20,001 - 30,000	33	8.5
30,001 - 40,000	8	2.1
40,001 - 50,000	5	1.3
50,001 - 60,000	7	1.8
60,001 and above	9	2.3
Total	389	100.0

It is shown on Table 17 that majority of borrowers have loans of Php10,000 and below with 194 borrowers or 49.9%, and 5 borrowers or1.3 percent have loan of Php40,001 to 50,000. Based on the responses of the borrowers, majority have a loan below Php10,000 from the branches of selected microfinance companies. The initial loan can be increased depending on the cycle of payment.

Frequency of Loan Application in a Year

Table 18

Micro and Small Entrepreneurs' Frequency of Loan Application in a Year

Frequency of Loan Application	Frequency	Percent
1 - 3 times	385	99
4 - 6 times	4	1
7 times and above	0	0
Total	389	100

Table 18 illustrates that most of the borrowers apply for a loan 1 to 3 times a year with 385 borrowers (99%). There were only 4 borrowers or 1 percent who applied for loan 4 to 6 times. The repayment terms agreed upon by the micro and small entrepreneurs and microfinance companies determine the number of times entrepreneurs may borrow.

Purpose of the Loan

Table 19

Purpose of Loan of the Micro and Small Entrepreneurs in Southern Cebu

Purpose of the Loan	Frequency	Percent
Business	385	99.0
Consumptions	54	13.9
Education	165	42.4
Emergencies	45	11.6
Housing/ Housing Repairs	68	17.5
Agricultural Loans	40	10.3
Additional Capital	5	1.3

**Multiple Response*

Table 19 shows the frequency and percentage of the purposes of the loan. It reveals that majority of the borrowers who availed microfinance loan utilized the amount loaned for business purposes with 385 borrowers or 99 percent. Additional capital got the lowest frequency and percentage with only 5 borrowers or 1.3 percent. The loans were used by entrepreneurs to enable them to engage in income-generating activities and expand or grow their small business.

Level of Awareness on the Services

Table 20

Perceived Level of Awareness of the Managers on the Services Offered by Selected Microfinance Companies

Awareness	Mean	*SD*	VI
There is sufficient fund available for borrowing/ loan	4.00	0.000	Fully Aware
There is an alternative ways given when borrowers failed to pay/ delinquent	3.77	0.439	Fully Aware
Lesser charges, penalty and surcharges imposed when borrowers defaults on his/her payments	3.69	0.480	Fully Aware
There is a thorough credit investigation made before approving such loan	3.92	0.277	Fully Aware
There is a rigid checking of loan requirements before granting the loan	3.92	0.277	Fully Aware

(table continues on the next page)

A detailed explanation made on the different charges involve in getting a loan	3.85	0.376	Fully Aware
Offers financial literacy program to its clients/ borrowers.	3.77	0.439	Fully Aware
Overall	3.846	0.229	Fully Aware

Table 20 reveals that managers were *fully aware* on the services offered by the microfinance companies. The overall mean is 3.8462 and a standard deviation of 0.22933. It was understood that managers of the microfinance companies have a full knowledge on their services offered given that majority of them were fully aware.

Table 21
Perceived Level of Awareness of the Micro and Small Entrepreneurs on the Services Offered by Selected Microfinance Companies

Awareness	Mean	S.D	V.I.
There is sufficient fund available for borrowing/ loan	3.68	0.514	Fully Aware
There is an alternative ways given when borrowers failed to pay/ delinquent	3.38	0.776	Aware
Lesser charges, penalty and surcharges imposed when borrowers defaults on his/her payments	3.36	0.688	Aware
There is a thorough credit investigation made before approving such loan	3.56	0.575	Fully Aware
There is a rigid checking of loan requirements before granting the loan	3.53	0.590	Fully Aware
A detailed explanation made on the different charges involve in getting a loan	3.53	0.577	Fully Aware
Offers financial literacy program to its clients/ borrowers.	3.33	0.743	Aware
Overall	3.481	0.422	Aware

The table reveals that micro and small entrepreneurs were aware of the different services of the microfinance companies. The overall mean is 3.4811 and a standard deviation of 0.41292.

It can be noted that sufficient fund available for borrowing or loan obtained the highest mean of 3.68. However, the lowest mean which is 3.33, falls to the financial literacy program offered to its clients or borrowers. Alternative ways given to borrowers when failed to pay, lesser charges, penalty, surcharges, and offers financial literacy program to its clients have to be cascaded to micro and small entrepreneurs, and given importance by microfinance companies.

This implies that an effort will have to be made by the selected microfinance companies to make borrowers fully aware of all the services offered.

Level of Satisfaction on the Services

Table 24
Perceived Level of Satisfaction of the Managers on the Services Offered by Selected Microfinance Companies

Satisfaction	Mean	S.D	V.I.
There is sufficient fund available for borrowing/ loan	3.92	0.277	Very Satisfied
There is an alternative ways given when borrowers failed to pay/ delinquent	3.62	0.506	Very Satisfied
Lesser charges, penalty and surcharges imposed when borrowers defaults on his/her payments	3.31	0.751	Satisfied

(table continues on the next page)

There is a thorough credit investigation made before approving such loan	3.77	0.439	Very Satisfied
There is a rigid checking of loan requirements before granting the loan	3.69	0.630	Very Satisfied
A detailed explanation made on the different charges involve in getting a loan	3.62	0.768	Very Satisfied
Offers financial literacy program to its clients/ borrowers.	3.69	0.480	Very Satisfied
Overall	3.659	0.380	Very Satisfied

Data revealed that managers were *very satisfied* on the services they offered to the micro and small entrepreneurs. The overall mean is 3.6593 with a standard deviation of 0.38038. This implies that managers do their job to satisfy the needs of the micro and small entrepreneurs.

Archakova (2013) believed that customer satisfaction and service quality were the basic consideration which help to run, to improve business and profit of the company, and especially to develop the loyalty of its customers.

Table 25

Perceived Level of Satisfaction of the Micro and Small Entrepreneurs on the Services Offered by Selected Microfinance Companies

Satisfaction	Mean	S.D	V.I.
There is sufficient fund available for borrowing/ loan	3.62	0.532	Very Satisfied
There is an alternative ways given when borrowers failed to pay/ delinquent	3.35	0.705	Satisfied
Lesser charges, penalty and surcharges imposed when borrowers defaults on his/her payments	3.21	0.724	Satisfied
There is a thorough credit investigation made before approving such loan	3.46	0.585	Satisfied
There is a rigid checking of loan requirements before granting the loan	3.43	0.581	Satisfied
A detailed explanation made on the different charges involve in getting a loan	3.45	0.547	Satisfied
Offers financial literacy program to its clients/ borrowers.	3.23	0.790	Satisfied
Overall	3.392	0.449	Satisfied

It can be drawn in the table that the respondents were satisfied on the services offered having the overall mean of 3.3918 and a standard deviation of 0.44850. Some areas that need improvements are on the alternatives in case of default, on charges, penalties and surcharges, on credit investigation, checking of loan requirements and financial literacy program.

Managers must aim higher than a mere achievement of customer satisfaction. With customers placing greater demands and competitive conditions forcing company to accede to them, the company must take adequate measures to empower their employees to constantly exceed their expectations. Customers' complaints can be approached and attended to by the bankers effectively. If the complaints are being attended to effectively the customers would gain some confidence towards that particular company

Perceived Effects of Micro-Financing

The effects of micro-financing to the micro and small entrepreneurs were presented in following tables:

MSEs Business Improvements

Table 26

Perception on the Effects of Micro-Financing as to the Business Improvement

Business Improvements	Mean	S.D	V.I.
Buys machinery and computer peripherals to be used in business	3.26	0.7543	Agree
Creates, provides, and facilitates employability	1.961	0.8286	Disagree
Builds business sustainability	3.537	0.5669	Strongly Agree
Overall	2.919	0.475	Agree

It can be gleaned in the table that the respondents *agree* on the effects of micro-financing as to the business improvement having the mean of 2.9195 and a standard deviation of 0.47542. It was also revealed that the micro and small entrepreneurs *strongly agree* that microfinance companies have helped in the business sustainability, acquire machineries, and equipment used in the business but they *disagree* on the idea that it creates, provides, and facilitates employability.

MSEs Personal Development

Table 27

Perception on the Effects of Micro-Financing as to the Personal Development

Personal Developments	Mean	*SD*	VI
Enhances quality of life	3.321	0.603	Agree
Enhances employment and business skills	3.386	0.557	Agree
Boosts Self-Confidence	3.622	0.550	Strongly Agree
Builds Human capital and savings	2.789	0.807	Agree
Pays for health and medical	3.075	0.751	Agree
Pays for needs and wants	3.087	0.734	Agree
Pays for house construction and renovation	3.105	0.758	Agree
Pays for unpaid utilities	3.491	0.628	Agree
Pays for the tuition fee of the children	3.324	0.845	Agree
Overall	3.2445	0.4216	Agree

Table 27 shows that the micro and small entrepreneurs *agreed* in the perceived effects of micro-financing as to the personal development with the overall mean of 3.2445 and 0.41268 standard deviation as reflected. This implies that the micro-financing offered by microfinance companies contribute a little accomplishment to micro and small entrepreneurs develop their personal capabilities, skills, needs, and wants.

MFCs Business Expansion

Table 28

Managers' Perceived Effects of Micro-Financing for Business Expansion

Business Expansion	Mean	*SD*	VI
Business developments and diversification of the product/services	3.462	0.518	Agree
Creates employability	3.692	0.480	Strongly Agree
Increase pool of potential customers	3.462	0.518	Agree
Improved sales resulting to increase in profitability	3.538	0.518	Strongly Agree
Benchmarking	3.385	0.506	Agree
Overall	3.508	0.388	Strongly Agree

Data revealed that respondents *strongly agree* that microfinance companies have helped in the business expansion, creates employability, improved sales, and agree on business development and diversification, benchmarking and increase pool of potential customers. The overall mean is 3.508 with a verbal interpretation of strongly agree. It implies that micro-financing helps a lot of microfinance companies accomplish significant improvement to their processes, methodologies, give employment and expand its business all over the regions.

MFCs Increased Social Responsibility

Table 29

Effects of Micro-Financing as to the Increased Corporate Social Responsibility

Increased CSR	**Mean**	***SD***	**VI**
Provides scholarship to the deserving students or to the children of the borrowers	3.385	0.960	Agree
Increased sales and customer loyalty	3.615	0.506	Strongly Agree
Greater ability to attract talent and retain employees	3.385	0.506	Agree
Positive business reputation	3.769	0.438	Strongly Agree
Easier access to capital	3.923	0.277	Strongly Agree
Better brand recognition and/or company image	3.769	0.438	Strongly Agree
Overall	3.641	0.345	Strongly Agree

It is shown in the table that the microfinance companies *strongly agree* on the increased corporate social responsibility with the overall mean of 3.641 and 0.34592 standard deviation. This implies that the micro-financing has improved the corporate social responsibility of the micro and small entrepreneurs.

Significant Difference on the Perception of the

Table 27

Comparison of the Perceived Level of Awareness and Satisfaction of the Managers and the Micro and Small Entrepreneurs

Level of:	Groupings	Mean	*SD*	*t*-value	*p*-value	Sig
Awareness	Managers	3.85	0.22	5.44	$p = 0.000 < 0.01$	VS
	MSEs	3.48	0.42			
Satisfaction	Mana-gers	3.66	0.38	2.12	$p = 0.034 < 0.05$	S
	MSEs	3.39	0.44			

Data revealed that there is a *very significant difference* on the level of awareness between the managers of microfinance companies and micro and small entrepreneurs. Therefore, hypothesis is rejected. This means that the perception of two groups significantly differ.

On the other hand, there was a *significant difference* on the level of satisfaction between the manager's microfinance companies and the micro and small entrepreneurs. Therefore, hypothesis is rejected. This means that the perception of two groups significantly differ.

Problems Encountered by the Managers and Micro and Small Entrepreneurs

The problems encountered by micro and small entrepreneurs were difficulty in repaying loans despite the alternatives or ways given by microfinance companies, releasing and disbursement of loans takes time, financial literacy were not properly exercise or implemented, microfinance companies were left behind by the advance or high – technology.

However, microfinance companies experienced delinquent or default borrowers due to higher approval of loans, multiple loans or borrowings, lack of alternative source of income, poor business and entrepreneurial management skills, stow-away clients, write-on loans, misusage of loans, and poor credit investigation/ analysis. In addition, there were lots of additional works and pressure on quota in the loan officers, trust of the borrowers on their loan officers/EDO, more borrowers handled by the loan officers, and the accessibility of microfinance companies to the borrowers.

Conclusions

Based on the significant findings of the study, the following conclusions are deduced:

Micro and Small Entrepreneurs

1. Loan applied for business purpose help entrepreneurs grow their small businesses and improved standard of living.
2. Financial literacy training program can help improve the entrepreneurs' level of awareness on the offered services.
3. Proper communication on the charges, penalty and surcharges imposed can help enlighten the mind of the micro and small entrepreneurs.
4. Micro-financing improves the business and personally develop the micro and small entrepreneurs.
5. Participation on the training given by the microfinance companies can help micro and small entrepreneurs to learn new ideas, skills, techniques and improve their production while gaining exposure to the product and services offered by microfinance companies.
6. Suitable counseling approach can boost the self-esteem, moral, and confidence of micro and small entrepreneurs.

Microfinance Companies

1. Business enterprises of micro and small entrepreneurs were established through loans from microfinance companies.
2. Skills enhancement and financial literacy training program can help managers and loan officers to be more equipped, competitive, efficient, and effective to their respective jobs.
3. Micro-financing help to facilitate business expansion and increased corporate social responsibility of the microfinance companies.
4. Technological advancement or system application in micro-financing can help improve operation of microfinance companies and increase satisfaction of micro and small entrepreneurs.
5. Appropriate credit investigation can minimize delinquent and default borrowers.

Recommendations

Considering the findings and conclusions drawn from the study, the researcher came up with the following recommendations below:

Micro and Small Entrepreneurs

1. Micro and small entrepreneurs should use the money borrowed for the purpose as specified in the loan application.
2. There should be a proper dissemination (*i.e.,* informational videos, hand-outs or manual), appropriate discussions (*i.e.,* coaching and training), and provision of sound financial literacy program to micro and small entrepreneurs.
3. Face – to – face communication and effective customer feedback should be adopted to improve the services of microfinance companies.
4. Micro and small entrepreneurs should continue to handle their acquired loan wisely, invests it properly and manage finances (*i.e.,* personal, family, and business) effectively.

5. Micro and small entrepreneurs should attend trainings to be more productive, to acquire new knowledge, develop good decision-making skills resulting to financial gain.
6. Counseling should be properly administered by microfinance companies to guide or assist micro and small entrepreneurs' manage stress, problems and emotions effectively.

Microfinance Companies

1. Microfinance companies should continue providing financial assistance to micro and small entrepreneurs.
2. Provide trainings, seminars, and workshops for improvement of services offered.
3. Microfinance companies should not forget their social responsibility to the clients, employees, and government.
4. Microfinance companies should use modern technology like digital microfinance, mobile money transfer, and mobile payment system.
5. Strict credit monitoring/investigation and credit scoring approach should be adopted to avoid loan delinquency.
6. Other researchers should conduct a similar study in other areas to validate the results of this study.

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