

# Knowledge and Implementation of Total Quality Management of Selected Grocery Stores in Cabuyao City, Laguna



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**ABSTRACT:** The study's objective was to determine the level of knowledge and implementation of the Total Quality Management (TQM) of the grocery stores in the City of Cabuyao, in the Province of Laguna, Philippines, and the relationship that exists between the variables. In the study, modified questionnaires were utilized as a part of the descriptive correlational methodology. The study showed that the majority of the grocery stores have been in the business for less than ten years, are classified as a partnership, and have approximately less than 50 employees. The grocery stores had average knowledge of total quality management, and so with its implementation. A significant difference was noted in the level of knowledge and implementation when their responses were grouped according to their profile. The correlation result suggested that the increase in the TQM knowledge will also increase the likelihood of its implementation. The study results impacted the TQM implementation to help the small and medium enterprises (SMEs) improve the quality of their business towards increased business engagement and realizing their full potential, particularly during these trying times amidst the pandemic.

**KEYWORDS:** descriptive correlational study, TQM, SMEs, grocery stores, knowledge and implementation

## INTRODUCTION

Small and medium enterprises (SMEs) play a vital role in generating sufficient cash flows and foreign exchange earnings and providing significant employment opportunities. The critical issue now is starting a business and keeping it going and profitable in the short and long term.

Total Quality Management (TQM) is a primary factor for an organization's continuous improvement and improved performance. TQM tools are critical in assisting with improvement efforts. However, SMEs have limited resources and awareness when implementing TQM tools in their businesses (Ahmad et al., 2018). A successful TQM implementation can create long-term quality and productivity by fostering continuous improvement. Furthermore, TQM tools and techniques are critical for SMEs to maintain their quality and productivity performance (Ahmad et al., 2016).

Adeyamo (2019) observed that Total Quality Management (TQM) had received much attention in the Philippines over the last few decades. However, it has also been criticized for failing to address critical issues related to its success and implementation. However, it is still too early to assume that TQM is obsolete or dead. Total Quality Management is a holistic approach to quality improvement that focuses on achieving customer satisfaction, increased productivity, and increased profitability (Dipasupil, 2018). This can only be accomplished by allowing SMEs to understand better how to implement Total Quality Management to improve the enterprise's quality.

Total Quality Management (TQM) is a quality management method frequently employed in large-scale organizations. Many years ago, it was widely believed that the quality of physical goods was critical. Nowadays, many people are concerned with the quality of the product and services since this is a highly relevant issue. Every firm works hard to achieve excellence in everything it does. TQM is being used as a tool to meet this goal. However, it is not used in small and medium-sized businesses.

One of the benefits of TQM as a tool for performance improvement is that it can be applied to businesses of all sizes (Assarilind & Gremyr, 2016). Quality has become an essential component of business improvement plans due to increased consumer awareness

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and global competition. Although quality management programs have proven successful in some businesses, others have not seen their hoped results. This discrepancy in achievement is primarily because the success of the programs is determined by how well they are adapted to the organizational context (Escrig & De Menezes, 2016).

The primary objective of TQM is to provide customers with high-quality products or services, which will increase productivity and lower costs. On the other hand, SMEs require a significant investment in the workforce, skills, and financial resources to implement TQM tools and techniques. In this situation, SMEs' poor quality and productivity performance resulted from their limited use of TQM tools and techniques (Ahmad et al., 2018).

Hence, this study aimed to determine the relationship between the level of knowledge and implementation of total quality management of selected grocery stores in Cabuyao City to recommend an action plan that will improve the quality of their business. This issue should be addressed because improving the quality of firms enables business owners to develop more effective strategies for achieving business excellence. Failure to formulate an action plan for improving the quality of businesses might hurt the business performance, and the company's full potential will never be attained.

### **METHODS**

This study used a descriptive correlational method of research to achieve the purpose of the study. Descriptive research aims to describe a population, situation, or phenomenon systematically and accurately (McCombes, 2019). It mainly focuses on describing and determining the relationship between knowledge and implementation of TQM in selected grocery stores in Cabuyao City.

This study was conducted in Cabuyao City, a first-class component city in the province of Laguna, Philippines. The City of Cabuyao has 18 barangays with a total area of 43.40 km<sup>2</sup> (16.76 sq. m.): three are Poblacion barangays, six are located along the national highway, six along Laguna de Bay, and the remaining three are located on the western side near the Cabuyao-Cavite boundary (<https://www.cabuyao.gov.ph/>).

This study aimed to determine the level of knowledge in TQM and the level of implementation of TQM in selected grocery stores in Cabuyao City. The study respondents were the thirty-five (35) selected grocery store managers in Cabuyao City who were chosen through purposive sampling. A business manager's job is to oversee and manage the business operations and workers. They implement business strategies, evaluate business performance, and supervise staff, among other things, to ensure firm productivity and efficiency. Therefore, they are the primary source of the data since this study explored the level of knowledge in TQM and the level of implementation of TQM based on what they had experienced.

The researchers were permitted by Professor Sha'ri Yusof, a professor from Japan, to use his survey questionnaire named "Survey on the Implementation of TQM in Malaysian Automotive Suppliers" to guide the researcher's survey questionnaire. The survey questionnaire consists of three (3) parts: the business profile of the respondents, the level of knowledge in TQM of businesses, and the level of implementation of TQM of businesses. The first part of the questionnaire comprises the business profile of the respondents, such as years of operation, the status of ownership, and the number of employees. The second part consists of twenty (20) statements regarding the respondents' level of knowledge in TQM regarding its components and its importance and benefits. Finally, the third part consists of sixty (60) statements regarding the respondents' level of TQM implementation regarding customer focus organization, involvement of people, process approach, system approach to management, continual improvement, and factual approach to decision making. These statements helped the researchers to determine the respondents' level of knowledge of TQM and the respondents' level of implementation of TQM. The researchers modified the constructed survey questionnaire and underwent a validation process.

The data gathered and collected in this study was organized and classified based on the research design and problems formulated. Finally, the data are tallied and tabulated for the presentation, and the researchers used the following statistical tools to interpret the data: the weighted mean to determine the level of knowledge and level of implementation of the TQM; the ANOVA for the significant difference in the responses when grouped to profile; and the Pearson r Moment Correlation Coefficient for the significant relationship between the level of knowledge and level of implementation of the TQM.

### **RESULTS AND DISCUSSIONS**

A survey of 35 grocery stores in Cabuyao City was conducted to assess their TQM knowledge and implementation level. The results are shown in the tables and textual discussions below. This section also discusses the correlation between the factors among the respondents:

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**Table 1. Respondents' Business Profile**

Years of Operation	Percentage	Type of Ownership	Percentage	Number of employees	Percentage
Less than 10 years	72%	Sole Proprietorship	34%	<50	69%
10-20 years	17%	Partnership	37%	50-100	29%
More than 20 years	11%	Corporation	29%	>100	2%
<b>Total</b>	<b>100%</b>		<b>100%</b>		<b>100%</b>

Table 1 shows the business profile of the respondents. It can be observed that the majority of the businesses had been operating their business for less than ten years. This could be due to the recent increase in registered businesses dealing with the pandemic. Despite economic uncertainty and a volatile market, the coronavirus pandemic has increased the number of startups. More businesses are being launched than at any other time in the last decade with the hope of generating enough income to survive the pandemic. It supports the Department of Trade and Industry (DTI) data, which showed that from January to March 2021, the number of business name registrations reached 432,962, as many Filipinos turned to entrepreneurship to help them cope with the pandemic. (<https://www.dti.gov.ph/>). It can also be seen that in terms of ownership, the majority of the respondents are classified as a partnership. This means that large numbers of partnerships are operating in the City of Cabuyao. Many businesses operate as partnerships, possibly because it is difficult for small businesses to survive independently, and they believe that having a partner is a wise choice. It affirms the study of Tsutsumi et al. (2019). They asserted that strategic business partnerships are important for various reasons, including the possibility of gaining a competitive advantage for the business. A win-win partnership could give a business the edge to outperform its competitors. However, a poorly planned partnership can cause more harm than good, making this procedure difficult.

The majority of the businesses have less than 50 employees. Small businesses generate more jobs than medium-sized businesses. The findings above support the data from 2020 shown by the Philippine Statistics Authority (PSA), which stated that a total of 957,620 business enterprises were operating in the country. Of these, 952,969 (99.51%) were MSMEs and 4,651 (0.49%) were large enterprises. Micro enterprises constitute 88.77% (850,127) of total MSME establishments, followed by small enterprises at 10.25% (98,126) and medium enterprises at 0.49% (4,716) (<https://psa.gov.ph/>). It also supports the data from 2020 shown by the Department of Trade and Industry (DTI), which stated that MSMEs generated a total of 5,380,815 jobs, or 62.66% of the country's overall employment. The micro-enterprises produced the biggest share (29.38%), closely followed by small enterprises (25.78%), while medium enterprises were far behind at 7.50%. (<https://www.dti.gov.ph/>).

**Table 2. Level of Knowledge in TQM of the Respondents in Terms of Components of TQM**

Indicator	Weighted Mean	Verbal Interpretation
1. When it comes to any business decision, the primary focus should be on the customer.	3.74	Very High
2. Being able to see things from your customer's point of view allows you to provide an outstanding customer experience.	2.80	High
3. Involvement of people helps to create value for the organization and helps achieve its business objectives.	2.74	Average
4. Total employee commitment is only possible when fear is eliminated from the workplace, people are empowered, and management creates an acceptable atmosphere.	2.71	Average
5. The application of a process approach increases an organization's effectiveness and efficiency in meeting its objectives.	2.11	Low

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6. The process approach enables issues to be resolved and to influence the result more quickly.	2.46	Average
7. Quality management entails a methodical and strategic approach to attaining an organization's vision, purpose, and objectives.	2.54	Average
8. An organization's ability to remain competitive and fulfill stakeholder expectations requires both analytical and creative thinking.	2.66	Average
9. There is a need for performance data in order to assess the effectiveness of an organization.	2.66	Average
10. TQM needs an organization to gather and evaluate data on a regular basis in order to increase the accuracy of decision-making, establish consensus, and create forecasts based on prior performance.	2.54	Average
<b>Average Weighted Mean</b>	<b>2.70</b>	<b>Average</b>

Table 2 presents the respondents' level of knowledge in terms of components of TQM. The overall mean response of small grocery stores for this aspect is 2.70, which is interpreted as Average. It can be observed that small-medium groceries are aware that the primary focus of their business should be on the customers, but knowing that processes can directly impact the ability to serve their customers is something that they are lacking. In any business, not understanding the process approach is a disadvantage because it is an efficient way to plan the development and improvement of service quality. It affirms the study of Doblas et al. (2019) that knowledge transfer and learning are crucial to process improvement. To achieve process improvement, procedures should be in place to ensure top management's quality management policies are transferred to the employees who will directly impact customers.

**Table 3. Level of Knowledge in TQM of the Respondents in Terms of Importance and Benefits of TQM**

Indicator	Weighted Mean	Verbal Interpretation
1. Quality plays an essential role in every business.	3.20	High
2. Quality is an attribute that differentiates a product or service from its competitors.	3.00	High
3. TQM ensures superior quality products and services.	2.54	Average
4. TQM is a continuous effort by an organization's management as well as its employees.	2.37	Average
5. TQM ensures long-term customer satisfaction and loyalty.	2.66	Average
6. TQM is a management theory and practice that ensures that all available resources are used efficiently and effectively.	2.51	Average
7. TQM benefits the business in terms of decision making.	2.43	Average
8. TQM improves the business process that helps in the ability to serve customers.	2.60	Average

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9. TQM efforts have been beneficial in strengthening the competitive position in the industry.	2.74	Average
10. TQM leads to higher productivity.	2.54	Average
<b>Average Weighted Mean</b>	<b>2.66</b>	<b>Average</b>

Table 3 shows the respondents' knowledge of TQM in terms of its importance and benefits of TQM. The overall mean response of small grocery stores for this aspect is 2.66, which is interpreted as Average. This means that small-medium grocery stores know that quality is a crucial aspect of the business. However, they are not fully aware of TQM, including its importance and benefits, vital to achieving quality. Considering that small-medium-sized groceries are not fully aware of TQM in terms of its importance and benefits, it can be observed that TQM implementation may be hindered by the lack of information about TQM, including its importance and benefits. It supports the study of Imran et al. (2018). They stated that knowing TQM is essential to performing tasks and achieving the organization's business goals. Because managers and entrepreneurs are unaware of the benefits of TQM, they are less likely to invest in it.

**Table 4. Summary Table for the Level of Knowledge in TQM**

Level of Knowledge in TQM	Weighted Mean	Interpretation
Components of TQM	2.70	Average
Importance and Benefits of TQM	2.66	Average
<b>Average Weighted Mean</b>	<b>2.68</b>	<b>Average</b>

Table 4 shows the composite summary of the respondent's level of knowledge in TQM in terms of components and its importance and benefits. The overall mean response of Components of TQM is 2.70, and the overall mean response of importance and benefits of TQM is 2.66. Both are interpreted as Average.

The average mean response for the level of knowledge in TQM is 2.68, which is interpreted as Average. Overall, the results state that the level of knowledge in TQM of selected grocery stores is still lacking. This means that there are areas in TQM they still need to understand to fully implement TQM correctly and receive its benefits. It supports the study of Niazi et al. (2019). They stated that inadequate knowledge of TQM practices leads to poor planning, management confusion, insufficient management support, and a lack of full implementation.

On the other hand, knowledge is one of the most valuable resources in our modern world and is viewed as one of the critical success factors in any organization. The problem today is not how to find the information but how to manage it; the most difficult challenge for organizations is determining how to process knowledge and turn it into profit. Therefore, being knowledgeable about TQM tends to improve the performance of many organizations. It affirms the study of Long et al. (2016), who stated that in today's global trends, knowledge has already been recognized as a competitive advantage and has become a critical component of businesses. Effective knowledge management aids the successful implementation of quality improvement. Knowledge ensures continuous improvement in total quality management.

**Table 5. Level of TQM Implementation of the Respondents in terms of Customer Focus Organization**

Indicator	Weighted Mean	Verbal Interpretation
1. The store provides the item that the customer needs.	2.94	High
2. The store offered a broad variety of brands.	2.83	High
3. The products are organized.	3.09	High
4. The stocks are monitored on a First In, First Out (FIFO) basis to prevent spoilage and expiration of products.	2.83	High

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5. There are price labels in each category of the products that are being updated regularly.	2.91	High
6. The price of the products is visible.	2.80	High
7. There are working price checker machine for price inquiry of the products.	2.37	Average
8. The price written on the label is consistent with the cashier's payment.	2.80	High
9. Cashiers in the store always act quickly when there is a long queue.	2.77	Average
10. There is a specific lane for PWDs, senior citizens, and pregnant women in the cashier.	2.86	High
11. The grocery store offers contactless payments.	2.49	Average
12. The customer service personnel are well-trained to respond customer inquiry.	2.86	High
13. The store responds immediately to customer complaints.	2.77	Average
14. All the complaints of customers are being documented.	2.49	Average
15. The store has reasonable return and exchange policy.	2.89	High
16. The store provides high cleanliness and tidiness.	2.94	High
17. Staffs regularly sanitize the store.	2.91	High
18. Safety protocols are being implemented.	2.97	High
19. The business regularly surveys the customers to determine their satisfaction level.	2.26	Average
<b>Average Weighted Mean</b>	<b>2.78</b>	<b>Average</b>

Based on Table 5, the overall mean response for the level of implementation of TQM in terms of customer focus organization is 2.78, which is interpreted as Average. Even though the grocery stores are consistently organizing their products, some areas are considered lacking. Most of them failed to carry out regular surveys to the customers to assess how satisfied they were with different aspects of the business. The fact that most small-medium groceries failed to conduct regular surveys of their customers implies that there is still a need for improvement. An organization must consider service quality as a source of added customer value and listen to consumers' voices to meet their needs and increase demand for their products. To fully implement TQM, businesses must focus on their customers (customer focus), as it is one of the most common TQM practices that assist businesses in achieving service quality.

According to Goetsch and Davis (2016), the customer is the driver in a total quality setting. The above findings support the study of Pambreni et al. (2019), who claimed that SMEs in the service sector need to improve the implementation of total quality management (TQM) by focusing on customer focus. It also affirms the study of Emamian and Sheikholeslam (2016), who stated that customer focus is one of the foundations of good customer-related performance and one of the keys to fully achieving TQM implementation.

**Table 6. Level of Implementation of TQM of the Respondents in terms of Involvement of People**

<b>Indicator</b>	<b>Weighted Mean</b>	<b>Verbal Interpretation</b>
1. The store valued all the employees.	2.83	High
2. The store treats the employees fairly.	3.00	High
3. The store has regular meetings or orientation to the employees to understand their part on the organization.	2.34	Average
4. The organization encourages their employees to do their best.	2.77	Average
5. The store provides feedback for every employee so they can immediately improve their performance.	2.69	Average
6. The organization rewarded employees for their dedication and commitment towards work.	2.66	Average
7. The organization offers benefits for the employees, excluding their salary.	2.83	High
8. The organization has a fair policy for promotion for all the employees.	2.63	Average
9. The store let their employees express their opinions and valued it.	2.60	Average
10. The company involves the employees in the decision making that affects their work.	2.60	Average
<b>Average Weighted Mean</b>	<b>2.70</b>	<b>Average</b>

Table 6 presents the respondents' level of implementation of TQM in terms of the involvement of people. The mean response for this aspect is 2.70, which is interpreted as Average. This implies that small-medium-sized groceries claim that they value their employees, but some do not have regular meetings, which contradicts their claims. Having regular meetings allows employees to be involved in the decision-making and voice their opinions for the improvement of the organization. It can be observed that small-medium grocery stores are not fully implementing the TQM component involvement of people.

The above findings follow the statement of Bakotić and Rogošić (2017) that the implementation of involvement of people has a vital role in implementing other TQM principles such as process approach, system approach to management, and others. It also supports the study of Boikanyo and Heyns (2019), who concluded that employee involvement has a positive relationship with the components of TQM, which was utilized as a measure of quality and is a non-financial measure of performance. To establish a sustainable competitive edge, managers must enable an organization to attract, develop, and retain highly engaged workers.

**Table 7. Level of Implementation of TQM of the Respondents in terms of Process Approach**

<b>Indicator</b>	<b>Weighted Mean</b>	<b>Verbal Interpretation</b>
1. The store utilized a process flowchart to clearly define roles and responsibilities so that everyone understands who is accountable for what and when.	2.43	Average
2. The store sort products based on its similarity.	2.86	High

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3. The store uses signage to highlight products or features, guide customers to specific items, or share information with them.	2.91	High
4. The store offers grouping or bundling products with the goal of driving customers to purchase multiple items.	2.74	Average
5. The store connects with customers using seasonal displays.	2.54	Average
6. The store refines grocery replenishment for improved availability, waste, and efficiency.	2.57	Average
7. Grocery store employees count the products on the shelves and in the warehouse and compare the number to the quantity recorded in the store's records.	2.66	Average
8. The store provides a safety program that covers hazard identification and elimination, incident reporting, and safety meetings.	2.66	Average
9. The store provides customer service training.	2.57	Average
10. The store follows cash handling procedures that include clear store opening, closing and bank deposit instructions to prevent loss.	2.71	Average
<b>Average Weighted Mean</b>	<b>2.67</b>	<b>Average</b>

As reflected in Table 7, the overall mean response for the level of implementation of TQM in terms of the process approach is 2.67 and which is interpreted as Average. This means that most of them utilize a process that directly impacts their ability to serve their customers by using signage. On the other hand, most failed to utilize a process flowchart. Things can get complicated when it comes to keeping track of all the information within an organization. To help visualize and organize business processes, the business can utilize a process flowchart which can be used to identify critical steps while also providing a larger picture of the process. It can be observed that small-medium groceries are not fully implementing the component process approach, and there is a need for improvement.

The findings affirm the study of Guo et al. (2018), who concluded that the quality of the final product or service through the process approach is determined by quality management and vice versa. It also supports the statement of Nallusamy (2016) that if the resources and activities are managed as a process, the desired result will be attained.

**Table 8. Level of Implementation of TQM of the Respondents in terms of System Approach to Management**

Indicator	Weighted Mean	Verbal Interpretation
1. The store is constantly able to meet the demands and expectations of customers.	2.89	High
2. Attracting customers with promotions.	2.83	High
3. The store used software or spreadsheets to organize information and identify trends.	2.66	Average
4. The store conducts inspections for the products regularly.	2.66	Average
5. Store management keeps track of stock to ensure that all merchandise is accounted for, whether damaged, sold at a discount or stolen.	2.74	Average



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6. Customer support is available 24/7 via the web, phone, and email.	2.26	Average
7. The store provides cross-training for their employees.	2.54	Average
8. The organization considers uniforms or matching outfits so customers can easily identify employees.	2.77	Average
<b>Average Weighted Mean</b>	<b>2.67</b>	<b>Average</b>

Table 8 shows the respondents' Level of Implementation of TQM in terms of System Approach to Management. The overall mean response for this aspect is 2.67 and is interpreted as Average. As a result, small-medium grocery stores are not fully implementing the TQM component system approach to management. They might need an improvement as they have a minor setback like failure to provide customer support 24/7. Having your business available to your customers 24/7 shows that you are attentive to their needs and are always willing to assist them, which leads to increased customer satisfaction.

It strongly supports the statement of Castro (2018) that TQM (Total Quality Management) is a management strategy that aims for excellence by coordinating the entire system. To meet the needs of all clients, a business should optimize all processes by utilizing resources and quality methods. It also supports the statement of Terzić (2017) that the system approach is based on the engagement of all employees to meet the needs of clients and, as a result, accomplish the organization's long-term success.

**Table 9. Level of Implementation of TQM of the Respondents in terms of Continual Improvement**

Indicator	Weighted Mean	Verbal Interpretation
1. The grocery store has modern technology and equipment.	2.49	Average
2. The grocery store has security cameras in stockrooms, break rooms or storage area.	2.71	Average
3. The grocery store has security cameras for customers.	2.86	High
4. The grocery store installed inventory controls.	2.54	Average
5. The grocery store conducts scheduled audits.	2.63	Average
6. The company has checks and balances to keep employees accountable and reduce the chance of fraud.	2.69	Average
7. The company always demonstrates commitment to quality.	2.66	Average
8. The employees have self-evaluation to enhance the performance management process.	2.14	Low
<b>Average Weighted Mean</b>	<b>2.59</b>	<b>Average</b>

It is shown in Table 9 the respondents' level of implementation of TQM in terms of continual improvement. The overall mean response for this aspect is 2.59, interpreted as Average. The fact that most small-medium groceries have security cameras to monitor their customers, but most fail to conduct self-evaluation for their employees indicates a need for improvement. Having self-evaluation for their employees lets them know their workers' strengths and weaknesses and what areas to improve on. To achieve continual improvement, businesses must constantly focus on their employees' performance as they play an essential role in the company's success.

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Similarly, Anil and Satish (2016) assert that in TQM practices, the best way to improve organizational performance is to continuously improve performance activities, as continuous improvement helps convert inputs into valuable outputs. It also affirms the study of Terzić (2017), who stated that the use of TQM for the system's continual improvement and upgrade leads to the organization's excellence.

**Table 10. Level of Implementation of TQM of the Respondents in terms of Factual Approach to Decision Making**

Indicator	Weighted Mean	Verbal Interpretation
1. The manager makes decisions and requires others to make the decisions based on the data effectively.	2.80	High
2. The store has a backup for all the important documents.	2.63	Average
3. The manager listens to the voice of the employees for decision making.	2.71	Average
4. The management is responsible for the measurement and monitoring of stores' operations.	2.80	High
<b>Average Weighted Mean</b>	<b>2.74</b>	<b>Average</b>

Table 10 manifests the respondents' level of implementation of TQM in terms of factual approach to decision making with an overall mean response of 2.74, which is interpreted as Average. It can be observed that most of the respondents are responsible and making decisions based on data which is very vital when it comes to a factual approach to decision making as it enables them to make more informed decisions. However, it can also be observed that most of them do not practice backing up their documents. Database backups are critical for any business because they prevent data loss, which can ultimately disrupt business operations. As a result, small-medium grocery stores are not fully implementing the TQM component factual approach to decision making and may or may not need improvement.

The findings above indicate strong support for the study by Sinha et al. (2016), who concluded that the managers must recognize that effective quality management decisions must be founded on examining sufficient facts and information, as defined by the 'Factual Approach to Decision-Making'. This means that managers must ensure data accuracy and reliability while making quality decisions and always make decisions based on logical analysis combined with experience and intuition.

**Table 11. Summary Table for the Level of Implementation of TQM**

Level of Implementation of TQM	Weighted Mean	Interpretation
Customer Focus Organization	2.78	Average
Involvement of People	2.70	Average
Process Approach	2.67	Average
System Approach to Management	2.67	Average
Continual Improvement	2.59	Average
Factual Approach to Decision Making	2.74	Average
<b>Average Weighted Mean</b>	<b>2.69</b>	<b>Average</b>

As a whole, the respondents' level of implementation of TQM in terms of Customer Focus Organization, Involvement of People, Process Approach, System Approach to Management, Continual Improvement, and Factual Approach to Decision Making is Average, as shown in the average weighted mean of 2.69. Overall, the results state that the level of implementation of TQM in those grocery stores is not that high. It can be observed that some areas have received insufficient attention, affecting the quality of service provided by the grocery store to its customers and these areas need to be improved.

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It affirms the study of Ahmad et al. (2018) that when used in conjunction with an integrated business management framework, TQM tools add to an organization's overall quality by helping the firm or organizations understand and acquire these tools. However, several small and medium-sized enterprises (SMEs) fail to properly use excellent TQM techniques, resulting in a moderate and low level of organizational performance. As a result, SMEs must give careful consideration to TQM tool management.

Moreover, it is more important to stand out than to blend in. TQM, a tool to achieve competitiveness and improve service quality, is an excellent way to attract more customers, increase customer satisfaction, and gain a competitive advantage.

It supports the study of Magd and Karyamsetty (2021), who concluded that the application of TQM in small and medium-sized businesses is an additional tool for assisting businesses in improving and speeding up their general practices that contribute to sustainability. It also affirms the study of Bharaddwaj and Guledgudda (2020), who stated that it is impossible to achieve perfection because perfection is a never-ending process. As a result, small businesses should exceed their customers' expectations by incorporating TQM into their goods and services. These results could only be obtained by employing the tried-and-true TQM principle.

Additionally, it strongly supports the study of Aziz (2019), who stated that by using Total Quality Management (TQM), small and medium-sized businesses (SMEs) can grow more quickly, improve, provide superior services and products, and gain a competitive advantage. TQM assists organizations in meeting consumer needs by providing superior products and services to improve the world-class service that their customers will receive. Making a business more efficient and productive can improve its quality and service.

**Table 12. Test of Significant Difference in the Level of Knowledge in TQM of Grocery Stores in Cabuyao City When Grouped According to the Business Profile**

	F-test Computed Value	Degree of Freedom		F-Critical Value $\alpha = 0.05$	Interpretation	Decision
		Between the Group	Within the Group			
Years of Operation	3.41	2	57	3.16	With Significant Difference	Reject Ho
Type of Ownership	6.60	2	57	3.16	With Significant Difference	Reject Ho
Number of Employees	7.06	2	56	3.16	With Significant Difference	Reject Ho

**Decision rule:** If the computed value is less than the critical value at df and significance level, accept the null hypothesis. Otherwise, reject the null hypothesis.

Table 12 shows the result in the test of difference in the level of knowledge in TQM of grocery stores in Cabuyao City when grouped according to their business profile. It was found that there is a significant difference in the level of knowledge in TQM of grocery stores when grouped according to years of operation, type of ownership, and the number of employees. This means that the level of knowledge in TQM of grocery stores varies depending on how long the business has been in operation, the type of ownership, and the approximate number of employees.

The findings above support the study of Wang and Yang (2016), who concluded that small businesses do not always share the same characteristics and ideals as large corporations. Before implementing Knowledge Management (KM) in their environment, specific characteristics of SMEs must be understood.

It also affirms the study of Calvo-Mora et al. (2016), who is one of the few to provide empirical evidence on the aspects that are crucial to the success of KM and TQM projects in businesses of all sizes. Although KM is beneficial in large and small businesses, the results reveal distinctions exist, indicating the importance of orienting corporate management based on size.

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**Table 13. Test of Significant Difference in the Level of TQM Implementation of Grocery Stores in Cabuyao City When Grouped According to Their Business Profile**

	F-test Computed Value	Degree of Freedom		F-Critical Value $\alpha = 0.05$	Interpretation	Decision
		Between the Group	Within the Group			
Years of Operation	45.37	2	174	3.05	With Significant Difference	Reject Ho
Type of Ownership	66.51	2	174	3.05	With Significant Difference	Reject Ho
Number of Employees	26.16	2	174	3.05	With Significant Difference	Reject Ho

**Decision rule:** If the computed value is less than the critical value at *df* and significance level, accept the null hypothesis. Otherwise, reject the null hypothesis.

It is shown in Table 13 that there was a significant difference in the level of TQM implementation of grocery stores when grouped according to years of operation, type of ownership, and the number of employees. It demonstrates that the degree of implementation of comprehensive quality management in grocery stores differs depending on the number of years the store has been in business, the type of ownership, and the number of workers. As a result, their approaches to managing their businesses vary.

The findings above follow the study of Nguyen et al. (2018), who concluded that while there are considerable disparities in the levels of Quality Management practice implementation among groups of varying company sizes, only a small difference can be seen among groups classified according to Quality Management experience, time and industry. There are also significant differences in Quality Management practices on Sustainability Performance across groups with varying QM experience times, industry types, and firm sizes.

**Table 14. Test of Relationship Between the Level of Knowledge and Implementation of TQM of Grocery Stores in Cabuyao City**

Variables	Pearson r Value	Critical Value	Interpretation	Decision
Level of Knowledge Level of Implementation	0.833	0.325	Very Strong Positive Correlation	Reject Ho

**Decision Rule:** If the computed *p*-value is less than the critical value at 0.05 level of significance, accept the null hypothesis. Otherwise, reject the null hypothesis.

Table 14 shows the relationship between the level of knowledge and implementation of TQM in grocery stores in Cabuyao City. The calculated *r*-value at 0.833 indicates a very strong positive correlation. Therefore, there is a significant relationship between the level of knowledge and implementation of TQM in grocery stores in Cabuyao City.

It can be observed that there is a significant relationship between the level of knowledge and the implementation of TQM. It implies that knowledge is the crucial parameter in implementing TQM. Effective use of knowledge in quality management increases the success of quality improvement efforts. If knowledge is effectively integrated into the process, the effectiveness of the quality management to achieve quality improvement will be increased. Hence, knowledge and TQM complement each other.

It indicates strong support for the study of Rajeshwaran and Aktharsha (2017), who asserted that Knowledge Management had an impact on Total Quality Management. It denotes that knowledge management techniques in the company

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impact all aspects of total quality management. It also supports the study of Mokhtar (2017), who stated that there is a positive role between TQM practices and enhancing knowledge management processes. It implies that to improve knowledge management processes effectively, TQM practices must be viewed as a single set of practices that can complement one another, beginning with top management commitment and progressing to detailed processes for reporting necessary data among divisions.

Finally, the findings also affirm the study of Honarpour et al. (2017), who concluded that TQM and Knowledge Management have a positive relationship. Furthermore, using TQM and Knowledge Management as predictors reveals that the joint variances of TQM and Knowledge Management can account for a significant amount of variance (approximately half) of the criterion. As a result, the reciprocal causation between TQM and KM has synergistic effects and can play a critical role in implementing TQM practices.

### CONCLUSION

Most grocery stores in City of Cabuyao have been in operation for less than ten years, are registered as corporations, and have fewer than 50 employees. The businesses' degree of TQM understanding was "Average," emphasizing consumers and the quality of products and services offered. However, they must focus more on TQM as a strategy and a tool. The businesses had an average level of TQM implementation, emphasizing continuous improvement to sustain the TQM benefits. The amount of understanding and level of application of TQM differed significantly based on the company profile of the respondents, which included the length of operation, type of ownership, and the number of employees, all of which influenced their perception of the TQM components. Moreover, the greater a company's familiarity with TQM, the greater its level of implementation.

### FUTURE DIRECTIONS

There are limits to the current research, notably regarding the types of people being investigated. Additionally, focusing on SMEs in the future research will assist enhance the local economy by increasing the quantity and quality of general community services while also creating jobs for the town's residents. In order to better comprehend the interplay of the variables, it is also possible to seek the perspectives of the rank-and-file personnel. Understanding TQM in its entirety as both a tool and a process for improving the products and services offered by small businesses will dispel the myth that it is only suitable for large corporations due to its extensive and expensive process requirements.

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