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A Peer-Reviewed Journal
Published Biannually by
Adventist University of the Philippines

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ESTABLISHING A GROUNDWATER CONTROL COMPANY IN THE PHILIPPINES: A FEASIBILITY STUDY

Allan Paul C. Calpito

Adventist University of the Philippines

Abstract

With the Philippines trying to catch up with its neighboring countries in terms of infrastructure developments through the Public-Private Partnership (PPP) and Build! Build! Build! (BBB) programs, there were numerous projects in the queue that were the first of their kind in the country. These involved excavations extending tens of meters below the groundwater table, which required a proper groundwater control solution. International constructors delivering some of these projects had to bring in sub-contractors from overseas to provide dewatering solutions. In this feasibility study, the researcher examined the demand for groundwater control in the Philippine construction industry and explored the viability of establishing a dewatering company to cater to this demand. Three hundred eighty-two (n=382) Philippine Contractors Accreditation Board (PCAB)-registered contractors in Luzon were selected through purposive sampling and were reached out through emails, Google forms, and phone interviews. Secondary information from online sources, particularly data published by government offices, were also used to evaluate demand and supply. Local contracting companies who offered related services were interviewed to understand the current market situation. The study found that although there was only a small ratio of construction projects that required construction dewatering, accounting for only 14% of the reported number of projects of the surveyed companies, there was sufficient demand and value for a medium-sized enterprise construction dewatering company to be viable and profitable. The study estimated a market share of at least 7% was feasible, with an estimated annual turnover of at least Php21.1 million.

Keywords: *groundwater control, dewatering, construction projects, infrastructures*

Robinson et al. (2021) estimated that the global construction production was US\$10.7 trillion in 2020, and between 2020 and 2030, they projected it to expand by 42 percent, or US\$4.5 trillion, to US\$15.2 trillion. The construction industry is expected to be a major driver of global economic development and recovery following COVID-19. China, India, the US, and Indonesia are set to be the biggest contributors to the global construction output as they account for 58.3% of the worldwide total. The total spending on construction accounted for 13% of the global GDP in 2020 and it is expected that this will reach over 13.5% in 2030.

The insufficiency of infrastructure has long been cited as the “Achilles’ heel” of Philippine economic development in the past decades, which earned the country its infamous nickname as the “Sick Man of Asia” during the late President Marcos’ time (Beeson, 2016; Corong et al., 2013). In order to address this, then-President Marcos focused on rapidly building infrastructures, and with this initiative, the term “Golden Age of Infrastructure” was coined. However, the heavy external borrowing and mismanagement of funds brought the Philippine government to its knees to the brink of bankruptcy. From one administration to another, it took several decades for the government to recover and reach its current state.

Only during the second half of the late President Benigno Aquino’s term that a significant increase in the budget was allocated to infrastructures, and with the current administration of President Duterte, infrastructure construction in the Philippines continued its upward trend thanks to the Public-Private Partnership (PPP) and Build! Build! Build! (BBB) programs.

The BBB program seeks to accelerate public infrastructure expenditure from an average of 2.9 percent of the gross domestic product during the late President Aquino’s administration to about 7.3 percent at the end of the current President Duterte’s administration. This will cost around PHP8 trillion to PHP9 trillion from 2016 to 2022 to address the huge infrastructure backlog in the country. As forecasted, the government is set to spend ~5% to 7% of the GDP on infrastructure projects for 2022, which amounts to up to PHP1.5 trillion (Subic-Clark Alliance for Development, n.d.).

With the re-ushering of the so-called “Golden Age of Infrastructure,” many large infrastructure projects have started such as the railway and subway projects in Metro Manila and its surrounding provinces, and many still are in the pipeline set to be constructed in the next foreseeable years. Several of these projects are the first of their kind in the country, and many of them involve excavations that extend tens of meters below the groundwater table which would require a proper groundwater control solution.

Groundwater control encompasses the range of temporary work techniques used to allow construction projects which extend below the groundwater table to be carried out in dry and stable conditions (Preene et al., 2016).

To deliver this ambitious and grand vision of the BBB program, the Philippine construction industry must have the necessary technologies for different scopes and trades, which include groundwater control and construction dewatering. Many construction markets such as in the Middle East countries have adopted groundwater control technologies from the Western markets, i.e., Europe and/or America, however, this may not be the case in the Philippines yet.

Objective of the Study

This research study aimed to investigate the potential demand for groundwater control in the Philippine construction market and explore the feasibility and viability of a specialist contracting company to cater to this demand.

Significance of the Study

This study examined and presented the various aspects of establishing and managing a groundwater control company and was significant to the following parties:

Entrepreneurs who may be looking for potential investment opportunities in the construction sector may find this research helpful.

Construction project managers or engineers working in similar fields in the Philippines, such as civil, geotechnical, mechanical, or even electrical engineers, may see the opportunity for a viable business during the construction boom. This research gives a practical overview of a groundwater control company and its operations, and it also outlines the general requirements for establishing such a company.

General readers, such as students or researchers, who are looking for related or relevant information for their study may find this reference convenient.

Scope and Limitations

This research focused on understanding the demand for groundwater control or construction dewatering by surveying Luzon-based contracting companies registered in PCAB's approved list with license categories B to AAAA during the period January to March 2022. The participating sample population was selected from the filtered list that further excluded specialist trades except for Excavation or Foundation works, or those who are not approved to work on government contracts.

Related Literature

The state of the infrastructure and the public investment in it has been well documented, with the historical accounts including studies done by Montes (1986), Dohner and Intal (1989), Rodlauer et al. (2000), Bocchi (2008), and Warner (2014) as cited by Komatsuzaki (2019). ADB (2017) estimates the required investment needs in Southeast Asian countries to be greater than 5% of their GDP to meet the needs of their fast-growing economies.

Construction Dewatering and Groundwater Control

Groundwater control for construction, commonly called construction dewatering, is the temporary lowering of groundwater levels by pumping from an aquifer using wells or sumps to provide stable conditions for excavations below the natural groundwater level (Preene et al., 2016).

Several pumping techniques are commonly used in construction dewatering, depending on the geology, ground properties, and depth of excavation. The most common types are sump pumping, well pointing, ejectors or eductors, and abstraction wells. Construction dewatering concepts and technologies are discussed in length and detail by Cashman & Preene (2020), Preene et al. (2016), and Powers et al. (2007), among other prominent authors.

Dewatering is more commonly applied in mining works in the Philippines. Various software applications are available and are used to model hydrogeologic conditions and design a suitable and practical groundwater control strategy, such as the study by Kluza and Evans (2018).

Industry Profile

The total Gross Domestic Product (GDP) of the Philippines has seen a steady rise in the past decades, coming from a slump and contraction during the end of the Marcos regime in 1985 (*Economy of the Philippines*, 2021). Unfortunately, the COVID-19 pandemic throttled the momentum in 2020 as the country's economy contracted again (DTI, 2021). Fortunately, Mapa (2022) reported that the country posted a growth of 7.7% of the GDP in the fourth quarter of 2021, with the construction industry contributing 18.5% to this. The 2021 GDP was estimated to be PHP19.387 trillion, a 5.6% year-on-year growth, and the construction industry contributed 9.8%. As of June 2021, the construction industry employed 9.6% of the total workforce of 45.075 million people. The construction industry continues to provide job possibilities, with 4.337 million individuals employed on average (DTI, 2021).

Infrastructure was the hallmark of President Duterte's term in office. Since he started, the actual amount spent from the years 2016 to 2020 was estimated to be PHP 4 trillion, which averaged to 5% of the total GDP (CPBRDHR, 2021). This was more than double the proportion of the allocated budget of the previous administration.

Figure 1 shows the Philippine government's infrastructure budget since 2010 and its projection for 2022. This implies that there is a sizable budget for the sector which would trickle down to all associated scopes including temporary works such as the construction dewatering sector.

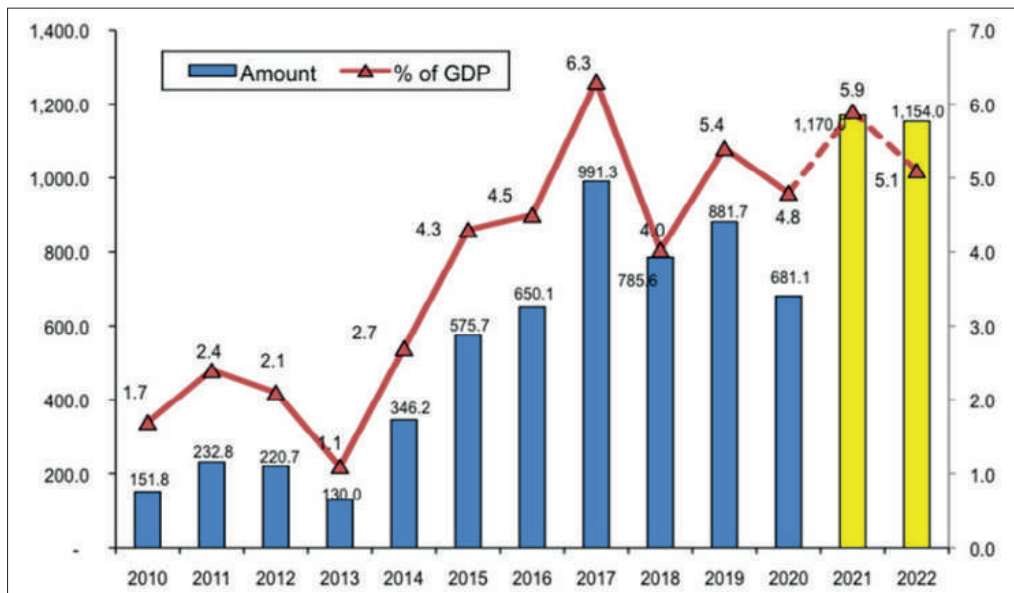


Figure 1. Actual Public Infrastructure Spending 2010 – 2022.

(Amount in Billion Pesos, as % to GDP).

Source: *Facts and Figures, Congressional Policy and Budget Research Department, House of Representatives, May 2021 (No. 30).*

The construction of the large infrastructure projects in the Philippines is catered to by local contractors, and/or international corporations either through consortiums or joint ventures. According to the Contractor's License Act 1965 (PH), as amended by Presidential Decree 1746 of 1980 and its IRR of 1998, all local or foreign contractors intending to engage in contracting works in the Philippines need to register with PCAB to secure a license and designated a category, i.e., from AAAA to E (Trade).

Infrastructure projects are awarded to general contractors who usually sub-contract out some specific scopes which they do not have the capacity in terms of skilled manpower or equipment such as groundwater control or dewatering. Although sometimes, general contractors may self-execute by procuring the necessary equipment and materials, depending on the gravity of the risks involved. Where there is significant risk assessed, general contractors would usually employ specialist subcontractors to mitigate these project risks.

Groundwater control or dewatering in the construction industry is a niche market, although it is diverse enough in its scope. It involves anywhere from a pump rental, wellpoint system, to a full deep well dewatering system. The percentage of the value of temporary works to the overall project value varies from one project to another, and there is no simple ratio that can be generalized that would apply to all situations, which makes estimating the size of this niche market very difficult.

Various anecdotes from conversations with construction practitioners estimate that temporary works usually account for 10% – 15% of the project cost. JICA (2007) in one of their open documents indicated that temporary works are 5% of the project cost, although this is a budgetary figure rather than the actual cost.

Methodology

The researcher utilized primary and secondary data from reliable sources to acquire the necessary data and information for the study to have meaningful results.

Research Design

A descriptive research method was utilized in this study to focus the discussion on the existing conditions of the construction market, specifically on the construction groundwater control or dewatering sector through survey questionnaires, unstructured interviews, and conversations with construction professionals working in the field. This approach helped to understand how similar or related businesses operate and persist, and how the clients buy and employ the service.

Primary data

The researcher conducted the survey by sending questionnaires through Google forms, phone interviews to the selected sample population, and observations to ensure in-depth and detailed firsthand information of the qualitative viewpoint from the participants directly working in the industry. The targeted license categories were chosen as it is more likely that they would have the capacity to take on large infrastructure projects. The respondents or the representatives of these companies were composed of mid-level managers such as procurement engineers, senior managers, directors, or proprietors.

The questionnaire consisted of questions aimed at establishing the potential market demand, understanding the current suppliers of the service, and gauging the requirement for the proposed service based on initial research and observations. The draft of the questionnaire was sent to five laymen who were professionals with at least a bachelor's degree and more than five years of professional work experience. The questionnaire was also reviewed and validated by five field experts with Doctor of Philosophy degrees from Adventist University of the Philippines, a professor from Bulacan State University, and an MBA professional. Through their valuable inputs and comments, the questionnaire was revised accordingly. An endorsement letter was requested from the Dean's office before distributing the questionnaire to the select respondents.

Population and Sampling Technique

The researcher opted to use purposive sampling. The target clientele was the general contractors in Luzon working in the infrastructure sectors. Preference was given to companies which had Specialty-Foundations licenses, as they were most likely directly involved in groundwater control work. Note that the list of the sample population was further filtered by excluding:

- (1) companies which were not registered to take on government projects.
- (2) companies which were into specialist trade except for excavation or foundation works.
- (3) companies which were based outside Luzon.
- (4) and companies which were under the category Trade to C.

The total size of the population considered was 2,685 companies, out of which 382 were included in the survey. Table 1 presents the historical figures.

Table 1

Historical Data of Luzon-based PCAB-Registered Contracting Companies B to AAAA, 2015 – 2020

Year	Total	Annual increase / decrease
2015	2569	
2016	2379	-7%
2017	2545	7%
2018	2474	-3%
2019	2699	9%
2020	2685	-1%

Source: construction.gov.ph

The data used in this study were gathered mainly remotely due to the restrictions brought about by the Covid-19 pandemic and time restraints to conduct the feasibility study. The companies' contact details such as email addresses and office telephone numbers were obtained and researched online. Initially, the link to the survey questionnaires was sent to the respondents' respective email addresses but due to the slow response rate, the data gathering switched to phone calls to engage and encourage the participants. While the majority used the Google form, many of the participants confirmed that they did not require the proposed service during the telephone call, hence their responses were collated using a spreadsheet.

Ethical Considerations

Permission and consent were obtained from the respondents to be part of the survey. The responses gathered are voluntary and the details of the respondents and interviewees are kept confidential to protect their privacy.

Analysis of Data

The researcher pooled all the data gathered from the research and survey and these were tabulated and analyzed to project the sample population trend and estimate the demand requirement and supply availability. To test the viability and profitability of the proposed business, financial analysis metrics were used such as capital budgeting techniques, profitability ratios, and liquidity ratios.

Results and Discussions

The sample population growth rate of this subset of companies was projected using the statistical parabolic method. The resulting projection estimated a growth rate of 7% to 8% per year for the next 5 years.

Demand Analysis

Based on the responses to the conducted survey, approximately 19.9% of the respondents confirmed that they had encountered groundwater in their previous projects. Another 4.5% said that although they did not deal with groundwater previously, they believed that they might encounter it in their future projects, making a total of 24.4% potential customers. The average number of projects of these potential customers is 5.5. The majority of them stated that less than 10% of the projects required groundwater control. The calculated weighted probability that a project would require groundwater control averaged 14%. Among the potential customers, only 86% confirmed that they would entertain employing a new company to assist them in this scope. The result of the survey also estimated that the average cost of a groundwater control scope in their projects was ₱6,290,000.

Supply Analysis

Supply analysis deals with the service providers, i.e., the competitors who exist within and around the target market. The majority of the potential customers (59%) resolved it with in-house capabilities such as by procuring their own dewatering equipment, while the rest either rented the equipment required (23%) or employed sub-contractors (19%).

Based on the survey, observations, online searches, and interviews with general contractors, there seemed to be less than three active professional sub-contractors in Luzon, Philippines that offered comprehensive or turn-key groundwater control services. Major infrastructure projects such as those being executed by large international contractors or joint ventures employed their preferred dewatering sub-contractor from overseas and brought them into the country.

Nonetheless, the supply for groundwater control/construction dewatering service was estimated based on the interviews with four (4) companies that offered similar services. Although the information shared by these companies was limited, their business capacities were estimated and quantified to the best of the judgment of the researcher following the interviews.

Table 2 summarizes the potential demand and estimated supply for construction dewatering or groundwater control services in the next several years.

Business Capacity

To be able to project the market share, the capacity of the proposed business was estimated. Following the interview with construction dewatering companies from the Middle East, a nominal set of plant, equipment, and machinery required to start a business was identified (refer to Table 4). The business capacity was then estimated by projecting the number of projects that the proposed company would be able to secure. The estimated maximum revenue that could be generated from the assets was estimated to be PHP53,520,000 based on estimated current market rates. However, based on the interview and conversation with the indirect competitors, they said that their asset utilization was low in the past two years (i.e., lower than 50%), which could be attributed to the effects of the pandemic. Also to be considered was that a new start-up company would have to advertise itself rigorously to gain the trust of the clientele. A business capacity of ~40% was therefore assumed for the first year of full operations and projected to grow at an average rate of 12% per year for the succeeding years.

Table 2
*Projected demand and supply analysis of dewatering
and groundwater control projects in pesos, 2021-2027*

Year	Demand in Pesos ('000 ₱)	Supply in Pesos ('000 ₱)	% of Satisfied Demand	Unmet Demand ('000 ₱)	% of Unmet Demand	Business Capacity ('000 ₱)	Market Share
2021	1,396,158	1,088,661	78%	307,497	22%		
2022	1,496,782	1,188,201	79%	308,581	21%		
2023	1,609,984	1,301,197	81%	308,787	19%	21,160	7%
2024	1,748,342	1,435,933	82%	312,409	18%	24,210	8%
2025	1,905,567	1,589,774	83%	315,793	17%	26,770	8%
2026	2,075,370	1,760,242	85%	315,128	15%	30,540	10%
2027	2,270,329	1,956,096	86%	314,233	14%	34,000	11%

The estimated market share for 2023 was 7% with a revenue of PHP21,160,000. As the company grows, its market share will also increase correspondingly.

Marketing Study

Porter (1979) enumerated five basic factors that influence the overall competition in an industry, and these combined ultimately determine the profitability of the companies in the industry. Understanding these forces and how they affect the proposed new company is key to devising an effective business strategy.

Among these forces, the bargaining power of customers may be the most significant consideration. The survey revealed that the general contractors' preference in employing groundwater control sub-contractor was the proven experience or track record (41%), closely followed by price (36%). Hence, although the technology offered by the proposed company is novel in the country, pricing would be key to gaining the first contract. For projects where years of experience are a major consideration, an option to form a partnership with an experienced international contractor would be explored.

As the Covid-19 pandemic comes to end, the supply of goods and raw materials is becoming more stable with more and more factories returning to pre-pandemic capacities. This means that the suppliers would have less bargaining power as everyone tries to gain back some market share again.

Although construction dewatering is a very niche and specialist market, the news of large prestigious projects being constructed in the country could lure the large potential competitors from international markets (e.g. Middle East or Europe) to enter. However, it is unlikely that this would be the case in the Philippines given the relatively difficult and bureaucratic system, and volatile political situation.

There are not many substitute products that could easily replace the current technology used in construction dewatering. The current local knowledge about this sector is also lagging, hence, the threat of better technology to replace the service offering is minimal.

As identified in the survey, there were only a few competitors in the market that offered the same full set of services as the proposed business. This puts the company in a strong position against the potential competitors.

Organizational Requirements

Due to the inherent risks involved in the construction industry and in contracting, a corporation would be the logical option as a form of ownership as it limits the liability of the shareholders. The life of the corporation is also not affected by an individual shareholder leaving, which is perceived as a problem in general partnerships especially when the company is engaged in contracting. The shares of ownership are also transferable which makes it more appealing to potential investors. Profits from the operations and maintenance would also be shared between the shareholders proportionate to the investment they put in.

Conversely, some of the disadvantages of a corporation are that it costs more to set up. It also entails much more documentary and reporting processes both in the establishment phase and in operations, and the tax rate is generally higher than another form of ownership such as sole proprietorship. Corporations are also more heavily regulated and dissolving one would involve the intervention of the state. Potential clients would also be considering the extent of the corporation's liability and may discourage them to enter contracts if they feel that the paid-up capital does not cover the risks of the project.

Once the company has been registered with the Securities and Exchange Commission (SEC), its city or municipality business licenses secured, and registration as an employer with the Bureau of Internal Revenue (BIR), Social Security System (SSS), Philippine Health Insurance System (Philhealth), and Home Development Mutual Fund (Pag-ibig) completed, other trade licenses can be secured such as the contracting license from PCAB, as well as registered well driller registration from the National Water Resources Board (NWRB).

The costs involved in securing permits and licenses, including other organizational requirements, are presented in Table 3. Note that the business permit from the city or municipality increases after the first year of operations, which will be proportional to the revenue of the business.

Table 3
Organizational Requirements and Costs

Requirement	Amount (₱)
Budget for Feasibility Study	35,000
SEC Registration	3,500
Business Permit	1,110
BIR Registration	500
Barangay Business Clearance	200
PCAB Contracting License (Trade or E)	1,342
NWRB Well Drilling License	5,000
Total	₱46,652

The proposed organizational structure for the business is presented in Figure 3. It is hierarchical where authority flows from top to bottom. As required for corporations, a Board of Directors (BoD) will be appointed by the shareholders to oversee and manage the business. It is envisioned that the private investors will form the BoD themselves. The BoD will set the direction of the business, and they will formulate the company's mission, vision, and value statements, including detailed strategic plans.

To execute the plans, the BoD will hire and appoint a General Manager who will be in charge of the day-to-day operations of the business. The General Manager will establish the different departments and will work closely with all the department heads to ensure that the strategic plans and objectives are carried out.

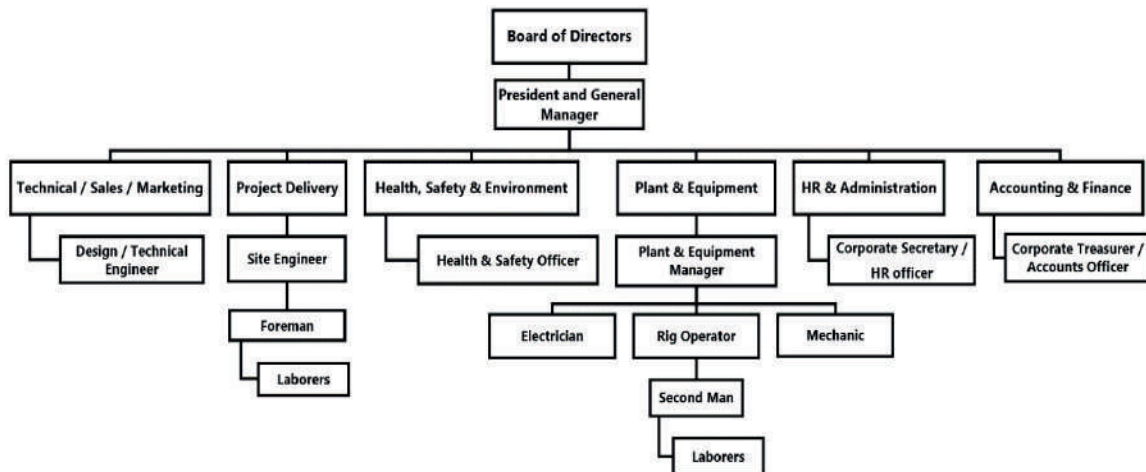


Figure 2. *Proposed Organizational Chart*

Technical and Operations Study

A typical construction dewatering project can be broken down into the following elements:

- Engineering and design,
- Installation of chosen technique, either wellpoints or abstraction wells;
- Installation and commissioning of pumping system;
- Operation, maintenance, and monitoring of the pumping system.

Each project is unique, and these elements can be tailored to suit the individual requirement. Conversely, these elements can also be standalone and offered as separate services as required by the customers.

The following Figure 3 describes the typical flow of securing and delivering a construction project that employs groundwater control. It shows the flow of processes for a typical project, from inquiry to completion. In general, 5 major processes are involved in the delivery of a typical construction dewatering project, and each of these processes can be further broken down into their elements and flowcharts.



Figure 3. *Typical flow process chart for a construction dewatering/groundwater control project.*

The duration of each of the processes is not fixed and varies from one project to another. A specific program is usually prepared to suit the actual details of the project.

The ground conditions in the country vary significantly from one place to another, depending on how these were formed through geologic time. Unconsolidated sediments underlie most part of the cities of Metro Manila. Interbeds of sandstone, siltstones, mudstone, and channel-filled conglomerates are the dominant lithology. Other areas are underlain by unconsolidated quaternary alluvial deposits composed of clay, silt, and sand (DoTr, 2020).

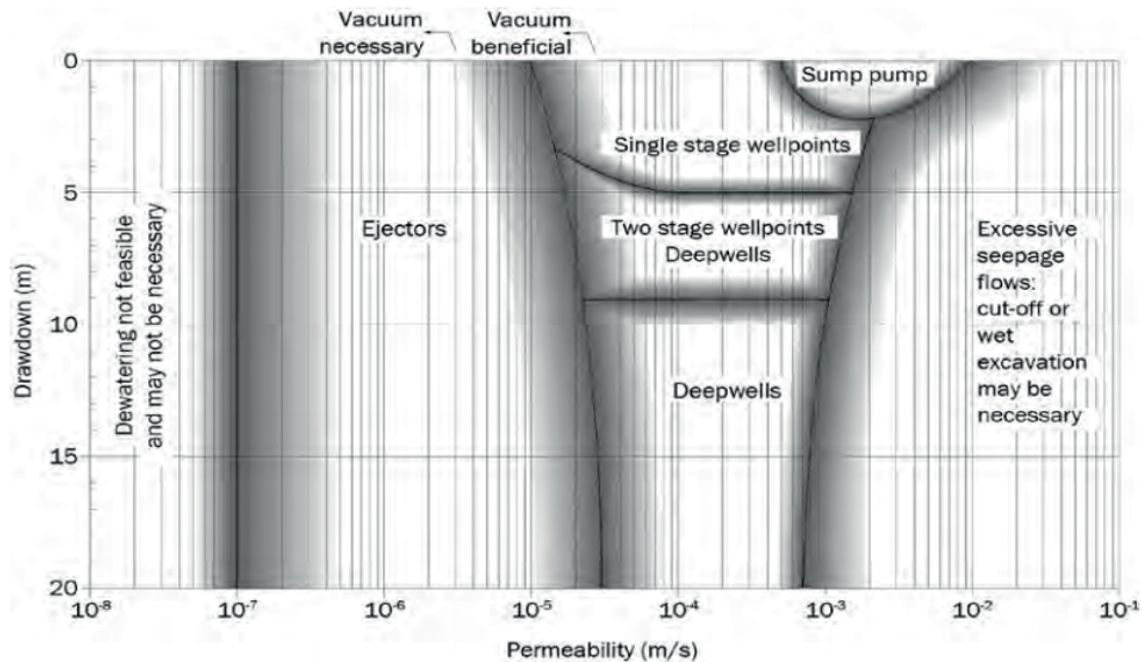


Figure 4. *Pumping techniques applicable in soils.*

Source: Groundwater control: design and practice (2nd ed., p. 16), by Preene et. al, 2016, CIRIA C750. Copyright 2016 by CIRIA

Nevertheless, for purposes of construction groundwater control, soils can be generalized and classified in terms of their hydraulic conductivities as shown in Figure 4. Several pumping techniques can be employed to dewater the excavations depending on depth and the ground permeability, such as the following:

- a. Sump pumps (gravity fed) using either electrical submersible or surface suction pump,
- b. Wellpoints (vacuum-assisted),
- c. Abstraction wells or deep wells,
- d. Ejectors

Prior to the installation of the full dewatering system, it would be beneficial to do pumping tests to verify the sufficiency and effectiveness of the proposed technique. The design process goes through a series of reviews and evaluations to properly select a suitable technique to be employed for every specific project (Preene et. al., 2016; Cashman and Preene, 2011).

Drilling and installation of abstraction wells require permission from the National Water Resources Board (NWRB) through the project proponents (i.e., general contractor, project owner, or relevant government offices). The Clean Water Act of 2004 (PH) and its IRR through the Department of Environment and Natural Resources provide the guidelines for discharging wastewater. However, technically, the guideline appears to be specific to manufacturing or production industries, and it does not specifically mention anything about construction dewatering and groundwater control.

After the installation of the groundwater control system, this will be operated, maintained, and monitored to ensure that it achieves its intended purpose, which is to temporarily reduce the groundwater table below the excavation levels. Information gathered from this process will be reviewed and evaluated and will be fed back to the design engineer and into the organization's information database. Should it be required, the design of the system will be adjusted to take into consideration the actual site conditions observed.

Costs of Goods (Services) Sold

A groundwater control and construction dewatering company cater to a very niche market, hence it requires very specific plant and equipment to provide these services. Table 4 summarizes the main equipment for providing construction groundwater control services which include their estimated costs. The total estimated capital expenditures for a minimum set of plant, equipment, and machinery amounts to approximately ₱20,207,472, with an estimated annual depreciation cost of ₱2,477,499. Yard and office structure, including the furniture and fixtures, is also required. The estimated total cost of setting up an office and yard amounts to ₱1,457,300 with an annual depreciation cost of ₱138,270.

Table 4
List of Major Machinery and Equipment

Description	Qty	Unit	Unit Cost (₱)	Item Cost (₱)	Economical Life (Years)	Salvage Value (₱)	Depreciation Cost (₱)
Hydraulic drilling rig with tools and accessories (basic), 93kW; including drill rods, drill bits, mud pump	1	set	3,300,000	3,300,000	7	330,000	424,286
High head mud pump (Godwyn HL80 or similar)	1	unit	884,000	884,000	7	100,000	112,000
Well pointing pumps - Piston pumps, up to 7.5kW (Geho)	4	unit	884,000	3,536,000	7	50,000	498,000
6" Centrifugal pumps, up to 30kW (Oasis, Defu, or similar)	4	unit	648,000	2,592,000	7	50,000	363,143
Main distribution board, up to 200Amps	2	unit	499,500	999,000	10	20,000	97,900
Diesel power generators, up to 100kVA	2	unit	754,000	1,508,000	7	100,000	201,143
Discharge tank	1	unit	227,472	227,472	10	15,000	21,247
Electrical control panels, 6-way, up to 5.5kW	10	unit	56,700	567,000	10	56,700.00	51,030
Pick-up vehicle (4x4, MT, diesel)	1	unit	1,735,000	1,735,000	7	173,500.00	223,071
Transporter vehicle, Hyundai H100	1	unit	1,254,000	1,254,000	7	125,400.00	161,229
Foton Hurricane EST-M 4x2	1	unit	2,925,000	2,925,000	10	292,500.00	263,250
Telescopic crane 5 tons							
Air compressor	1	unit	680,000	680,000	10	68,000.00	61,200
			Total	20,207,472			2,477,499

Similarly, tools and equipment are also required in day-to-day operations and maintenance. These expendable tools usually have a useful life of 3 years or less, and the total estimated cost is ₱359,580 per year which is projected to increase by 3% to account for inflation. Other direct costs related to the delivery of the service include the materials, labor, motor and transport, diesel fuel, rental of 3rd party equipment, and equipment servicing and maintenance. The total costs of goods or services sold are summarized in Table 5.

Table 5
Costs of Goods (Services) Sold, in Philippine Pesos

	2023	2024	2025	2026	2027
Direct Materials	4,428,870	5,232,710	6,170,508	7,159,866	8,203,030
Direct Labor	2,721,510	2,857,586	3,000,465	4,531,755	4,758,342
Motor and Transport	336,000	369,600	406,560	447,216	491,938
Diesel Fuel	414,000	476,100	547,515	629,642	724,088
Rental of 3rd Party Equipment	200,000	206,000	212,180	218,545	225,101
Equipment Servicing / Maintenance	637,800	733,470	843,491	970,015	1,115,517
Minor Tools and Equipment	359,580	370,367	381,478	392,922	404,710
Depreciation of Major Plant, Machinery	2,477,499	2,477,499	2,477,499	2,477,499	2,477,499
Total	11,575,259	12,812,646	14,133,971	16,926,912	18,505,082

Apart from the direct costs, overhead and operating costs are also incurred. These include the overhead costs such as the salaries of management and administration, lease of land space, depreciation of the office and yard fixture, bank charges, and utility costs as summarized in Table 6.

Table 6
Overhead and Other Operating Expenses

	2022 (₱)	2023 (₱)	2024 (₱)	2025 (₱)	2026 (₱)	2027 (₱)
Depreciation of Office Yard Assets		138,270	138,270	138,270	138,270	138,270
Management and Staff Salaries	251,586	3,022,268	3,173,381	3,332,050	3,498,653	3,673,586
Lease of Land Space		1,440,000	1,440,000	1,440,000	1,440,000	1,440,000
Administration expenses		2,296,000	2,418,040	2,444,741	2,687,243	2,715,571
Utility Costs	63,000	300,000	309,000	318,270	327,818	337,653
Bank Charges		60,000	61,800	63,654	65,564	67,531
Total	314,586	7,256,538	7,540,491	7,736,985	8,157,548	8,372,611

Capital Investment

Capital investment is the amount of money invested into a company to acquire physical assets, such as real estate, plant, equipment, or major machinery, for use in furthering its long-term business goals and objectives (Kenton, 2021). The capital investment includes organizational expenses, capital expenditures, and an amount for the first six months as working capital. Table 7 shows the total capital requirement for the proposed business.

Table 7
Estimated Capital Requirement

Description	Cost (₱)
Organizational expenses (Table 3)	46,652
Capital Expenditures on Machinery and Equipment (Table 4)	21,664,772
Working Capital (1/2 x Year 2023 of Tables 5 and 6)	8,078,014
Total Capital Requirement	29,819,438

Source of Funds

The initial source of funds will be from the equities of private investors. 300,000 shares of common stocks with ₱100 par value will be offered to willing private investors to raise the required capital.

Contingency Plans

These are alternative courses of action to be undertaken if the original business plan does not go well. There are several avenues that the company can pursue, such as:

Water well drilling business. The equipment and machinery used in construction dewatering and groundwater control business are derived from the water well drilling industry. The demand for water supply for domestic, agricultural, or industrial use in the Philippines never seems to wane. Residential developments which are not catered to by the water service providers rely on deep wells for water supply. Manufacturing plants that are remotely located also use deep wells for their water supply. Shallow wells are also required in farmlands where irrigation water is not available or exists. This may be a viable business in lieu of construction dewatering.

Sewage network lines overpumping or by-pass. The local government units regularly clean clogged drainage networks and sometimes they hire equipment for their work. The pumps used in construction dewatering are similar to the ones used in this scope of work, hence this can also be a viable business alternative or even an extension of the original business.

Water distribution utility facility management. Residential developments such as subdivisions often employ operators of the water distribution system rather than run by the homeowners' association. This can also be a viable alternative for the business as the equipment and machinery are already present.

Financial Analyses

The financial analyses are based on the Projected Statement of Comprehensive Income, Projected and Projected Balance Sheet is presented in Tables 9 and 10. There is a loss in the first year during its pre-operating phase, however, this will be recovered back when the business swings to full operations. Figure 5 presents the graph of the projected gross revenue, gross profit, and net profits from 2022 to 2027.

From 2023 when the operations will be fully functional, it is projected that the business will turn over approximately Php 21,160,000. The net profit before taxes stands at Php 2,771,090, which represents 13% of the gross revenue. After taxes, the net profit is reduced to Php 1,939,763, which is 9% of the revenue.

Table 9*Statement of Projected Comprehensive Income, in Philippine Peso*

	2022 (₱)	2023 (₱)	2024 (₱)	2025 (₱)	2026 (₱)	2027 (₱)
Sales Revenue		21,160,000	24,210,000	26,770,000	30,540,000	34,000,000
Less: Cost of Goods/Service Sold						
Direct Materials	-	3,985,983	5,232,710	6,170,508	7,159,866	8,203,030
Direct Labor	-	2,721,510	2,857,586	3,000,465	4,531,755	4,758,342
Motor and Transport costs	-	336,000	369,600	406,560	447,216	491,938
Diesel Fuel	-	414,000	476,100	547,515	629,642	724,088
Rental of 3rd Party Equipment	-	200,000	206,000	212,180	218,545	225,101
Minor Tools	-	359,580	370,367	381,478	392,922	404,710
Equipment Servicing / Maintenance	-	637,800	733,470	843,491	970,015	1,115,517
Depreciation of Equipment	-	2,477,499	2,477,499	2,477,499	2,477,499	2,477,499
Gross Profit (₱)	-	10,027,628	11,486,669	12,730,304	13,712,541	15,599,775
Less: Operating Expenses						
Pre-operating Expenses	46,652					
Utility Costs	63,000	300,000	309,000	318,270	327,818	337,653
Management and Staff Salaries	251,856	3,022,268	3,173,381	3,332,050	3,498,653	3,673,586
Land Space Rental	240,000	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000
Administrative Expenses	122,000	2,296,000	2,418,040	2,444,741	2,687,243	2,715,571
Bank Service Charge	5,000	60,000	61,800	63,654	65,564	67,531
Depreciation Office Equipment	-	138,270	138,270	138,270	138,270	138,270
Net Profit before Tax (₱)	-728,508	2,771,090	3,946,178	4,993,319	5,554,993	7,227,165
Corporate Tax (30%)	-	831,327	1,183,853	1,497,996	1,666,498	2,168,150
Net Profit after Tax (₱)	-728,508	1,939,763	2,762,325	3,495,323	3,888,495	5,059,016

Table 10
Statement of Projected Financial Position 2022 – 2027, in Philippine Peso

	2022	2023	2024	2025	2026	2027
Current Assets:						
Cash	7,606,720	11,319,544	17,522,683	24,868,135	32,858,755	42,325,938
Accounts Receivable		3,597,200	4,115,700	4,550,900	5,191,800	5,780,000
Inventory		442,887	532,203	626,478	725,932	830,789
	7,606,720	15,359,631	22,170,585	30,045,514	38,776,487	48,936,726
Non-current Assets:						
Major Plant, Machinery	20,207,472					
Less: Accumulated Depreciation		17,729,973	15,252,475	12,774,976	10,297,477	7,819,979
Yard and Office Equipment	1,457,300					
Less: Accumulated Depreciation		1,319,030	1,180,760	1,042,490	904,220	765,950
Total Assets	29,271,492	34,408,634	38,603,820	43,862,980	49,978,184	57,522,655
Liabilities and Equity:						
Current Liabilities:						
Accounts Payable		2,315,052	2,562,529	2,826,794	3,385,382	3,701,016
Accrued Expenses		51,000	52,530	54,106	55,729	57,401
		2,366,052	2,615,059	2,880,900	3,441,112	3,758,417
Equity:						
Common Shares	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000
Retained Earnings	-728,508	2,042,583	5,988,761	10,982,080	16,537,073	23,764,238
Cash Dividends Paid				0	0	0
Retained Earnings, Net				10,982,080	16,537,073	23,764,238
Total Liabilities and Equity	29,271,492	34,408,634	38,603,820	43,862,980	49,978,184	57,522,655

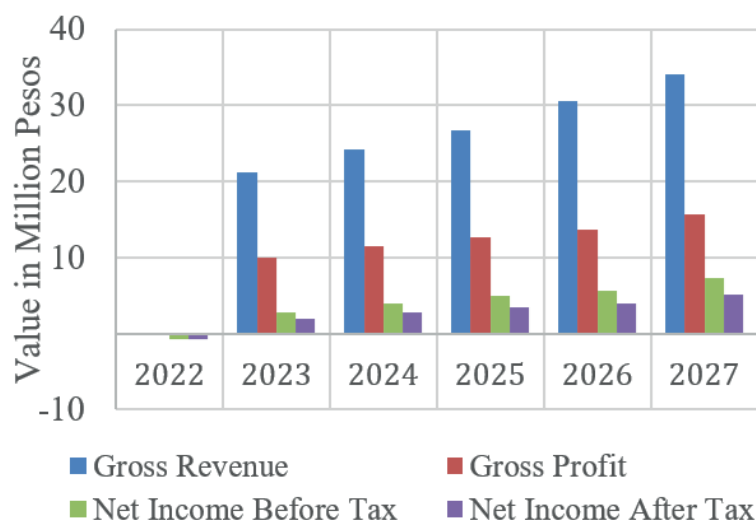


Figure 5. Gross Revenue, Gross, and Net Profit

The total assets amounted to PHP 29,271,492 in 2022 and are projected to increase to PHP 57,522,655 by 2027, where 74% of this is cash. While it is very good that the company is very liquid, it would be better if the cash is re-invested to generate more revenue and expand the business. The BoD will have to explore how to expand the business such as reinvesting in additional plant and equipment, expanding geographically, or expanding the services portfolio that it offers.

Capital Budgeting Metrics

These metrics look into the long-term outlook of investment and evaluate its worthiness. For this study, the researcher calculated the Net Present Value (NPV), Internal Rate of Return (IRR), Benefit-Cost Ratio (BCR), and Average Rate of Return (ARR). The results are presented in Table 11.

Net Present Value (NPV). The estimated NPV of the business venture over five years and assuming an interest rate of 7% is Php 5,517,326, indicating an acceptable proposal.

Internal Rate of Return (IRR). The estimated IRR is estimated to have an annual return rate of 14.69%, which seems a sustainable ratio.

Benefit-Cost Ratio (BCR). The calculated BCR is 1.19, indicating that the benefits outweigh the costs, hence the proposal is acceptable.

Average Rate of Return (ARR). The ARR is computed to be 16.43% over five years, which implies a promising investment.

Payback Period. The estimated payback period of the investment is 4.29 years.

Table 11

Capital Budgeting Metrics

Metrics	2022 to 2027
Net Present Value (NPV)	Php 5,517,326
Internal Rate of Return (IRR)	14.69%
Benefit-Cost Ratio (BCR)	1.19
Average Rate of Return (ARR)	16.43%
Payback Period	4.29 years

Profitability Ratios. The profitability ratios of the business reflect the ability to generate income relative to its revenue, operating costs, balance sheet assets, or shareholders' equity. The summary of the calculated ROR, ROI, and ROA is tabulated in Table 12 below.

Table 12

Calculated ROR, ROI, ROA

Year	ROR	ROI	ROA
2023	13%	9%	8%
2024	16%	13%	10%
2025	19%	17%	11%
2026	18%	19%	11%
2027	21%	24%	13%

Return on Revenue (ROR). The estimated ROR starts at 13% in the first year of full operation, and increases to 21% after five years, averaging 18% annually.

Return on Investment (ROI). The business proposal has an estimated ROI of 9% in the first year which gradually increases to 24% in the fifth year. The average annual ROI of stocks investment is approximately 7% considering inflation (Birken & Curry, 2021), implying that the business proposal has an above-average return.

Return on Asset (ROA). Similarly, the ROA is projected to be 8% in the first year which increases to 13% in the fifth year. The yearly increase implies more utilization of the assets to generate revenue and profit.

Table 13 summarizes the results of calculations of the other metrics which are the breakeven point, gross profit margin, and net profit margin.

Table 13
Breakeven point and gross profit margin

	Breakeven point (₱)	Gross Profit Margin	Net Profit Margin
2023	15,312,528	47%	9%
2024	15,892,796	47%	11%
2025	16,269,768	48%	13%
2026	18,168,151	45%	13%
2027	18,248,259	46%	15%

Breakeven Point. The calculated breakeven point of the business operations ranges from Php 15.2M to Php 18.2, with an average of Php 16.8M.

Gross Profit Margin. The gross profit margin averages 47% for the five years of operation.

Net Profit Margin. The net profit margin is a healthy 9% in the first year and increases to 15% after five years.

Liquidity Ratios. These are the financial metrics used to determine the ability to pay off current debt obligations without raising external capital. Table 14 summarizes the results of the current ratio and acid-test ratios.

Table 14
Current Ratio and Acid Test Ratio

Year	Current Ratio	Acid Test Ratio
2023	6.5:1	6.3:1
2024	8.5:1	8.3:1
2025	10.4:1	10.2:1
2026	11.3:1	11.1:1
2027	13:1	12.8:1

The ratios indicate that the proposed business operation is very liquid and that it can pay off its long-term or short-term liabilities by at least six times over. Reviewing the balance sheet, the proposed company would be cash rich. The investors may opt to use this cash for further investments or return it as dividends to the shareholders.

Apart from the financial benefits to the investors, the proposed business venture would bring value to the community and society by providing jobs and at the same time helping build the vision of a more progressive country. The proposed business would also raise awareness in the construction industry about the best practices and superior technologies that are employed in the international construction stage.

Broadly speaking, establishing the local groundwater control and construction dewatering company in the country provides opportunities for Filipino entrepreneurs to keep the profits on Filipino projects.

Conclusions

Considering all the various aspects included in this business research and feasibility study, the researcher concludes that there is a sizable market for establishing a groundwater control and construction dewatering company in the Philippines. The proposed company would address the construction industry's requirement for a complete solutions and services provider for groundwater control and construction dewatering. The capital requirement for the business which is estimated to be Php 29.8M and an average rate of return of 18%, which is above the market average. The average net profit after tax over the period 2023-2027 is projected to be ₱3.4 million. This could be used to fund the expansion of the business, or partly released as cash dividends to the shareholders. Other financial metrics such as capital budgeting, liquidity, and profitability ratios also show promising estimates which indicate that the proposed business venture is feasible and viable.

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MUSCULOSKELETAL PROBLEMS EXPERIENCED BY COLLEGE STUDENTS DURING COVID-19 PANDEMIC

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Abstract

CCOVID-19 pandemic made almost everything stop including schools. Learning was online that students tend to be confined into a constant position. With this situation, students are said to be more at risk because of the long-term position when doing their school requirements. This descriptive study examined the musculoskeletal problems of college students during COVID-19 pandemic using a questionnaire. The study was conducted to college students who were enrolled during the second semester of the school year 2020-2021 in a faith-based university located in Silang, Cavite, Philippines. A total of 618 randomly selected students across all colleges participated in the study. The students were from the College of Arts and Humanities (84), College of Business (129), College of Dentistry (89), College of Education (51), College of Health (131), College of Nursing (101), College of Science and Technology (17), and College of Theology (16). This study proves that the college students in a faith-based university experienced musculoskeletal problems. They *sometimes* experienced muscle strain, vision problems, back pain, and neck pain but rarely experienced carpal tunnel syndrome. Overall, the students *sometimes* experienced musculoskeletal problems. Recommendations were made based on the results of the study.

Keywords: *musculoskeletal problems, muscle strain, vision problems, back pain, neck pain, tunnel syndrome*

The virus COVID-19 pandemic shocked the world which made almost everything stop. Most places where people gather, like schools, have been shut down. However, students continue studying through online learning, thus keeping schools still operational. Online learning also secured the students' safety from contacting the virus. This major and sudden transformation made the people especially the students worried. Further, this significant change is the fast and unavoidable appropriation and dissemination of web-based learning or e-learning (Angdhiri, 2020).

Since learning is online, students tend to sit or be confined into a constant position or posture most of the time. According to a systematic review, self-reported musculoskeletal pain among schoolteachers revealed a range of 39% to 95%. The most predominant body locales seem, by all accounts, to be the back, neck, and upper limbs. Based on their report of all accounts, nursery instructors are certain to have low back discomfort according to Erick and Smith (2011).

About 92% of chiropractors stated in a survey done by the American Chiropractic Association (Bernat, 2020) reveals that in the emergence of COVID-19 many patients complained from neck, back, or other musculoskeletal issues. In a conducted interview, Dr. Vagy shared his ideas towards the common posture injuries on low back pains and neck pains due to non-ergonomic sitting. Besides, students are said to be more at risk because of the long-term position when doing their school requirements. This risk also happens during virtual classes where students need to slump on the floor or lie on the bed for long hours. Among the common conditions that students experience due to virtual classes are muscle strain, carpal tunnel syndrome, and vision problems.

Borhany et al. (2018) found in their study that duration of computer and internet used for e-learning may affect individuals and feel this symptom in different anatomical sites like neck, shoulder, wrist, and head.

Wilkin (2020) cited Kumar et al. that the ergonomics theory would be helpful to understand the concept. Ergonomics improves workplace efficiency by reducing human tiredness and pain while increasing safety. Strains, carpal tunnel syndrome, and inflammation of muscles are common problems connected with long durations of computer use (Ameynero, 2018).

Engeström (2000) cited the activity theory by Lev Vygotsky et al., that the purpose of this theory is to comprehend an individual's mental capacity by analyzing the cultural and technical components of their human behaviors. The concept of activity is the starting point for activity theory. A system of human "doing" in which a person works on an object to accomplish a desired result is characterized as an activity. To do this, the subject uses external (computer) or internal (plan) and as a result, the activity would be produced.

Based on the studies mentioned earlier, several musculoskeletal problems are experienced by the respondents as effect of virtual classes, thus this study determined the musculoskeletal problems experienced by college students in a faith-based university during COVID-19 pandemic. The result of this study would be beneficial to both the teachers and students. Awareness of the various musculoskeletal problems will help them find strategies to minimize such problems.

Methodology

Research Design

This study utilized descriptive research design to examine the musculoskeletal problems of college students during COVID-19 pandemic. The study was conducted to college students from a faith-based university located in Silang, Cavite, Philippines. They were enrolled during the second semester of the school year 2020-2021.

Population and Sampling Technique

A total of 618 respondents across all colleges participated in the study. The participating students were from the College of Arts and Humanities (84), College of Business (129), College of Dentistry (89), College of Education (51), College of Health (131), College of Nursing (101), College of Science and Technology (17), and College of Theology (16).

The researchers utilized a random sampling technique to select the students from each college represented from first year to fourth year. They selected a small group of people at random to represent a larger population in a random sample. The goal was to obtain a sample of college students that was representative of the entire population (Cherry, 2021).

Instrumentation

The researchers utilized a set of questionnaires, the demographic profile and the musculoskeletal problems questionnaire. The demographic profile such as sex, age, and college were determined. The musculoskeletal problems questionnaire which was modified from St. Joseph School (2020) was utilized in this study. It consists of five dimensions: muscle strain, carpal tunnel syndrome, vision problems, back pain, and neck pain. Each dimension has five items of questions. The modified questionnaire was content validated and pilot tested. The resulting Cronbach alpha reliability for musculoskeletal problems questionnaire was .771. The five-point scale Always, Often, Sometimes, Rarely, and Never were used to assess if the experience the different musculoskeletal problems.

Research Ethics

The researchers obtained clearance from the Ethics Review Board of the faith-based university where the study was conducted. A signed informed consent form was obtained from each respondent prior to the data gathering. It was explained to the respondents that participation was entirely voluntary, and that their approval would be strictly followed. The confidentiality and anonymity of the individuals were known only to the researcher. They were assured that no information would be disclosed to anyone.

Statistics. The data was analyzed using SPSS version 26, particularly to find the mean and standard deviation.

The musculoskeletal problems in terms of muscle strain are presented in Table 18. It is composed of 5 items. The descriptive results based on the grand mean 3.48 ($SD = .71507$) revealed a grand scale response of sometimes. This implies that the respondents sometimes experience muscle strain.

Results and Discussion

The study presents the musculoskeletal problems experienced by the college students in a faith-based university in terms of muscle strain, carpal tunnel syndrome, vision problems, back pain and neck pain. Tables 1-6 present the results.

Muscle Strain

The results in Table 1 show that college students often and sometimes experienced muscle strain. Item 1 was rated the lowest (I have limited motion due to muscle discomfort = 2.90). Item number 2 had the highest score which states, "I feel pain in my muscle when I am in awkward posture" with a mean of 4.02 ($SD = .963$). The results confirmed the study by Pietrangelo (2019) which found that muscle strain usually occurs because of improper use of muscles that limits the movement due to the pain students feel while attending online classes. The study also showed that a student's muscle strain is treatable at home. It can be treated with rest, ice, compression, and elevation that can help to ease the pain.

Table 1
Descriptive Results in Terms of Muscle Strain

No.	Item	M	SD	SR
2	[I feel pain on my muscle when I am in an awkward posture.]	4.02	.963	Often
5	[I feel uncomfortable whenever I have muscle cramps.]	3.81	1.072	Often
1	[I experience muscle weakness when sitting for a long period of time.]	3.75	1.048	Often
3	[I feel some sort of discomfort whenever I do stretching.]	2.99	1.168	Sometimes
4	[I have limited motion due to muscle discomfort.]	2.90	1.195	Sometimes
Overall Mean		3.49	0.71507	Sometimes

Carpal Tunnel Syndrome

The musculoskeletal problems in terms of carpal tunnel syndrome are presented in Table 2. It is composed of 5 items. The descriptive results based on the grand mean 2.46 ($SD = 1.054$) revealed a grand scale response of *seldom*. This implies that the respondents had seldom experienced the carpal tunnel syndrome. However, looking at the three other items, college students experienced numbness in their hands, weakness in their hands, and tingling sensations in their hands.

Table 2
Descriptive Results in Terms of Carpal Tunnel Syndrome

No.	Item	M	SD	SR
2	[I have experienced numbness in my hand.]	2.73	1.266	Sometimes
5	[I have experienced weakness in my hand.]	2.55	1.208	Sometimes
1	[I typically have pain in my wrist while attending classes.]	2.50	1.232	Sometimes
4	[I feel tingling sensations in my hand.]	2.44	1.196	Seldom
3	[I have difficulty with grasping the objects such as pens and keyboard.]	2.09	1.206	Seldom
Overall Mean		2.46	1.05415	Seldom

Item number 2 had the highest score, which states, “I have experienced numbness in my hand” with a mean of 2.73 ($SD = 1.266$). The result confirmed the findings from Cleveland Clinic (2019) that students may experience numbness in their hand when they do activities that involve repetitive finger used in a long run and extreme wrist motions that make them uncomfortable doing their requirements online.

Vision Problem

The musculoskeletal problems in terms of vision problems are presented in Table 3. It is composed of 5 items. Four out of the five items were sometimes experienced by the college students. The overall results based on the grand mean 3.09 ($SD=1.07181$) revealed a grand scale response of *sometimes*. This implies that generally, the respondents had sometimes experienced vision problems during online classes.

Table 3*Descriptive Results in Terms of Vision Problem*

No.	Item	M	SD	SR
5	[I have experienced headaches after viewing my device screen for a long time.]	3.66	1.233	Often
3	[I have experienced watery eyes during classes.]	3.06	1.268	Sometimes
1	[I have experienced blurry vision seeing the object during class.]	3.05	1.318	Sometimes
4	[My eyesight problem resurfaced as soon as my online classes started.]	2.88	1.390	Sometimes
2	[I have difficulty reading what is on my device screen.]	2.78	1.281	Sometimes
Overall Mean		3.09	1.07181	Sometimes

Item number 5 had the highest score, which states, “*I have experienced headaches after viewing my device screen for a long time*” with a mean of 3.66 ($SD = 1.23$). The result confirmed that vision problems may cause headaches to students who spend so much time looking at lighted screen-computer that could significantly impact their academic and social experiences in their college life (Staff Writers, 2021).

Back Pain

The musculoskeletal problems in terms of back pain are presented in Table 4. It is composed of 5 items. The descriptive results based on the grand mean 3.21 ($SD = 1.00$) revealed a grand scale response of sometimes. This implies that the respondents had sometimes experienced back pain in both synchronous and asynchronous classes.

Table 4*Descriptive Results in Terms of Back Pain*

No.	Item	M	SD	SR
1	[My back hurts when I sit for a long period of time.]	4.11	1.035	Often
2	[I have back pain since virtual classes started.]	3.38	1.277	Sometimes
3	[I feel back discomfort when I stand immediately.]	3.01	1.271	Sometimes
4	[I feel a shooting pain at my back.]	2.96	1.356	Sometimes
5	[Back pain prevents me from performing class activities.]	2.61	1.262	Sometimes
Overall Mean		3.21	1.00060	Sometimes

Item number 1 had the highest score which states, “*My back hurts when I sit for a long period of time*” with a mean of 4.11 ($SD = 1.035$). The result confirmed the studies of De Carvalho (2015) and Purti and Pillai (2018) that sitting for a long period of time has the potential to cause low back discomfort due to the loading, strain, and compression tissues of the low back and buttocks that may cause the students discomfort attending online classes even doing their requirements and it has the ability to harm a student’s quality of life as well as academic achievement.

Neck Pain

The musculoskeletal problems in terms of neck pain are presented in Table 5. It is composed of 5 items. The descriptive results based on the grand mean 2.99 ($SD = .849$) revealed a grand scale response of sometimes. This implies that the respondents had sometimes experienced neck pain attending online classes and doing some requirements in a lengthy period.

Table 5
Descriptive Results in Terms of Neck Pain

No.	Item	M	SD	SR
1	[I can comprehend well with no pain in my neck.]	3.56	1.157	Often
4	[I exercise my neck from time to time.]	3.41	1.161	Sometimes
3	[I have neck pain that worsens when I sit for a long period of time during virtual classes.]	2.74	1.321	Sometimes
5	[I develop stiff neck doing my entire requirements.]	2.63	1.263	Sometimes
2	[I can hardly do anything because of the pain on my neck.]	2.59	1.220	Sometimes
Overall Mean		2.99	.84956	Sometimes

Item number 1 had the highest score which states, “*I can comprehend well with no pain in my neck*” with a mean of 3.56 ($SD = 1.157$). The result confirmed the study of Shah and Desai (2021) which found that the majority of the students can comprehend their lesson without any pain on their neck.

The descriptive result of the overall musculoskeletal problems is presented in Table 6 with the grand mean of 3.02 ($SD = .729$). This indicates that the grand scale response is sometimes. This implies that students sometimes experienced muscle strain, seldom experienced carpal tunnel syndrome, sometimes experienced vision problems, sometimes experienced back pain in both synchronous and asynchronous classes and sometimes experienced neck pain when attending online classes and doing some requirements in a lengthy period. These health problems certainly affected their perception of learning.

Table 6
Descriptive Results for Overall Musculoskeletal Problems

No.	Item	M	SD
1	[I can comprehend well with no pain in my neck.]	3.56	1.157
	Muscle Strain	3.49	0.715
2	Carpal Tunnel Syndrome	2.46	1.054
3	Vision Problem	3.09	1.072
4	Back Pain	3.21	1.000
5	Neck Pain	2.99	.849
Overall musculoskeletal problems		3.02	.729

Among the musculoskeletal problems, the dimension with the highest mean score was muscle strain with a mean of 3.49 ($SD = .0.715$), followed by back pain with a mean of 3.21 ($SD = 1.000$), and vision problem with a mean score of 3.09 ($SD = 1.072$).

Learners spent a substantial amount of time sitting in front of a computer. Individuals were exposed to a much smaller screen such as a mobile during online classes. This is a significant risk factor that can cause vision problems.

Being in inadequate, nasty, and misaligned classrooms for several months could probably be the cause of musculoskeletal problems particularly back pain and neck pain for students. Most lacked appropriate and safe equipment to maintain healthy body balance when working on a computer or using a phone gadget. Furthermore, social isolation made it difficult for students to engage in physical activity exercises that can cause muscle weakness (Gomes et al., 2021).

Conclusions

This study proves that the college students in a faith-based university experienced musculoskeletal problems. They sometimes experienced muscle strain, vision problems, back pain, and neck pain but rarely experienced carpal tunnel syndrome. These were probably due to the learning environment, posture, and lack of exercise brought about by the lockdown during the pandemic.

Recommendations

The following are the recommendations of the study:

1. Students should apply the ergonomic principles while studying online. This will help them improve their health and productivity.
2. Teachers must monitor and encourage students to apply the ergonomic principles in the classroom or in their online learning classes.
3. Future researchers are encouraged to use the results of this study to create intervention programs on awareness of ergonomic principles and their benefits. Furthermore, a similar study can be conducted to the teachers to determine the musculoskeletal problems among teachers.

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EMPLOYEES' COMMITMENT, JOB SATISFACTION AND LEADERSHIP SATISFACTION AMONG THE EMPLOYEES OF ADVENTIST UNIVERSITY OF THE PHILIPPINES

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Abstract

Employees' commitment to universities is an important factor for the successful operation of an institution. Job satisfaction and leadership satisfaction are identified in research as necessary factors that influence employee's commitment. This descriptive study aimed to identify the level of job satisfaction of the employees and the level of leadership satisfaction of the respondents in Adventist University of the Philippines. Convenient-purposive sampling technique was utilized to gather responses from the employees of the university. Two hundred fifty-three employees voluntarily answered the survey questionnaire which was sent to their institutional email addresses using Google forms. This study also determined the portion of the employees who were fully committed to a long-term career at the university and how many were inclined to refer the institution to others as a place of work. The employees had a high level of satisfaction in creating impact on others and receiving guidance from their supervisor. Moreover, they were highly satisfied with the opportunities and training provided for their career and personal development. They were highly content with teamwork across departments and in providing quality products and services. On the other hand, areas including retaining and attracting high-quality employees, home and work balance and salary and benefits of workers were suggested to be given significant attention. It should also be noted that the employees were very satisfied with the leadership of the university. They acknowledged the ability of the leaders to keep them informed and recognized the ability of the leaders to set the direction for the organization and serve as ethical role models to them. It was recommended that leaders still improve the way they care for the employees and the way they address external issues involving the university. Many of the employees exhibited commitment to a long-term career in the university, and most of them would likely recommend AUP as a place of work. Future research was recommended to identify the reasons why some employees were not sure if they would be willing to commit to a long-term work at the university and why they were not sure if they would recommend it as a place of work.

Keywords: *employee satisfaction, leadership satisfaction, commitment to work*

Employees' commitment to universities is a primary concern for the successful delivery of quality education. The function of human resources most importantly in educational institutions is more evident as they train future workers in every country. Thus, it is a must for a university to seek and retain competent, driven, and proactive employees who are devoted to educating students.

Job satisfaction is considered a vital part of the life cycle of employees. It refers to the extent of contentment employees feel with their job (BasuMallick, 2021). High job satisfaction among employees is beneficial for the organization. When the employees are satisfied, it leads to a lower turnover rate, loyal employees, better productivity, and increased profits (Herrity, 2021). Additionally, research tells that employees who are highly satisfied display higher energy, satisfying engagement, and are more passionate about their work (Al-Kassem & Marwaha, 2022).

Nowadays, job satisfaction and related variables are gaining important attention. Corresponding to a survey conducted by The Conference Board in 2019, job satisfaction climbs to its peak in over two decades. Apparently, about 54 percent of workers in the United States are satisfied with their employment. This shows a near-record increase of three percent in the survey's history. Additionally, employees signify job security is more visible nowadays, and they are more confident about their wages.

In the Philippines, a survey conducted by Willis Towers Watson in 2021 found out that 95% of employers in the country signified that enhancing employee satisfaction is a top priority in their organizations for the next three years. This is a significant increase from only 65% which indicated the same significance prior to the pandemic. Moreover, 89% of the respondents identified engagement to be the major key to achieving a positive employee experience. Productivity (88%), overall business performance (88%), and employee well-being (87%) were also substantially rated.

Determining the level of satisfaction among employees is equally important for all types of organizations (Al-Kassem & Marwaha, 2022). According to Herrity (2021), job satisfaction varies from one employee to another. Yet, he further stated that common factors such as engagement, motivation, compensation, acknowledgment and appreciation, life balance, opportunities, job security, and supervision cause job satisfaction.

Leadership is also a significant influence to consider when addressing issues that are related to the management of employees in a university (Muhdar, et al., 2022). The relationship between leaders and employees takes a significant role in accomplishing organizational outcomes and performance. The study by Laura et al. (2019) found that leadership satisfaction directly influences employee engagement, loyalty, and intention to stay. Thus, when job satisfaction is being considered, leadership satisfaction is also important to be examined.

Despite the importance of job satisfaction and the increasing interest in it, Al-Kassem & Marwaha (2022) stated that very few research works were conducted concerning the level of job satisfaction among academics in developing countries. Initially, this was one of the reasons why this study was conducted along with addressing various questions such as: What is the level of job satisfaction of the employees? What is the level of leadership satisfaction of the respondents? How many of the employees are fully committed to a long-term career at the university? How many are inclined to refer the university to others as a place of work?

Methodology

This institutional research is descriptive in nature. Convenient-purposive sampling technique was utilized to gather responses from the employees of the university. One hundred sixty-nine employees voluntarily answered the survey which was sent to their institutional email addresses using Google forms. The data gathering commenced on September 21, 2022, and ended on December 11, 2022.

Figures 1–4 show the distribution of the employees who responded. The distribution is in terms of the area or section of work, position, employment status, and length of service in the university.

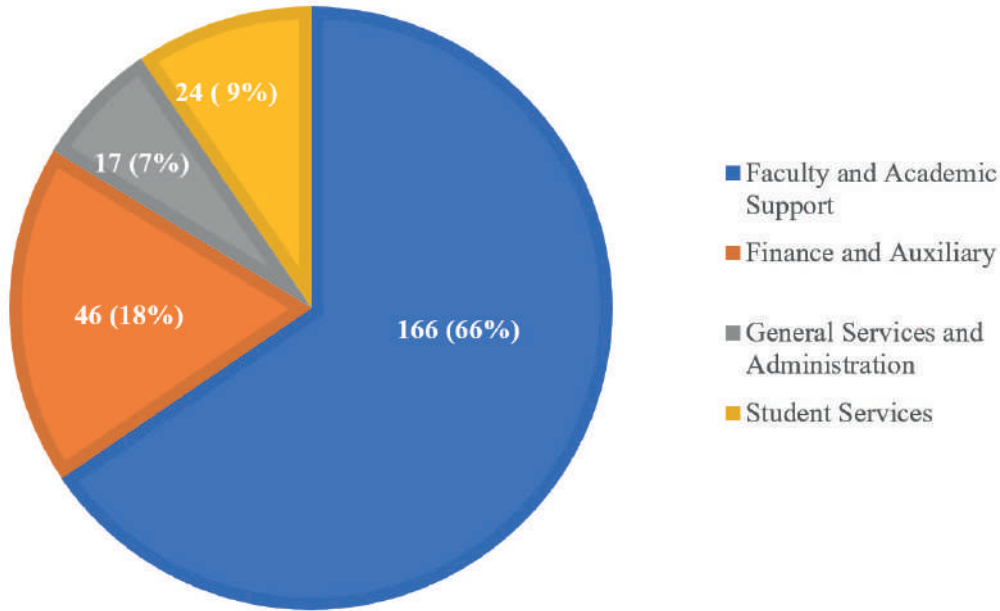


Figure 1. *Distribution of Respondents in Terms of Area or Section*

Figure 1 shows that among the 253 employees who responded to the survey, 66% or 166 of them were faculty and academic support staff. The next 18% or 46 employees belonged to the finance and auxiliary departments. Nine percent or 24 employees were working in the student services and the remaining 7% or 17 employees belonged to the general services and administration.

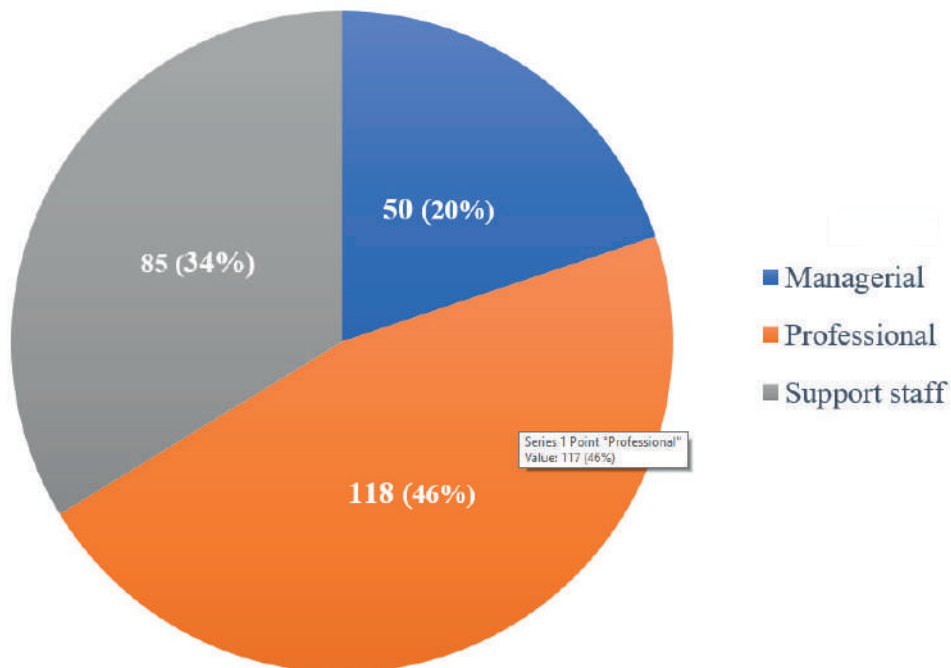


Figure 2. *Distribution of Respondents in Terms of Position*

Figure 2 presents the distribution of respondents in terms of position. It shows that among the 253 employees who responded to the survey, 46% or 118 of them were teaching professionals. The next 34% or 85 employees were support staff while the remaining 20% or 50 employees held managerial positions.

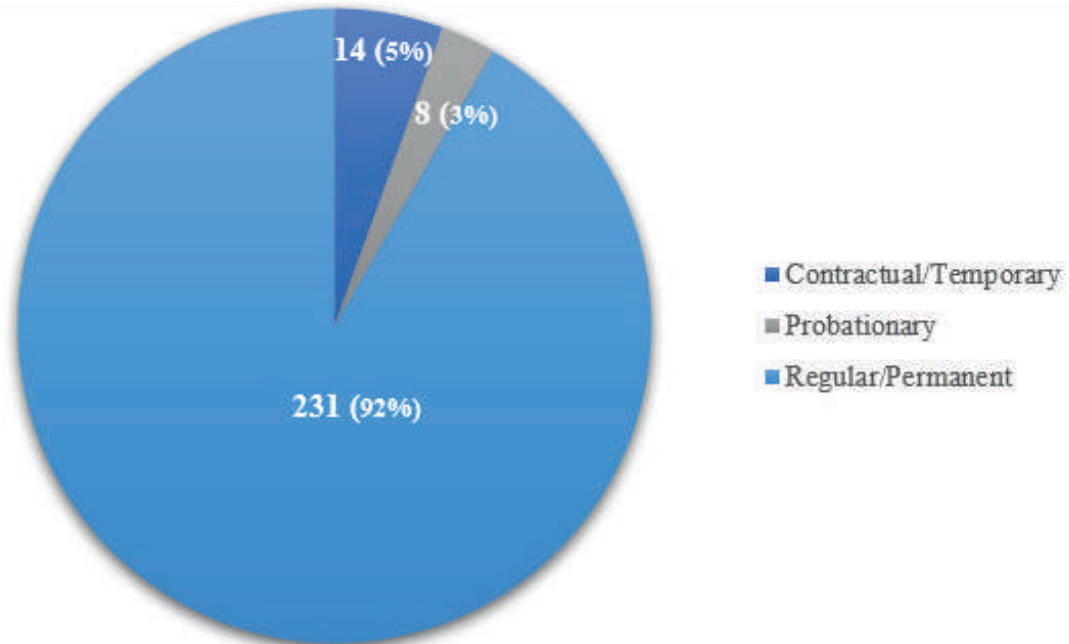


Figure 3. *Distribution of Respondents in Terms of Employment Status*

Figure 3 shows that among the 253 respondents, 92% or 231 of them were regular employees. The next 5% or 14 employees were contractual and the remaining 3% or 8 respondents were probationary employees.

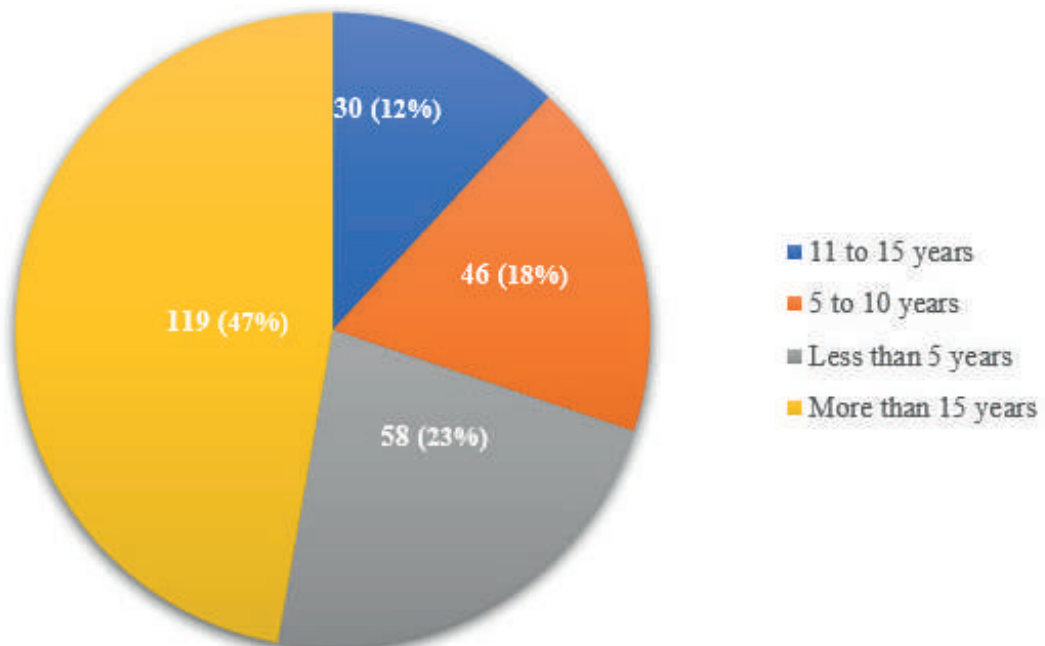


Figure 4. *Distribution of Respondents in Terms of Length of Service*

The pie graph in Figure 4 shows that among the 253 employees who responded, 47% or 119 of them were working for more than 15 years in the university. Twelve percent or 30 employees were working for 11 – 15 years. The next 18% or 46 employees were university workers for 5 – 10 years. The remaining 23% or 58 employees had less than five years of work experience in the university.

For data collection, a questionnaire with a five-point Likert scale was used which ranged from 5 (extremely satisfied) to 1 (very dissatisfied) to analyze the rating of the employees to the statements that are related to the performance of their job as well as the leadership of the university. The commitment of the employees was also classified as the following: *I am fully committed to a long-term career at AUP; I am somewhat committed to a long-term career at AUP; I am not sure how long I plan to stay; I would prefer not to remain at AUP.* Another five-point Likert scale which ranged from 5 (very likely) to 1 (very unlikely) was also used to determine the likelihood of the employees referring the university to others as a place of work.

The University Research Office facilitated the distribution and collection of responses. The invitation to participate and the link to the online form were sent to employees' institutional email addresses. Yet, the respondents' email addresses were not collected to secure the anonymity of the employees who participated.

Descriptive statistics, particularly mean and standard deviation, was utilized to analyze and interpret the rating of the employees to statements about their job, the leadership of the university, and the likelihood they would refer AUP to others as a place of work.

Results and Discussion

Tables and figures are used to give a summative presentation of the results of the analyses. Implications of the results are also discussed.

Job Satisfaction

Table 1 presents the rating given by the employees to describe the experiences that were related to their job satisfaction. The grand mean was 4.11 with a standard deviation of 0.52 which implies that the respondents were very satisfied with their job.

Table 1
Level of Job Satisfaction

Statement	Mean	SD	Verbal Interpretation
1. Availability of resources you need to do your job	4.19	0.78	Very Satisfied
2. Ability to have an impact on others	4.52	0.59	Extremely Satisfied
3. Receiving guidance from my supervisor	4.32	0.75	Very Satisfied
4. Training for improvement of performance	4.19	0.77	Very Satisfied
5. Opportunities for personal development	4.25	0.75	Very Satisfied
6. Opportunities for career advancement	4.13	0.78	Very Satisfied
7. Fairness in applying policies	3.92	0.84	Very Satisfied
8. Home and work balance	3.87	0.90	Very Satisfied
9. Attracting high quality employees	4.02	0.71	Very Satisfied
10. Retaining high quality employees	3.94	0.75	Very Satisfied
11. Teamwork across departments	4.21	0.71	Very Satisfied
12. Salary and benefits of workers	3.78	0.91	Very Satisfied
13. Providing quality products and services	4.10	0.74	Very Satisfied
Grand Mean	4.11	0.52	Very Satisfied

Scoring System: 1.00 – 1.50 (Very Dissatisfied); 1.51 – 2.50 (Dissatisfied); 2.51 – 3.50 (Satisfied); 3.51 – 4.50 (Very Satisfied); 4.51 – 5.00 (Extremely Satisfied)

The results in Table 1 show that the respondents were extremely satisfied with their ability to have an impact on others ($M = 4.52$, $SD = 0.59$). The rest of the indicators of job satisfaction were rated as good, which implies that the employees were very satisfied with their experiences

that were related to job satisfaction. Specifically, they were very satisfied in receiving guidance from their supervisors. They also agreed that there was teamwork across departments. They also recognized the training and opportunities for personal and career development. They agreed that resources were provided so that they could perform their job well and quality products and services could be rendered. They were very satisfied with the way the university attracted and retained high quality employees. The three lowest indicators, yet still very satisfied, dealt with fairness in applying policies, home and work balance and salary and benefits of workers.

Slavić and Avakumović (2018) concluded in their study that when the level of satisfaction among higher education employees is high, there is a higher possibility of performing better and providing more quality services to their students. They pointed out that factors such as training and development, job security, teamwork, productivity, and flexibility of the organization influence satisfaction and performance. Furthermore, compensation and benefits are the next factors affecting human resource practice.

The results of this study show that the university employees had very high satisfaction with the guidance received as well as the training and opportunities provided to them. On the other hand, though satisfaction was already high, improvement could still be done in providing salary and benefits for workers as well as allowing home and work balance.

Leadership Satisfaction

Table 2 presents the satisfaction rating of the employees in relation to the leadership of the university. The grand mean was 4.26 with a standard deviation of 0.63 which suggests that the employees were very satisfied with the leadership of the university.

Table 2
Level of Leadership Satisfaction

Statement	Mean	SD	Verbal Interpretation
1. Setting the organization's direction	4.38	0.60	Very Satisfied
2. Keeping you informed	4.37	0.72	Very Satisfied
3. Addressing external issues involving AUP	4.08	0.72	Very Satisfied
4. Showing care towards employees	4.20	0.80	Very Satisfied
5. Serving as ethical role models	4.28	0.74	Very Satisfied
Grand Mean	4.26	0.60	Very Satisfied

Scoring System: 1.00 – 1.50 (Very Dissatisfied); 1.51 – 2.50 (Dissatisfied); 2.51 – 3.50 (Satisfied); 3.51 – 4.50 (Very Satisfied); 4.51 – 5.00 (Extremely Satisfied)

Muhdar et al. (2022) indicate that there are many occurrences when leadership becomes a stumbling block to the rate of growth in advancing higher education. They defined leadership as the process of motivating employees in determining the goals of an organization. Research shows that leaders have a high consideration in serving others or their employees rather than being concerned with their status, and good leaders can develop the potential of their subordinates (Kadiyono et al., 2020; Haudi et al., 2020; Indrawan et al., 2020).

The results in Table 2 confirm that the leaders in the university possessed good leadership qualities. As an indication, the employees were very satisfied with how the leaders of the university set the organization's direction. Likewise, they were very satisfied with keeping the employees informed. Additionally, leaders served as ethical role models, and they showed care toward the employees. Similarly, employees were very satisfied with the way leaders addressed external issues that involved the university.

Commitment to a Long-Term Career at the University

Figure 5 presents the distribution of the responses in terms of the commitment of the employees to a long-term career at the university. It shows that most of the respondents were dedicated to work at the university for a long period of time.

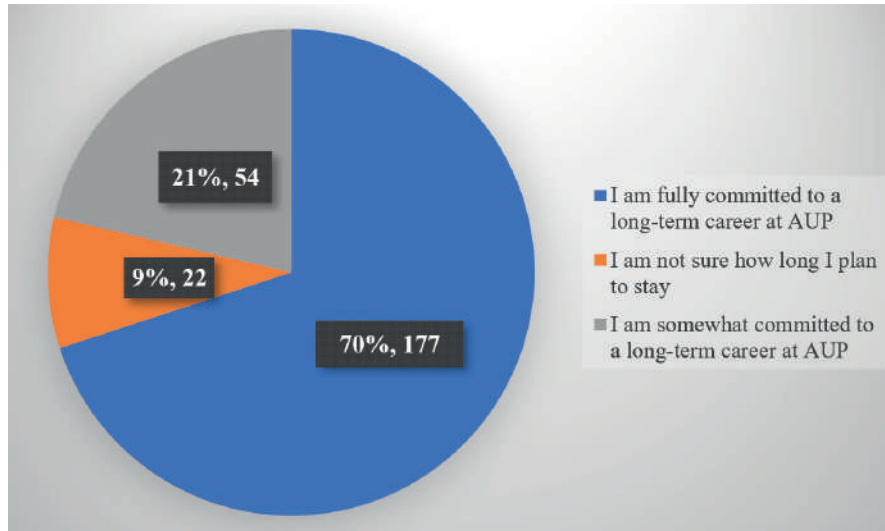


Figure 5. *Distribution in Terms of Commitment to a Long-Term Career in the University*

Organizations need employees who are psychologically connected to their work (van Rossenberg et al., 2018). The results presented in Figure 5 show that 70% or 177 respondents agreed that they were fully committed to a long-term career at AUP. The next 21% or 54 expressed that they were somewhat committed to a long-term career in the university. The remaining 9% or 22 employees were not sure how long they plan to stay working at the university. Nonetheless, employees could stay in the university to work for a long time.

Likelihood to Refer AUP to others as a Place of Work

Figure 6 presents the distribution of the responses in terms of the likelihood to refer AUP to others when there is a vacancy of work in the university. The result shows that most of the respondents were inclined to refer AUP to others as a place of work.

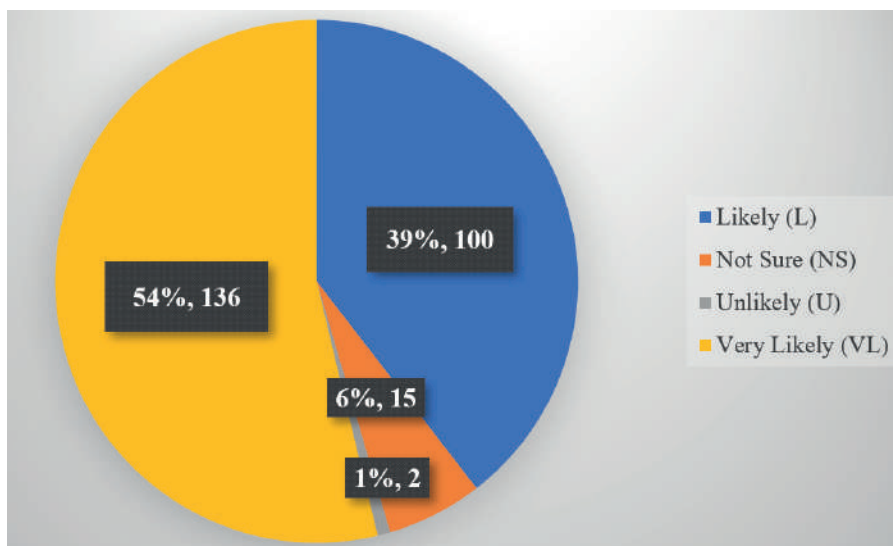


Figure 6. *Distribution in Terms of Likelihood to Refer AUP as a Place of Work*

The best source to hire human resources is employee referrals (Tyagi, 2019). Accordingly, employee referrals increase retention, improve the quality of hire, reduce the cost of hire, and greater the possibility to get specialized candidates.

The results presented in Figure 6 show that 54% or 136 respondents were very likely to recommend AUP as a place of work. The next 39% or 100 employees were likely to refer AUP to other people as a place of work. On the other hand, only about 6% or 15 employees were not sure if they would refer AUP as a good workplace to others. Less than 1% or two employees were unlikely to refer AUP to others as a place of work. Thus, the employees of the university were inclined to suggest working in the university to someone they know.

Conclusion and Recommendation

Based on the results of the analysis, it is concluded that the employees of the university had a high level of job satisfaction. Specifically, the results indicated that the employees felt that they could create an impact on others. Moreover, they received appropriate guidance from their supervisor. Additionally, they were highly satisfied with the opportunities and training provided for them to improve their performance and their career and personal development. Furthermore, results implied that the university employees were highly content with teamwork across departments and in providing quality products and services. Though the rating was very satisfactory, it is recommended that the following areas could be given significant attention: (1) attracting high-quality employees; (2) retaining high-quality employees; (3) home and work balance; and (4) salary and benefits of workers.

The results of the study also suggest that the employees were very satisfied with the leadership of the university. Most especially, the employees acknowledged the ability of the leaders to keep them informed. Additionally, they recognized the ability of the leaders to set the direction for the organization and serve as ethical role models to them. On the other hand, though the employees were very satisfied, it is deemed important that leaders improve the way they care for the employees and the way they address external issues involving the university.

Lastly, it is concluded that most of the employees exhibited commitment to a long-term career in the university, and most of them would likely recommend AUP as a place of work. Yet, it is recommended that leaders should identify the reasons why some of them were not sure if they would be willing to commit to a long-term work at the university and why they were not sure if they would recommend it as a place of work.

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LIVED EXPERIENCES OF CERTIFIED PUBLIC ACCOUNTANTS IN DIFFERENT SECTORS OF THE ACCOUNTING PROFESSION

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Abstract

Accounting offers vast opportunities. There are many accounting professionals engaged in more than one scope of practice. One may be providing public accounting services while having a part-time job in teaching. Another may be employed by a multi-national company or by a government agency while also working as a bookkeeping consultant to the public. This qualitative study was conducted to determine the following: (a) How do CPAs perceive accounting as a profession? (b) What are the challenges experienced by CPAs who have worked in different sectors of accountancy? and (c) How do the CPAs manage the challenges? Through this study, four Certified Public Accountants (CPAs) who have been in practice for more than 15 years and have worked in two or more sectors of accounting namely Public Sector, Commerce and Industry, Academe, and Government shared their experiences as a future reference for aspiring CPAs. The interview data collected via zoom shows different theme-based responses. The accountants perceived that accounting as a profession is very practical, very hard, noble, and important profession. Despite the difference in sectors, the accountants experienced high work pressure and faith challenging responsibility as challenges, but they were able to manage these challenges using their interpersonal and intrapersonal skills. The CPAs give recommendations to future CPAs regarding their preference for each accounting sector.

Keywords: *CPA, intrapersonal, interpersonal, accounting services and sectors*

A profession is described by certain characteristics, such as mastery of specific intellectual skills acquired through training and education, adherence to its respective common code of values and conduct established by its administering body, and acceptance of the duty to society as a whole. All of which are present in the practice of accounting. Accountancy has only recently been accepted on an equal level with other professions such as law and medicine. (Ireneo, 2018).

Even today, Certified Public Accountants (CPAs) are regarded as valuable professionals, people of integrity who care about their customers' success, and many CPAs are directing Fortune 500 firms, working on interesting entrepreneurial ventures, and building private practices that handle consulting assurance and tax work. Without a doubt, accounting is a full-fledged career, but it is not the only prospect- available to such CPAs because the practice of accounting encompasses, and is not limited to, the following: public practice, commerce and industry practice, academe practice, and government practice. (Ireneo, 2018).

According to Krakoff (2021), Starting a career in accounting is a wise decision. With industry expectations for significant growth, a high median compensation, and a high need for experienced accounting professionals, the timing has never been better to enter the field. However, after CPAs decide on the type of accounting career they want to pursue, they discover that the field is considerably wider and more diverse than they imagined, with chances to apply their abilities in a variety of sectors.

As a result, one of the most important professional decisions accountants make is choosing which general field of accounting to specialize in. This decision will determine an accountant's whole career path, including the types of clients they work with, the type of education and professional certification they will need, the amount of schooling they will complete, and the very nature of the work they perform. Several important factors that help determine which path is best for the individual, such as their personal proclivity to work, desire to work in the private or public sector, and interest in working independently or in a career spent working for an organization, all have a strong influence on the decision.

A Bachelor of Science in Accounting degree requires a high amount of job flexibility. Accounting knowledge can be used as a bridge to other career types, whether they are new to the field or seasoned professionals. It is also feasible to work in a standard accounting function for a period before pivoting into a different career based on their experiences and interests. Accounting majors can find work in almost any industry because accounting is the business language. Accounting can be a great way to satisfy future CPAs' professional goals, especially if they are interested in a variety of fields or the crossover of different careers. Whether they are hoping to enter a specific field, remain in the same industry in a new professional capacity, or explore a few different sectors to see which is liked best.

Under Republic Act 9298 also known as the "Philippine Accountancy Act of 2004," the practice of accounting is sub-classified into four sectors. The practice of Public Accountancy, practice in Commerce and Industry, practice in Education or Academe, and practice in the Government.

The first sector involves the rendering of an audit or accounting-related services to more than one client on a fee basis. Accountants are working in firms or they work individually to provide audit and attestation, tax planning and preparation, and advisory services to their clients. They serve clients on a project or contractual basis. The second sector is also called 'private accounting' which refers to employment in the private sector in a position that involves decision making requiring professional knowledge in the science of accounting and such position requires that the holder thereof must be a certified public accountant. The third sector indicates employment in an educational institution that involves teaching accounting, auditing, management advisory services, finance, business law, taxation, and other related subjects. This area is made up of accountants who are into teaching, research, and training & development. The fourth sector is the employment or appointment to a position in an accounting professional group in the government or a government-owned and/or controlled corporation, including those performing proprietary functions, where

decision making requires professional knowledge in the science of accounting, or where civil service eligibility as a certified public accountant is a prerequisite. (Millan, 2020)

As the profession evolves and progresses, it is not uncommon for people to work in more than one field. Many accounting experts practice in more than one area. One may provide public accounting services while also working part-time as a teacher. Another example is someone who works for a multinational corporation or a government agency while also consulting with the general public on bookkeeping. As a result, the question is, where do future CPAs want to be in ten or twenty years, and what will it take to get there?

Over the last few decades, there has been a growing problem in various sections of the accounting profession. Despite continued efforts by professional accounting groups and academic studies, there is a considerable disparity in the accounting profession's response to developments. The growing digital and smart technology, new forms of regulation, and globalization of reporting and disclosure standards will cause significant changes in the accounting profession's various areas. According to Muhammad Islam (2017), The Association of Chartered Certified Accountants (ACCA) investigated these significant developments, which are predicted to occur by 2025. According to the ACCA, knowledge of digital technology is the most important competency area where professional accountants have skill shortages. Future researchers should spearhead corporate cooperation in order to uncover strategic answers to changes in digital technology, new forms of regulation, and the continuous globalization of standards.

It is generally claimed that one of the most important professional decisions accountants make is picking which general field of accounting to specialize in. This is because this decision will determine an accountant's entire career path, including the types of clients they work with, the type of education and professional certification they will require, the level of education they will complete, and the very nature of the work they perform. (AccountingEdu.org, 2023)

Statement of the Problem

This study provides for future reference to help newly passed Certified Public Accountants (CPA) best navigate their career.

Specifically, the study answered the following questions:

1. How do CPAs perceive accounting as a profession?
2. What are the challenges experienced by CPAs who have worked in different sectors of accountancy?
3. How do the CPAs manage the different challenges they have encountered?
4. What advice and recommendations can these CPAs give to future ones regarding their preference for each accounting sector?

This study focuses on providing general insights for future CPAs from the lived experiences of certified public accountants which would help them decide on which accounting sector (Public Practice, Industry, Academe, and Government) would they want to be employed first.

The ideas offered may be utilized as a guide in gaining understanding of what the various industries have to offer, allowing them to maximize their efforts and time as they begin their journey as accounting professionals. The findings may also allow them to examine and evaluate their own readiness, awareness, and preparedness as they enter the accounting profession.

In terms of the topic at hand, there is still a considerable vacuum in the research and literature available to students, particularly recently passed CPAs. As a result of the in-depth experience that the researchers were able to get, the information gathered and presented in this study may be utilized as a future reference to help new and prospective CPAs make better judgments about what industry they want to work in as they begin their careers as accountants. This study will also act as a cross-reference for them, providing them with a clearer background or an overview of the aforementioned study, which they may then develop further.

The study's depicted condition will aid academic administrators, college curriculum writers, and accounting program developers in obtaining and matter. This will assist them grow and strengthen the students' abilities and skills, allowing them to have a solid foundation and vision as they plan their future careers.

Related Literature on the following variables were significant to pursue this study. These variables are perceptions on accounting profession, contributing factors on career choice of students, challenges experienced by CPAs in the academic, commerce and industry, public, sector, government, and management of the experienced challenges. The study is anchored on Kohlberg's Theory of Cognitive Development, Kolb's Experiential Learning Theory, shown in figures 1 and 2, and the Theory of planned Behavior by Ajein and Fishbein.

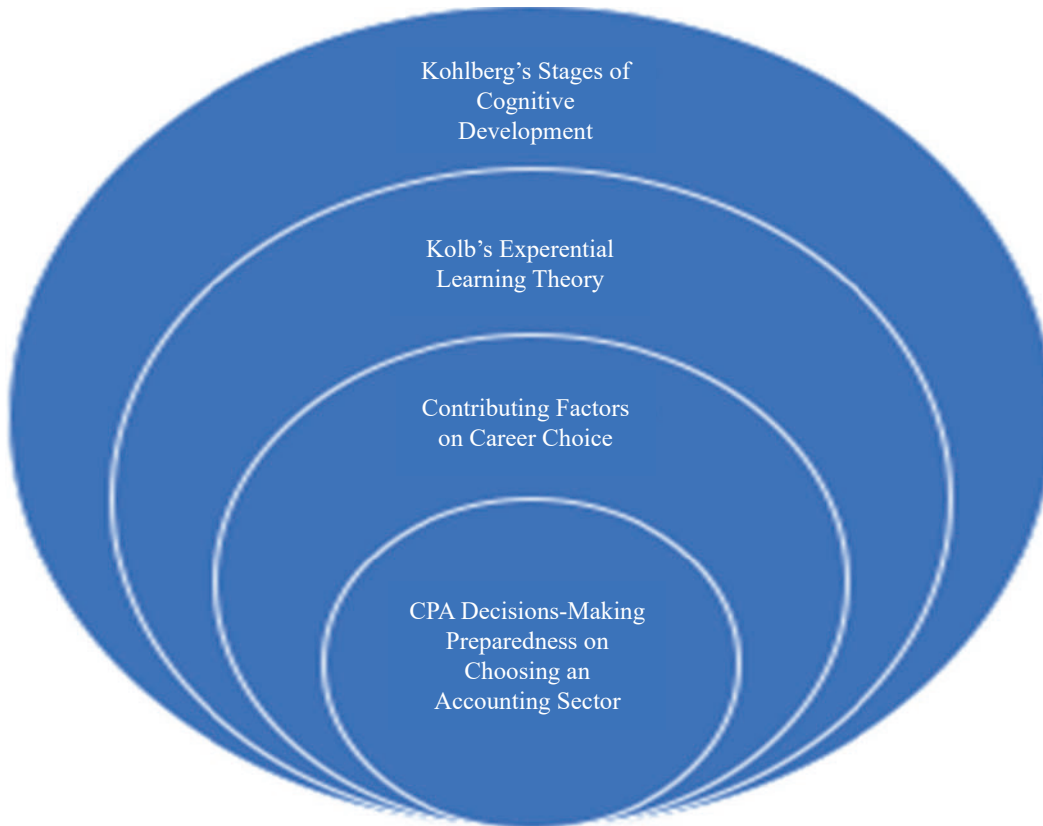


Figure 1. *A theoretical framework for CPA's decision-making preparedness in choosing an accounting sector.*

Kolb's Experiential Learning Theory which primarily presents that accounting students can develop understanding via experiences and comprehension of lived experiences from others, in line with Kolb's experiential theories of learning some research also suggest that structures of knowledge and information are learnt, preserved in long-term memory have an greater impact on a person's capacity improve their career decision-making (Fleming et al., 2009). Experiential Learning Theory or "ELT" is based on the "experiences of other people which are then combined to generate different and distinct viewpoints which can prove vital in their professional decision-making process particularly in choosing which industry to be employed in. The researchers also chose this framework for the reason that experiential learning, according to Kolb et al. (2000), are information acquired from real experience plus abstract conception developed through observation and experimentation of the individual. This then helps students acquire and utilise new perspectives and concepts by emphasising the importance of experiences in learning and is thus to CPAs' stance readiness in selecting a sector in the accounting profession.

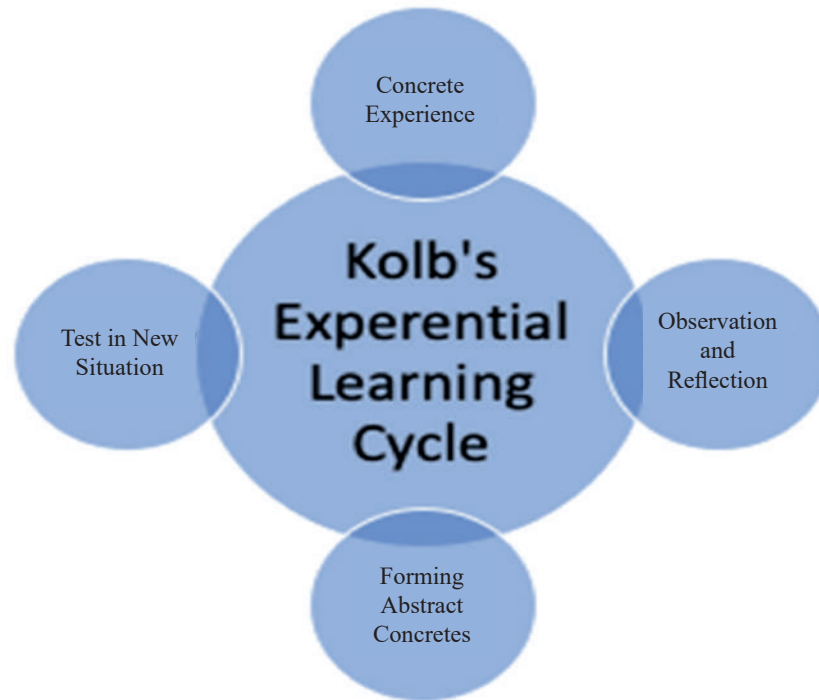


Figure 2. *Kolb's experiential learning cycle, adapted from *Experiential learning: Experience as the source of learning and development*, by David A. Kolb, 2005.*

Methods

Research Design

Qualitative by form, the purpose of this study was to attract attention to the perspectives and views of Certified Public Accountants (CPAs) in various areas of the accounting profession. The participants' emotional responses and perceptions were more important than more quantitative characteristics in this study, which used a phenomenological research approach. This technique was chosen since the meaning derived from an individual's experience might be interpreted in a variety of ways (Creswell, 2018).

This study intends to provide a viewpoint of experiences in different sectors of the accounting profession from CPAs through a phenomenological examination of the lived experiences of Certified Public Accountants (CPAs) in diverse sectors of the accounting profession. The participants' emotional responses and perceptions were more important than more quantitative characteristics in this study, which used a phenomenological research approach. Participants will be able to recall their experiences and construct meaning through discussion as a result of in-depth exchanges between researchers and participants (Creswell, 2018).

Qualitative research is an analysis that provides a depth of understanding for individuals who are interested in the happenings of a specific environment and time. It does not forecast what will happen in the future (Devriendt et al., 2021). This inquiry and discovery approach was created to produce a deeply detailed study that incorporates the lived experiences of CPAs working in various accounting areas. The goal of this study was to provide a resource for accounting students who are unsure of their next steps after passing the boards.

Participants of the Study

The participants in this study are Certified Public Accountants (CPAs) who work in various areas of the accounting profession. The researchers chose four potential volunteers from each sector of the accounting profession particularly in public accounting, commerce and industry, education/academy, and government accounting.

For reaching an appropriate sample size in qualitative investigations, Blaikie (2020) advocated the notion of data saturation and adds that establishing an optimal sample size is ultimately a question of judgment. Based on the repetition of the data and themes, as well as the lack of new information, the researcher believes that data saturation will be reached with a sample of four people.

The criteria for participants is to have a “meaningful experience.” A meaningful experience is gained in accordance with Section 28 of RA No. 9298 as presented below, and is regarded as satisfactory compliance.

- a. commerce and industry and shall include significant involvement in general accounting, budgeting, tax administration, internal auditing, liaison with external auditors, representing his/her employer before government agencies on tax and matters related to accounting or any other related functions; or
- b. academe/education and shall include teaching for at least three (3) trimesters or two (2) semesters subjects in either financial accounting, business law, and tax, auditing problems, auditing theory, financial management, and management services. Provided, that the accumulated teaching experience on these subjects shall not be less than three (3) school years; or
- c. government and shall include significant involvement in general accounting, budgeting, tax administration, internal auditing, liaison with the Commission on Audit or any other related functions; and
- d. public practice and shall include at least one year as an audit assistant and at least two years as an auditor in charge of audit engagement covering full audit functions of significant clients.

In addition to the criteria “meaningful experience”, each respondent must have worked as a CPA for at least 15 years and have experience working in different sectors of accounting.

Instrumentation

All interviews conducted in the month of July 2021 were done via zoom in compliance with the health protocols implemented because of the pandemic and were recorded and transcribed within the week after each interview. To further verify, the inputs gathered from each respondent the researchers cross-referenced it with other works of literature and consulted each participant allowing them to review and modify their comments and inputs.

The research methodology for this study was qualitative by form and since the purpose of this study was to obtain insights from the lived experiences of CPAs employed in different sectors of the accounting, the researchers employed in-depth interviews with the respondents as a means of collecting data.

The interview protocol was prepared to address the objectives of the study. Semi-structured, in-depth, online interviews were conducted between June and July of 2021. Interview questions were prepared and subjected for validation to see if the questions were directed to the main objective of this study. The interview was conducted between 30 min to one hour and was recorded with the permission of the respondents.

The demographic information of the participants was obtained at the start of the interview in terms of sex, age, and other basic profiling question as presented below.

Table 1
Basic Demographic Profile

Participants	Sex	Age	Years in specified sectors
1. Public Practice	Male	56	26 years
2. Commerce and industry	Male	49	16 years
3. Acade4me	Male	38	3 years
4. Government	Female	54	19 years

To ensure that the participants' responses during the interview were correctly interpreted, the researchers first cross-checked each transcription and inputs then consulted each respondent regarding the transcribed interview results that allow them to verify and modify the results of their responses. Lastly, to further enhance the credibility of the data gathered and its findings the researcher used literature as support to each respondent's inputs as means of data triangulation (Farquhar et al., 2020).

The interview was designed as a semi-structured or half-structured interview as it provides more opportunities for details to emerge and to prompt an interactive dialogue experience. By asking open-ended questions, the participants were able to determine the content and flow of the interview (Boeiji, 2013), and allowed the researchers to glean a richer data output using prompts and probing questions.

Data Gathering Procedures

The data collection for this study was achieved by interviewing four CPA respondents who have experienced working as a CPA for at least 15 years and were exposed to various sectors of accounting. A copy of the questions was prepared by the researchers beforehand containing open-ended questions to address the main problem of this. Study. The answers that the researchers received from each respondent were kept exact and accurate to best navigate the result of the said interviews.

A copy of the interview questions was sent to each respondent ahead of time to allow them to prepare and enhance the credibility of their answers. Before each interview, the respondents were briefed through online meetings conducted by the researchers via messenger or zoom depending on their preference. The respondents were then informed by the researchers that the entire duration of the interview was recorded for transcription and analysis only.

During the briefing, the researchers explained the purpose and the terms of the study and addressed each respondent's inquiries. The respondents were asked to read through the ICF to ensure that they fully understood all the terms and conditions of the study. After all their questions and concerns were clarified, each participant was then asked to sign the ICF following their verbal consent to participate in the study and agreement to all its entailed terms.

The participants were also asked to complete the Participant Profile form but were not mandated to give their names if they so choose, this form provided the researchers with some basic background information about each participant, such as their sex, age and how long they have been in practice as a CPA. Last, the researchers also notified the respondents that they were free to withdraw from the study at any time without penalty if they so desired.

From the briefing until the Interview, the respondents were expected to be accommodating, transparent, and very knowledgeable about the given topic, whereas it was also expected that a few of them would seem guarded when disclosing the benefits that their work in that industry offered them. In such circumstances, the researchers conversely agreed not to press any further to those questions rather proceed to the next questions. Other than the problems mentioned, the researchers also anticipated encountering delays in receiving the respondents' answers due to their work schedules, and problems caused by the slow or unstable internet connection of the respondents and the researchers alike. Nonetheless, the interview questionnaires were completed and the researchers were able to gather important information.

When the interview started, the researchers took turns in transcribing and analysing the given answers by each respondent and each transcription was checked by other researchers belonging to the same group. The transcribed records of the interview were strictly kept by the researchers in conformity with research ethics and their privacy agreement with the respondents.

A pilot study was undertaken to improve the relevance of the acquired data by further modifying the questions offered in the interview questions. The pilot study was also undertaken to ensure that each question was understandable and to acquaint the researchers with how to answer each question from the respondents.

During the pilot study, one CPA professional who fits the criteria aforementioned was approached via messenger. Upon gaining her consent the researchers conducted the pilot study based on the participant's availability. Prior to the release of the set of questions, the participant was briefed about the purpose of the study, including all the terms and conditions involved and presented in the ICF via messenger. After reading through all the ICF, any inquiries raised by the participants were answered by the researchers. When the participant understood the terms presented by the researchers, they were asked to sign the ICF and fill out the participant profile form.

After the pilot study was conducted, the researchers asked open-ended questions to allow the participant to fully express her ideas and suggestions. Of which the participant expressed that she fully understood the questions being asked and suggested no changes to be made.

Trustworthiness of the Study

As suggested by Yeong, et al. (2018) To provide a valid and effective qualitative study, the researchers utilized three strategies to promote and enhance the validity of the study.

First, the researchers met with their adviser and experienced dissertation panel members numerous times, which resulted in useful comments and conversations that were recorded and gathered for later consideration.

Second, to check for inconsistencies and to provide a platform for further clarification, members were checked. According to Moser and Korstiens (2017), this procedure allows researchers to evaluate their subjectivity and ensure the validity of their findings. The data were then transcribed and interpreted by the researchers and summarized results were made available to the participants allowing them to check for accuracy and resonance with their experiences.

Lastly, for readers to understand the participants' real experiences, findings were provided through deep, detailed descriptions and verbatim words of the participants. The researchers hoped to give as close to accurate as possible a depiction of the lived experiences of Certified Public Accountants from different sectors of accounting. All ethical considerations were observed and the informed consent form (ICF) was signed by all participants.

Analysis of Data

To analyse the interview data gathered in this study the Interpretative Phenomenological Analysis or simply IPA was used. IPA, according to Mills and Lomas (2021), is a methodical way to understand a subject's experiences with a major life event experience or situation. IPA is subject-focused and frequently uses a small sample size. This means that, while the researchers code in the typical manner, it is crucial not to lose the depth of experience or the meaning of the analysis, and that the researchers reflect their subjective biases in all research, which was especially significant in this sort of study. Essentially, researchers wanted to pursue making sense of the participants' experiences in starting their careers as CPAs. To expound more on the analysis process used in the study, the researchers broke down the IPA into more detailed steps namely:

1. Transcription of the data gathered through online interviews
2. Read through the answers of each respondent.
3. Analyzation and transformation of the respondent's answers to responses.
4. Organize each related response into themes.
5. Cross-checked each code and theme set initially.
6. Formulate a narrative account describing the result found from the collected data.

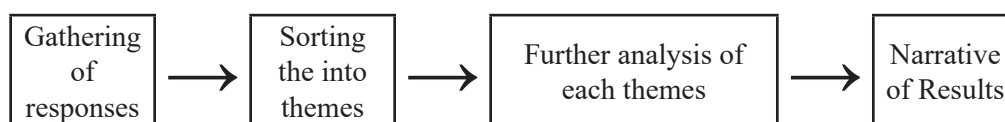


Figure 3. *Interpretative Phenomenological Analysis (IPA).*

The analysis process began by transcribing the results of each interview returned by each respondent. Each transcription done by each respondent was cross-checked by another researcher for any mistakes before moving to the next steps. After transcribing, the researchers identified the emerging codes from the result of the interview and translated them into codes. Which were then grouped into different categories wherein any answers that yield the same were grouped. Each category was given a name that best expresses the codes which they represent. The process aforementioned identified the codes which strongly captured the researchers' attention with the given topic study. Afterward, the researcher developed different findings for each group of codes and was then cross-checked by other researchers to verify whether the findings were appropriate and accurate to what the study is all about. The last step was done by the researchers to formulate a narrative based on the findings of the analysis and present its relevance to the present study.

Results and Discussion

Perceptions on Accounting Profession

To answer the first research questions four themes emerged from the acquired data. These theme-based responses identified from the results of this study include the following: Practical, hard, noble, important profession and are presented in table 1 as shown below:

Table 1
Perceptions of Accountancy Profession

Research Question	Theme based response	Responses
1. How do Certified Public Accountants Perceive Accountancy as a profession?	Very practical and very hard profession	"I perceive it as a very practical choice of profession because of the need for accountants in every business but it is very hard due to the updates. There are a lot of standards from international standards which we copied because of company scandals in the USA and Europe."
	Noble profession	Participant 1-Public practice "Accountants play a noble role in making sure that the books are accurate and in terms of integrity, we have to put our foot down against wrongdoings" Participant 2 - Commerce and industry
	Very important profession	"it is a noble profession because it greatly depends on the integrity of an individual" Participant 3 - Academe "It's a profession that greatly helps any corporation or individual in preparing the Financial Statements to be used in decision making." Participant 4 - Government

Practical and Hard profession.

Participant 1 perceived accountancy as a very practical profession where you can easily find job opportunities because every company needs an accountant to run a business. He sees it as a practical choice but now, he described it as a very difficult profession because you have to be updated from time to time. "There are a lot of standards from international standards which we copied because of companies' scandals and collapsing in the USA and Europe and I find it already ridiculous and because of that I stopped being part of the public practice."

In the research findings of Welbeck et al. (2019), they also include the same inputs gathered from participant 1, which greatly emphasize the practicality of the course in terms of why accounting students chose the program and the hardship that comes with it.

Noble Profession.

According to participant 2, “It’s a very noble profession, but it has to be something that you really love.” He further notes that most of the people in the real world stay at the office working for hours and one of those is the accountants. “It’s because we implement controls across the organization. Accountants play a very important role in making sure that the books are accurate and in terms of integrity, we have to put our foot down against wrongdoings. They are very much existent so you have to have your principles as well to back up your passion for accounting.”

Participant 3 also perceives accountancy as a profession that is a “noble profession” because it greatly depends on the integrity of an individual. He further supports his statement by saying that he believes accountancy is a public trust. In addition, he stated that “As a CPA, we are responsible to protect the interest of the public by helping them understand their finances better and encouraging them to be compliant citizens by paying their taxes right.”

Accountants, according to Desai (2017), are esteemed business experts who are known as one of the noblest professions that protects the public interest.

Important profession

When asked about her perception of the accountancy profession. Participant 4 quickly and knowledgeably answered it by emphasizing the function and importance of accounting in every business. According to her “It’s a profession that substantially assists any company or individual in preparing financial statements for decision-making purposes.”

Accounting and accounting professions, according to Reid et al. (2021), play an important role in economic development. It has a beneficial role in the integrity of decisions as well as the effectiveness of development plans; this role is derived from the availability of information essential for planning, implementing, and monitoring these plans. The failure of such programs is sometimes ascribed to the lack of a thorough assessment of the accounting function in subsequent economic growth plans.

Based on the themes gathered, it can be observed that in response to the first research question all of the respondents answered it depending on how they interpret accounting after experiencing it. Participants 2 and 3 describe it as a “noble profession”, while Participant 1 perceives it as a “practical yet difficult profession” and Participant 4 perceives it as a very important profession, which then provided the researchers with enough evidence to develop the themes as presented above.

Challenges of Being an Accountant

In response to the second research question, two themes emerged from the acquired data. These theme-based responses identified from the results of this study are the following: High work pressure and Faith challenging responsibilities as shown below in table 2:

Table 2

Challenges of being an accountant

Research Question	Theme based response	Responses
2. What were the challenges experienced by Certified Public Accountants?	High work pressure	<p>“There’s so much pressure especially when working with different clients with the same deadlines” Participant 1 - Public Practice</p> <p>“There will always be resistance to your ideas regardless of your approach” Participant 2 - Commerce and Industry</p>

{table continues on the next page}

	<p>“Heavy workload during the busy season.” Participant 2 - Commerce and Industry</p> <p>“the auditor is always put in a bad light even when the recommendations are valid there will still be reasons why they would reject and challenge those recommendations” Participant 2 - Commerce and Industry</p> <p>“It needs a lot of understanding and patience because every company has its own culture and you cannot just go there and then you assert what you already know.” Participant 3 - Academe</p> <p>“Accounting is challenging because it’s more on analysis.” Participant 4 - Government</p>
Faith Challenging responsibility	<p>“Whenever I transfer from one company to another, the same challenge goes on about the Sabbath observance” Participant 3 - Academe</p> <p>“if not all, most the private sector has work schedule on Saturday” Participant 4 - Government</p> <p>“Having a strong faith is a must in our profession, corruption is everywhere, and we should know what’s right from wrong.” Participant 4 - Government</p>

High work pressure

According to participant 1, he said “Working in public practice puts you in high pressure” especially when he was in SGV working with several companies with the same deadlines. He further notes that starting as the staff doesn’t have that much pressure because you are only going to work for limited clients but when he already attained the managing position where the pressure is high. Juggling work between clients, efficiently managing the group’s budget while providing service based on the fees or billings, are those he had to deal with during his employment in public practice.

As for participant 2, he stated that “there will always be pushbacks, resistance to your ideas, most especially when you’re in audit regardless of your approach. It’s probably conceptual or for you at this point.” He further claimed that in dealing with auditees, the auditor is always put in a bad light even when the recommendations are valid there will still be reasons why they would reject and challenge those recommendations, and according to him, that’s by far the biggest challenge he experienced.

The participant also experienced handling bank handling loan operations, multinational oil company particularly intercompany transactions where he was challenged to deal with “huge” journal accounts of shared services. He further notes that It’s never easy being in that position. He also handled compliance as well, management of risks and evaluating company performance, and implementing controls across the organization where he again was challenged to make vital recommendations.

In the audit, according to participant 2, “You have to love it because it is not an easy profession. You’ll be working long days, especially during tax filing season or during peak season. Given the workload, you have to accomplish everything in a limited period of time while being able to please your clients as always as the saying goes and you have to be able to make sure that they realize their value and lastly you should know how to add value to the team.”

As for participant 3, he mentioned that being employed in an institution is very challenging because the culture is very different when you’re working outside the Adventist denomination and that also one of its challenges is that there are lots of cultures that he needs to be familiar with, there’s also the challenge on how to put into a classroom setting what you learned after working outside because it’s a different field. Imagine, you were working hands-on in different companies and then how to teach it very challenging, so you need to be equipped with so many tools in order to share the knowledge that you gained from the experience with the students because teaching is not only based on the book but it’s important also to share what happened or what’s happening in real scenarios.

Lastly, according to participant 4, she said: “Accounting is challenging because it’s more on analysis.” She also emphasized the challenges of integrity as an accountant working at the government particularly at the BIR and her lack of experience when she entered the said sector.

A study conducted by Yustina et al. (2017) greatly supports the participant’s claim by having proved that an auditor’s job is a very tedious profession especially if it’s driven by a high organizational commitment that has a direct influence on each auditor’s stress levels which led to the so-called “auditors’ burnout” or higher turnovers.

Faith Challenging responsibility

According to participant 3, he stated that the most challenging part of his career as a CPA was to preserve the Sabbath day. According to him as a newly baptized Adventist, it was very challenging because whenever the busy season comes, they were required to work long hours from January until April, there is also the so-called required management training or work requirements which falls on the Sabbath, and in order to exercise his faith, he always makes sure to go home early every Friday afternoon to preserve the Sabbath. The same is true for his next employment until he was able to be employed in an Adventist institution.

The same was true for participant 4, which according to her, during her journey as a CPA, if not all, most of the private sectors had Saturday work which became one of her biggest challenges as a Sabbath keeper but she chose to stand firmly on her faith and decided to resign. Fortunately, she was employed in BIR where Sabbath-keeping wasn’t an issue. There she handled tax assessment and compliance which for her is again a very faith-challenging job.

Based on the respondent’s interview answers, each participant had a unique set of experiences and obstacles. Despite these differences, the researchers were able to connect each response and come up with the themes “High work pressure and Faith challenging responsibilities” which emphasized their similarities with the challenges mentioned by each respondent.

This religious Sabbath observance is greatly supported by Beeke and Smalley (2019), wherein he further emphasized that keeping the sabbath is a way to delight God. He further notes that as a Christian it is very important to keep our spiritual health and our relationship to God in check because according to him it is the very essence of what Christians are ought to do and that God should always be our foremost priority.

As seen in table 1, participant 1 experienced a lot of pressure when working as an accountant in an auditing firm of which he had to deal with various clients with the same deadlines and even had to carry bigger responsibilities especially when he got promoted. This is true with regards to the answer of participant 2 wherein he expressly stated that “auditors are always put in the bad light” regardless of your approach they will still resist your ideas and even if your recommendations are valid, they will still have reasons to reject it. Also, participant 2 added that being a CPA there will be

times you have to deal with “huge” accounting journals especially when he handled intercompany transactions of a multinational firm. He also experienced working for long hours for a limited amount of time, especially during busy seasons.

Unlike the previous respondents, participant 3 said that the challenges that he had experienced in his journey as a CPA were the Sabbath observance. He further mentioned that in his previous years of employment before working in the seventh-day Adventist institution he had encountered a lot of challenges like training being held on the sabbath and other responsibilities falling on a Saturday which he chose to be resilient. The next challenge he mentioned was getting familiar with a variety of cultures which for him is very important to get closer with his colleagues and students. Lastly, as for participant 4, she also mentioned experiencing the same Sabbath observance issue and was also resilient about it leading her to work in the government where she was able to practice her profession without any worries about keeping the sabbath but was exposed to integrity-challenging experiences.

How Participants Manage the Challenges Experienced

In response to the third research question, two themes emerged from the acquired data. These theme-based responses identified from the results of this study are as follows: Interpersonal and Intrapersonal Skills and are shown below in table 3:

Table 3
Challenge Management of the Participant

Research Question	Theme based response	Responses
3. How were they able to manage these challenges?	Interpersonal Skills	“Communication is important as well. Communication with your boss and clients. In everything you do, there should be no assumption.” Participant 1 - Public Practice
	Intrapersonal Skills	<p>“Sometimes working hard doesn’t equate to working smart.” Participant 1 - Public Practice</p> <p>“Acknowledging when you are wrong, where you need improvement and working on it right at the end of the day are important” Participant 2 - Commerce and Industry</p> <p>“It’s part of life you just have to be strong and not give up and then continue to learn, continue to improve.” Participant 2 - Commerce and Industry</p> <p>“In audit, you don’t just simply issue recommendations or findings, they have to be based on facts” Participant 2 - Commerce and Industry</p> <p>“It needs a lot of prayers especially whenever the choice was between obeying them or obeying God” Participant 3 - Academe</p> <p>“Every company has its own culture and you cannot just go there and then you assert to what you already know” Participant 3 - Academe</p> <p>“I held onto the promises of God, If God is with me, who can be against me” Participant 4 - Government</p> <p>“We have to put our foot down against wrongdoings” Participant 2 - Commerce and Industry</p>

Interpersonal Skills

According to Participant 1, “in everything you do there should be no assumption” having good communication with clients and supervisors is very vital especially as an accountant.

This was also true for the study of babington (2022), where they further elaborated the importance of having great communication skills for accounting professionals seeking career success. They also emphasized the importance of interpersonal communication skills as opposed to indirect communication methods to the accounting profession, the development of interpersonal communication skills at each career advancement level, and the development of programs to help foster these skills which are proved as very crucial in the accounting profession.

Intrapersonal Skills

According to participant 1 working smart and hard is very vital to manage these challenges. Back then the respondent mentioned that he used to stay in the office physically for long hours because of the workload. He also states “Sometimes working hard does not equate to working smart.” But in order to meet those expectations you have to work hard but do it smartly.

According to participant 2, acknowledging when you are wrong, where you need improvement, and working on it right at the end of the day is important in dealing with the challenges in front of you, and that it should not stop you from pursuing what you need to do. He also emphasized the importance of learning by giving a new abbreviation to the word FAIL which for him means “First Attempt In Learning” and that these failures would be stepping stones in improving oneself. Lastly, respondent 1 states that in audit you don’t just simply issue recommendations or findings, they have to be based on facts or simply doing things the right way and that regardless of challenges, if you love what you’re doing you will continue to wake up the following day and face the challenges. “It’s part of life you just have to be strong and not give up and then continue to learn, continue to improve.”

In dealing with these challenges, participant 3 emphasized the need for a lot of prayer and faith because being firm with what you believe in especially in your spiritual beliefs is the very challenge in most companies, especially whenever the choice was between obeying them or obeying God. He further quotes the saying of Peter in Acts, which stated that “we ought to obey God rather than man”. As for the culture, he said it needed a lot of understanding and patience for him because every company has its own culture and you cannot just go there and then you assert what you already know. It’s important to be flexible and understanding in order to learn and adapt to the culture of every organization.

As for the academe, although the salaries and compensation rate is not that high compared to other sectors, in return, the satisfaction of seeing your students understand the lesson is priceless. What participant 3 did is that he just accepted it as it is and said that it will all pass away and just moved on. Praying to God to help him where to go is one way to cope with all those challenges he faced.

Lastly, according to participant 4, she enthusiastically answered: “I held onto the promises of God, If God is with me, who can be against me” this verse is instilled in her mind, because according to her when you enter the government sector you will face challenges that will test your faith “corruption is everywhere, we should know what’s right from wrong.” She further quoted, “The world’s biggest need is for men, men who will not be bought or sold; men who are true and honest in their hearts; men who are not afraid to call sin by its proper name; men whose conscience is as loyal to duty as the needle to the pole; men who will stand for the right even if the skies fall.”

Goldberg, et al. (2020) explicitly mentioned cultural diversity is usually regarded to present a choice between task coordination and creative problem solving, with diversity emerging mostly from individual cultural variances, according to the author. They proposed, on the other hand, that variety can exist among individuals when they hold various cultural views about the organization. Interpersonal and intrapersonal cultural heterogeneity are terms we use to describe these diverse types of cultural heterogeneity.

In response to research question number 3, the researchers focused on the respondents' answers particularly in how they handle those challenges that they have experienced in their journey as a CPA. From here the researchers were able to come up with the themes "Interpersonal and Intrapersonal Skills" which shows the commonalities of each code gathered from the respondents, where they cited traits that proved to be vital when they dealt with challenges. According to participant 1, he didn't just work hard but he worked smart when faced with the pressures assigned to him. He even mentioned staying at work for long hours because of the deadlines and that he also maintained good communication with his supervisors and with his clients which helped him overcome those challenges. Meanwhile, for participant 2 he mentioned that acknowledging your mistake and using it as a stepping stone to improve yourself, having the will not to give up, and doing things the right way are the important takeaways that made him overcome those adversities that he faced. Among these three virtues, he emphasized the importance of the work of an accountant as one of the organization's controls to prevent wrongdoings particularly in the preparation of statements of financial positions.

As for participant 3, he expressly stated that in his journey as a CPA he needed a lot of prayers especially when he was being asked to compromise his faith for his work and that it was a very difficult challenge for him as a newly baptized SDA. He further noted that when he was working in those various companies, he had to go home early every Friday to preserve the sabbath which is very challenging given their protocols. He also stated that being employed in many companies had challenged him to be familiar with different cultures and according to him it needed a lot of understanding and patience because he cannot assert what he already knows, rather he still had to be flexible and learn. In dealing with the sabbath participant 4 had almost the same experience except that she chose to work in the government where she worked for 19 years. She also mentioned that in her line of work she had to practice being courageous, and always practice putting God first before anything else because of the issue governing bribing and corruption which she witnessed. Aside from these, participant 4 gave a lot of importance to the virtues of "doing everything right" regardless of what other people will say to you and being firm on your faith of which she quote "The greatest need in the world is for men, men who will not be bought or sold; men who are true and honest in their hearts; men who are not afraid to call sin by its proper name; men whose conscience is as true to duty as the needle to the pole; men who will stand for the right even if the heavens fall; men who will stand for the right even if the heavens fall."

Advice and Recommendations of each Respondent

In response to the fourth research question, two themes emerged from the acquired data. These theme-based responses identified from the results of this study are as follows: Interpersonal and Intrapersonal Skills and are shown below in table 4:

Table 4.
Advice and recommendations of each Respondent

Research Question	Theme based response	Responses
4. What advice can you give to future CPAs in starting their career as accountants?	Starting your career smartly	"If you're thinking of starting your own company don't start there, you have to start gaining experiences from top accounting firms, gain networks and after five years of staying then you can choose where you want to be or start your own firm." Participant 1 - Public Practice

{table continues on the next page}

Know what you love	“there's no one size fits all you have to determine it for yourself. You have to do your homework and know where you want to be.” Participant 2 - Commerce and Industry
Be true and honest at all times	“If you know that what you're doing is right then stand your ground.” Participant 2 - Commerce and Industry “it's important to possess what is written in education 57” Respondent 3 - Academe “Possess the highest standard of integrity” Participant 3 - Academe
Put God first	“Hold on to the promises of God and always put him the center of everything, whatever your situation, whether you're earning just the right amount of money as long as you are with Christ you will always be satisfied and you can rest assured that He will never forsake you.” Participant 4 - Government

Starting your career smartly

As for participant 1, his advice was “I want you to work in a large auditing firm.” The respondent strongly recommended SGV. He greatly discourages CPAs to start their own company as soon as they pass the licensure exam by stating “If you're thinking of starting your own company doesn't start there, you have to start gaining experiences from top accounting firms, gain networks and after five years of staying then you can choose where you want to be in or start your own firm”. He also emphasized the benefits of being employed in public practice as an advantage in terms of experience and exposure. In summary of his recommendation respondents 1 strongly suggested going through the order: first in public practice. second commerce and industry, third academe and lastly the government.

Reuvid (2019) also cited this as one of the seven stages of success in his study “Start-Up Wise” where he provided a comprehensive, all-in-one-place guide providing everything a professional need to know for your journey, outlining seven key steps on how to start, manage and develop your career.

Know what you love

Participant 2 greatly emphasized the word “passion”. He said that “It starts with knowing what you love and by pursuing it you become diligent in your work”. He further states that regardless of the difficulties thrown your way keep on doing what you need to do and never give up. “When you're thrown lemons, you make lemonade”. He also said that “it is natural that you feel bad, give yourself time to look at things, evaluate what went wrong, but then keep picking yourself up.” Lastly, he said, “it is also good to know yourself because no matter what other people will say if you know that what you're doing is right then stand your ground.” In summary of his recommendation respondents 2 strongly suggested starting at Public Practice. then Commerce and Industry, followed by Academe and last is being in the Government.

According to Batipps (2019), Personal development is the process through which a person acknowledges and develops himself or herself in order to realize his or her maximum potential. Personal development is an essential component of a person's development, maturity, success,

and enjoyment. He went on to say that the majority of successful people value continued personal growth and development. They are at the pinnacle of their careers, but they continue to carve out time from their hectic schedules to push themselves farther out of their comfort zones and realize their full potential.

Be true and honest at all times

Participant 3 gave great focus on the significance of what is written in Ellen G White's Education, page 57 "True and Honest men" because according to him it is very foundational. "Just like the faith of Daniel, Joseph and Moses there will be tests everywhere. Tests that will challenge your faith. Even in our own institutions, tests will always be present and what we need to do is to possess the highest standard of integrity. So that you will be ready to face any challenges wherever we are."

In starting your career, you must examine yourself. "What do you really want?" "What do you want to do?" And then ask God to help you decide where to go. And do your best in your current situation.

Participant 3 stated, choosing whatever sector will depend greatly on your intention and your motive. Actually, you can learn a lot of things for each sector, however, he reserved the academy as the last sector, because for him it is very helpful for students to hear experiences not based on books to give them to incorporate real-life learnings from different sectors. He further claimed that it will be more explorative and exciting when the teacher can give real work examples to better enforce the learnings from the books. "So, for me, my first choice is either in commerce and industry or public accountancy and then the next one would be government accounting and the fourth one would be academe," he added.

As for the recommendation, Public Practice will be the first one because it will be your training ground as you start your career. And then Commerce and Industry (Private), next is Government, and the last will be Academe. "Get some experience" if you really want to teach because it will be a big help for you as you teach in the accounting profession.

Integrity, according to Lapteş (2019), is a crucial component of the accounting profession. In order to keep their integrity, accountants must be honest, direct, and forthright with their clients' financial information. Accountants should refrain from using sensitive information for personal gain. It also enables investors to trust the information they get about the companies in which they invest. The basic virtue of accounting is honesty, which allows financial decision-makers to make the best decisions possible.

Put God first

As for her advice for aspiring and new CPAs, she greatly valued the integrity and satisfaction of every Christian CPAs who will remain faithful to God by saying "*Kapag ikaw ay nakay kristo, pipiliin mo kung saan ang panginoon ay nalulugod sa 'yo na kahit 'di ka kumita ng malaking pera, masaya ka.*" She further notes that "*ano man ang iyong kursong kukunin, hindi ito para yumaman o sikat, but rather to glorify God.*" ("*When you follow Christ, you choose where the Lord pleases you so that even if you do not earn a lot of money, you are happy.*" She further notes that "*whatever course you take, it's not to get rich or famous, but rather to glorify God.*")

As for her recommendation with the different sectors of accounting she again stated "*Depende kung ano ang iyong tinatanaw o vision, yumaman ba o makapaglingkod sa panginoon?*" ("*Depending on what you see or vision, will you get rich or serve the Lord?*") *Dahil you cannot serve 2 masters at the same time*" because of the Saturday work. She further mentions that if working in the Government is a good choice "*considering walang work kapag Saturday at naglilingkod ka rin sa mga tao, pero laging tandaan na dapat nasa iyo si Kristo.*" (*Considering there is no work on Saturday and you also serve the people, but always remember that you must have Christ.*") she also states that in commerce and industry, "*malalaki magpa sweldo lalo na malalaking company,*

kaya lang based on my experience, marami kang time na gugugulin." ("Big companies pay higher salary, but based on my experience, you still have to spend more time and experience before being employed in that company") She also mentioned the public practice if you wish to gain experience and exposure while the Academe sector being the last where you will teach everything you have learned to future generations.

Grimes & Bennett III (2017) defines "Christ-centered leadership" as a Leadership that prioritizes God's precepts in all aspects of their lives, including their commercial dealings. It goes beyond the motivation to serve others (servant leadership) and suggests that some leaders want to place God's commandments prominently in the center of everything they do, including their business dealings. They also underlined that the "greatest commandment," which is to love the Lord your God with all your heart, soul, and mind, is the most important part of leadership motivation for Christians (Matthew 22:37).

From what was gathered from the participants, the researchers were convinced that the themes "Starting your career smartly, know what you love, be true and honest at all times and Put God first" are best to describe the data gathered from the respondents.

According to Garvin and Margolis (2017), Career growth and self-development include the ability to give recommendations and advice. It implies that abilities like self-awareness and diplomacy, which are linked to these acts, are not innate but can be learned. Respondent 1 greatly encourages future CPAs by advising them to gain experience, exposure to different types of businesses, and widen their connections by starting their career in a public accounting firm. Meanwhile, participant 2 gave importance to know what you love, especially in choosing which sector to be employed in and to continue pursuing it, never giving up whenever the challenges are too big, having the right attitude and mindset in adversaries, and standing for what is right at all times regardless of the circumstances you are in.

As for participant 3, he emphasized the importance of being honest at all times and possessing the other virtues shown by education 57 which describes a "true and honest man." These virtues, according to him, are a great foundation for your practice as a CPA who will stand for what is right. He further noted that as the CPA career being a noble profession that upholds and protects the public interest, integrity is a must to be kept. The same is being emphasized by participant 4 where she mentioned that God should be the center of everything and in whatever profession it should be for the glory of God. This depicts the importance of having a strong foundation which will surely help any CPA or professionals to stay true and honest at all times regardless of the situation they are in.

In gathering recommendations with regards to the four different sectors of accounting the researchers were able to find similar patterns such as most of them would like to suggest public practice as a starting career as an accountant because of the exposure and experiences they will certainly gain, followed by the commerce and industry where they can further give value to their gained experiences, next to this the researchers were able to gather reason as to why the third sectors are not unanimous among the four respondent. Reasons such as 2 of the participants don't prefer working due to the nature of work which involves a great amount of risk, while the remaining participants believe that it is necessary to gain experience first to be able to maximize the learnings and experience an accountant will gain which will surely be of use when they decide to teach students someday.

Despite the variance in the answers, the results show that the CPA career is a noble profession because they serve to protect the public's interest, a practical choice. After all, every business needs an accountant, and an important career because no business will survive without an accountant. According to is also a very challenging profession where you will meet a workload of challenges regardless of the sectors. Challenges that will surely test your faith and integrity especially when faced to choose between right or wrong. The results also proved that despite how vast the opportunities are to every accountant it is vital to know where you should start your career because

it will surely benefit each CPA in gaining an edge which could result in a better career path. Lastly, the results from this study are surely beneficial to accountancy students as a reference in their future profession.

Conclusions and Recommendations

This study has highlighted the importance of learning and studying CPAs' lived experiences in the accounting profession. The results revealed a significant relationship between knowledge about professional accounting background and students' career choice to become an accountant. As a result, all of the data acquired in this study was seen to be timely and relevant, as the individual's career choice was seen as being directly tied to his or her level of understanding of himself, the world of work, and, most importantly, his or her personal and professional motives. The responses of each participant in each question during the online interview proved this concept.

In conclusion, after working as an accountant for more than 15 years and in diverse accounting areas, the selected participants specifically revealed their perceptions and obstacles, as well as how they dealt with these challenges. As a result, the researchers come to the following conclusion:

1. Despite the difference in sectors and perceptions of CPA participants, it is still apparent that interpersonal and intrapersonal challenges, work related challenges such as: voluminous work, high pressure work area, and integrity-based challenges are still a constant.
2. "There is no one size fits all" Although in choosing one's industry in the accounting may differs from one another it is evident that one must know how to start his career, know what he loves, must uphold the highest integrity at all times and should put God first which may prove vital in becoming a seasoned CPA.
3. A newly passed CPA may start his career in any industry he wants to engage in but the external audit or public practice has been proven to be the ideal place to start one CPAs career due to its vast amount of exposure it offers to starters in gaining experience.

The researchers recommend the following:

1. To gather other relevant information needed to know before choosing which accounting industry to be employed in.
2. To extensively assess oneself of which industry he envisions himself to be in the long run to aid him in his future career plan.
3. To join accounting related community and gain colleagues or social support from those CPA who have been in the profession for a longer time.
4. To attend webinars/seminars that a) offers real-life based experiences such as round-table discussions and etc. b) that helps CPAs love their profession even more, c) that could hone one's knowledge and understanding of each sector of the accounting profession.
5. To join interschool related accounting related activities that offers in-depth understanding of the accounting profession and widen your peers and connections.
6. To conduct a quantitative study to further enhance the validity of of the results of the study and furthermore improve or modify the criteria set by the researchers in case it would produce better findings and results.

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EXPLORING BUSINESS RESILIENCE AMIDST VOLCANIC ERUPTION AND PANDEMIC: A CASE STUDY IN FOOD ESTABLISHMENTS

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Abstract

The cataclysms of 2020 have brought some of those vulnerabilities to light—with Taal Volcano catastrophically erupted on 12 January and COVID-19 still unfolding as an international public health disaster. The eruption of Taal caused days of travel difficulties wherein it also temporarily harmed livelihoods dependent on tourism in the vicinity of Taal Lake. Coronavirus has shown to be significantly more destructive, with demand-side consequences on the travel and tourism industry and the restaurant industry already being seen. This study aims to determine how food establishments survived to beat the difficulties against them during the volcanic eruption and global health crisis. Hence, while research has been conducted concerning post-disaster recovery in some parts of Tagaytay communities and (more generally) Santa Rosa, Laguna area, there is still a lack of understanding regarding entrepreneurial and small business recovery. The researchers used a case study method to explore SMEs' resiliency in the Philippines. This kind of analysis enables the analysis and comprehension of complex topics. Based on the data gathered, all participating restaurants claimed a significant sale dropped due to the Taal Volcano eruption and nationwide community quarantine guidelines brought by the COVID-19 pandemic. Because of these overlapping events, all food restaurants in the Philippines recalibrated their business strategies and evaluated their continuity plan to survive. The restaurant's business resiliency plan is based on what the LGU or DTI has given and the business seminars the owner attended that helped them stay afloat in the market. The stories shared by the owner and the manager of the restaurant showed how being adaptable to change helped these restaurants survive the unprecedented events.

Keywords: *Taal volcanic eruption, COVID-19 pandemic, business resiliency*

Small and Medium Enterprises (SMEs) play a significant part in a country's economy for both developed and developing countries they are considered as the backbone of economies with approximately 400 million SMEs around the world. The development of SMEs is linked to the growth of the overall employment in the Organization for Economic Co-operation and Development (OECD) economies, European Union (EU) countries, and in the Global South. Moreover, these SMEs are defined as non-subsidiary independent firms which are seen as prime contributors to job creation and globalization. According to the World Bank Group (n.d.), about 90% of businesses and above 50% of employment worldwide were represented by SMEs. These can be classified in different business areas like production, creation of employment opportunities, facilitating equitable distribution of income, and their contributions to exports are captious.

According to the WBG report, an estimated 600 million jobs will be demanded by 2030. This is to absorb the emerging global workforce that supports SME development a prime priority for governments worldwide. Moreover, the second most cited obstacle that hinders the business growth of SMEs around the world was found to be access to finance. For this reason, SMEs are barely able to obtain financial loans from the banks compared to large corporations. Instead, they depend on internal funds or funds (WBG, n.d.).

In the Philippine setting, the competitiveness of small firms is essential in building resilience to shocks while promoting sustainability and growth (International Trade Centre, 2020). However, the Philippines, specifically cities and provinces near Taal Volcano witnessed the eruption after 42 long years. Historically, the volcano erupted in October 1977 with volcanic unrest for several years (Macaraeg, 2020). On January 12, 2020, Taal volcano spewed ashes that reached Cavite, Laguna, Batangas, Rizal, Quezon (CALABARZON), Bulacan, Muntinlupa, Las Pinas, Marikina, Paranaque, Pasig, Quezon City, San Juan, Makati City, and Taguig City (Rappler.com, 2020). Several areas in CALABARZON experienced multiple power outages due to eruptions. People within the 14-km radius from the main crater evacuated their respective homes. Businesses within the 14-km radius halted their operations and faced closures (Ganzon-Ozaeta, 2020). Specifically, Tagaytay, where there are 285 restaurants, 64 roadside eateries, and 56 hotels, was affected according to the Department of the Interior and Local Government (DILG) Undersecretary Epimaco Densing (ABS-CBN News, 2020).

Tagaytay is in the province of Cavite and is a famous getaway town south of Manila. It is known for its mild climate with refreshing views overlooking Taal Lake and the majestic Taal Volcano. But after the eruption, business establishments in Tagaytay were all covered in ashes. Local tourism has dropped by 70% from December 2019, and up to 100 tourism-related establishments have closed, said Jelanne Mendoza, local tourism officer of Tagaytay (Cabato, 2020).

On January 20, 2020, days after the eruption, a group of businesses in Tagaytay already resumed their operations, while Alert Level 4 remained over Taal volcano. According to Epimaco Densing, almost 50 restaurants, 14 malls and parks, and 8 hotels have opened over the weekend – with the approval of Mayor Agnes Tolentino (CNN Philippines, 2020).

Not long after the Taal eruption, on January 30, 2020, the Philippines confirmed its first case of novel coronavirus or SARS-CoV-2. A 38-year-old female Chinese national who traveled from Wuhan, China—wherein the first known infection was discovered (Gregorio, 2020). Coronavirus disease (COVID-19) is a transmissible disease, emerged from a newly discovered coronavirus (World Health Organization, 2023). Infected individuals may experience a Flu-virus like symptoms that is reported to be mild to moderate respiratory illness. It is believed that this virus was first found in Wuhan, China, and eventually spread around the world. According to the World Health Organization, about 80% of patients only experience mild sickness and recovered. And around 14% experienced severe symptoms while 5% were critically ill (Channel News Asia, 2020). Thus, there is a total of 114 million COVID cases, 64.4-Million recovered cases, and 2.53-million deaths worldwide (World Health Organization, 2023).

The Philippines has been battling with the COVID-19 pandemic for a year now, with continuous fluctuation of cases daily. According to the Department of Health (DOH), the Philippines has recorded 576,352 cases and 12,318 deaths as of March 01, 2021 (Lema & Morales, 2021). Therefore, affecting business operations around the country since 2020. Before the COVID-19 pandemic, the food and beverage (F&B) industry were growing and had accumulated revenue of more than ₱600 billion in 2019 alone (Nuestro, 2020). However, due to unprecedented events, the food and beverage industry was heavily challenged. Not only by the pandemic, but also when the Enhanced Community Quarantine (ECQ) was implemented by the government starting March 2020. According to Nuestro (2020), an estimated 500 million employees in the F&B sector were affected and received no income.

The closure of food establishments and the implementation of strict protocol guidelines obstructed other business sectors in the Philippines like farming and fishing activities. Thus, it affected the supply and demand of the F&B sector (Nuestro, 2020). According to the Department of Trade and Industry (DTI) secretary, Mr. Ramon Lopez, around 90,000 micro small and medium enterprises (MSMEs) remained closed as the COVID-19 pandemic continued to cause disarray on the economy. About 1.5 million businesses are registered and based on their surveys with a base of 3,000 respondents 38% are still closed (Ramos, 2020).

Beforehand, companies that were competitive before the pandemic were less affected by COVID-19. It is found that due to their skills, innovation and financial management they were more likely to adopt resilience (ITC, 2020). Small and Medium Enterprises (SMEs) in the Philippines employ 60% of Filipinos. This is linked to the AmBisyon Natin 2040, the national vision for securing life for all Filipinos (NEDA, 2016). Moreover, most Filipino firms were affected by COVID-19. However, according to the survey conducted by ITC, more competitive firms were less affected by the health crisis. Small companies excel in skills and innovation, and innovative firms were more resilient to the health crisis. Thus, it builds a stronger connection that fosters access to information. These connections helped firms get information about COVID-19 which helps in improving the SME's competitiveness amidst pandemic and for the new normal (ITC, 2020).

Hence, the Food and Drug Administration (FDA) provided a food safety re-opening checklist for all previously closed retail food establishments nationwide, also, those food establishments that open with limited service due to the COVID-19 pandemic. This addresses the key food safety practices to consider upon re-opening and restarting operations. Thus, the checklist is expected to encourage food establishments to partner with local health authorities before re-opening (US FDA, 2020).

According to Abdin, (2020), consumption of essentials is not possible to be stopped in any situation. Discontinuation of the supply of essential products may deepen the crisis even further. Therefore, the following issues could be considered to run the business during the crisis and recover at once after the crisis through the means of following the law on how to operate during the pandemic. The study of Fabeil et al (2020) stated that micro-entrepreneurs started to survive in their business as the government released several restrictions during the recovery phase of COVID-19. Thus, the goal of this study is to determine how food establishments during the volcanic eruption and global health crisis survived despite having the odds against them. Hence, while research has been conducted concerning post-disaster recovery in some parts of Tagaytay communities and (more broadly) Sta. Rosa, Laguna area, there is still limited understanding about entrepreneurial and small business recovery. This study explored the business resilience of selected food establishments in Sta. Rosa and Tagaytay that experienced both the Taal Volcano eruption and the COVID-19 pandemic, which can be a basis for a Resilience and Recovery program. Specifically, the following questions were addressed in this study:

1. What are the damages to selected food establishments brought by the Taal Volcano eruption and COVID-19 pandemic?

2. How was the business operation of the selected food establishments:
 - a. Before the Taal Volcano eruption and after the eruption?
 - b. Before pandemic and amid the pandemic?
3. What are the challenges of the selected food establishments brought by the Taal Volcano eruption and COVID-19 pandemic?
4. What are the plans and strategies of these selected food establishments if such a cataclysm reoccurs?
5. How do these selected food establishments maintain business resilience amidst the Taal Volcano eruption and COVID-19 pandemic?

This study is essential as it provides information related to the resilience of businesses. Business owners who experienced environmental disasters will benefit from the study. Researchers would be able to evaluate the appropriate technique in which they are supervised, which would also benefit them strategically. The study will likewise benefit researchers, business owners, the University, and the readers. The research entails the resiliency of the selected food establishments in Ayala Malls Solenad, and Tagaytay vicinity that experienced both Taal volcanic eruption and COVID-19 outbreak. The chosen participants were the managers of the following food establishments located in Ayala Malls Solenad and restaurants resided in Tagaytay based on the two categories: (1) in operation on or before January 01, 2020, and experienced both Taal volcanic eruption and COVID-19 Pandemic. (2) in business operation for six months after CALABARZON was placed into General Community Quarantine (GCQ). The researchers interviewed the four (4), respective managers of different food establishments, via Zoom application, Microsoft Teams, or Facebook Messenger. The claims of each respective manager about their experiences of the national disaster and disease outbreak were considered. However, this study did not cover the claims of newly established SMEs amidst cataclysms. Furthermore, this study used three triangulations to enhance credibility namely (1) Data triangulation (2) Investigator triangulation (3) Method triangulation. The goal of triangulation is to improve the qualitative research process by applying multiple approaches (Korstjens et al., 2018). A purposive sampling technique was used in gathering data from the participants. Specifically, deviant case sampling, a type of purposive sampling that is useful for a researcher who seeks to investigate the outliers from a phenomenon or trend. The researchers also considered the following situations. (1) The COVID-19 Pandemic has proven much more consequential and its demand-side effects on travel and tourism that are already being felt. Due to this circumstance, the researchers suspended data collection considering social-distancing measures that forced the researchers to do virtual interviews. Along with it, (2) the strict quarantine protocols being implemented, limited the researchers to conduct the study on-site to prevent the spread of the virus. The first thing to remember is that the participants' and researchers' health and well-being should come first in the process of conducting this study. (3) The refusal to participate due to some reasons (e.g., unavailability, poor internet connection, privacy). Background on the variables of the study such as volcanic eruption, and its challenges, COVID-19 pandemic and its challenges, plans and strategies of food establishments during cataclysm, and business resiliency amidst cataclysms, were presented. The study is based on the theory systems analysis which is discussed in the book "The Systems Analysis" (Jenkins & Youle, 1968). The theory implies that every organizational development is built on the foundation of the system approach to management philosophy. According to the CFI website, a business is similar to the human body in that it is made up of various components that must operate together in harmony for the bigger unit to function properly. It views the organization as an open system that consists of both interrelated and interdependent parts that link as a sub-factor (Gordon, 2022). The systems approach refers to the idea of dealing with the system. And because of the growth and complexity within establishments and the innovation of technology making this approach is now essential. For this to be effective and efficient, a business should have a comprehensive system of business objectives. Thus, a detailed

business system is necessary upon making the best business objective and a built subsidiary system to realize the efficiency of this objective (Jenkins & Youle, 1968)

The strengths of this theory are the following: (1) failure can lead to success due to correcting the error in the system; (2) Optimizing the entire system; (3) a three-dimensional point of view; (4) a systems approach is dynamically interrelated; (5) helps the business see problems as exciting opportunities (Derrick, 2022). Meanwhile, the weaknesses are (1) unity and harmony are not always possible; (2) views the business as a concrete item; (3) fails to provide systems that apply to all types of businesses (Tanuja, 2016). Figure 1 shows that to build up business resilience, there are 6 key elements to be considered. According to Mckinsey's 7s model (1980) as cited in Peter (2011) "Strategy" entails, and how resources would be allocated to accomplish the said goals. How active the company is in the changes in the market, and how others would distinguish one from other competing businesses. Next, "Structure" is simply putting who is on the top and who is below. It is investigated, with job descriptions, delegations, and who supervises or is governed by whom all being considered. "Systems" refers to the collective way in which employees in an organization carry out their responsibilities. The process should be related to how they carried out their tasks. "Staff" is the talent the company has managed and assembled. This applies to all staff, including receptionists, drivers, and, supervisors, from the ground up. Obstacles or "Subject" are the challenges that the organization faces in its past, present, and future endeavours. This could mean natural, or human-made disasters. Lastly, the "Customer" in general is the one that makes the organization money. The customers are the ones that pay the organization money for it to make its profit. In the end these six elements are all connected to business resiliency no matter what happens these are all included in the circle.

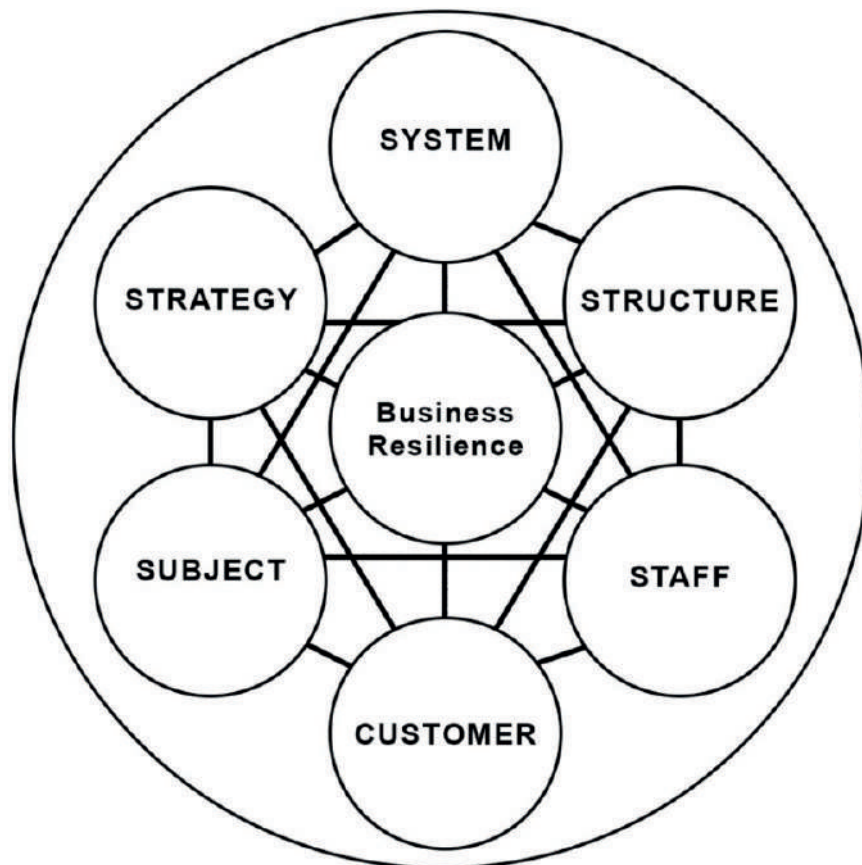


Figure 1. *Systems Approach Management Diagram*

To conceptualize, the researchers define resilience as a meta-capability, broken down into its constituent pieces. Researchers employed the McKinsey 7s Model, which they adapted based on process-based resilience research. These constructs include Strategy, Systems, Structure, Style, Staff, Skills, and Shared Values (Njeru, Awino, & Adwet, 2017), but instead of Shared Values, researchers substituted Customer. The concept entails identifying the primary challenges that contribute to an organization's strategic goals, as well as links between the seven constructs to demonstrate how changing one necessitates changes in the others (Cox, Pinfield, & Rutter, 2019). Through this framework and with the help of System Approach Theory, eased the understanding of the researchers with the findings from their study. They combined 7S Framework with System Theory Approach to unravel what it takes to evolve a crisis-resilient operating model. When properly done, it helped; (1) Detect weaknesses, lack of coherence and misalignment across your company (2) Validate the core competencies to enhance/defend in the marketplace (3) Confirm that the "setup" of the organization is best/effective for meeting and thriving in a crisis-prone business context (4) Reveal gaps that leave you vulnerable to competitive pressures and external shocks (5) Assure that crisis responses remain aligned with overarching values or vision.

The researchers were particularly interested in learning about the economic impact of the outbreak on small businesses, how SME managers prepare to deal with the crisis over time, whether they have a formal crisis management plan, what types of survival strategies were used after the outbreak, and whether these strategies differ depending on the size of the business.

Methodology

This chapter discusses the methodological approaches of the study. The researchers describe how they made the material available, how they collected information, and where they conducted the analysis in this chapter. The research design, sampling technique, instrumentation, data collection method, and data analysis are all covered in this chapter.

The goal of the study was to see how business owners reacted to severe business disruption and new post-disaster situations. The research's complexity necessitates an inductive approach to investigate the selected entrepreneurs' thoughts, feelings, actions, and behaviors.

Research Design

The researchers investigated the resiliency of SMEs in the Philippines using a case study method. This form of research strategy, according to Zainal (2007), enables for the examination and understanding of complicated subjects and is regarded as a reliable research method, especially when a comprehensive and in-depth examination is necessary. The case study technique is defined by Yin (1984:23) cited in Zainal (2007) as "an empirical enquiry into a contemporary phenomenon inside its real-life setting; when the boundaries between phenomenon and context are not obvious; and when numerous sources of data are utilized."

Participants of the Study

The chosen context for this sample is the Taal Volcano Eruption and the Pandemic (still unfolding), the region endured throughout 2020 up to the present led to business establishments halting their operations that consequently affected many businesses immensely.

The chosen participants are the managers and the owner of the food establishments in Ayala Malls Solenad and Tagaytay vicinity. The following restaurants were chosen based on the two categories: (1) Operating on or before January 01, 2020, and experienced both Taal volcanic eruption and COVID-19 Pandemic (2) In business operation for 6 months after CALABARZON was placed into General Community Quarantine (GCQ).

Thus, the researchers believed that the data gathered from three (3) respective managers and one (1) business owner of different food establishments will shed light on the existing problems and in case it reoccurs in the future.

Table 1 presents a list of names from Ayala Malls Solenad and Tagaytay, Philippines showed together with the restaurant code name and their respective job position. All participating food restaurants of the study were not disclosed. Instead, the researchers of this study assigned a code name on each of the participants. All chosen food establishments belong to the restaurant industry. Two (2) of them serve as a café and restaurant, and the remaining two (2) operate as casual dining restaurant.

Table 1
Proposed Food Establishment

Name	Position	Business Address	Industry Classification
Restaurant A	Owner	Ayala Malls Solenad 2 Nuvali, Santa Rosa – Tagaytay Rd, Santa Rosa, 4026 Laguna	Restaurant Industry
Restaurant B	Manager	Ayala Malls Solenad 3 Nuvali, Don Jose, Santa Rosa, Laguna	Restaurant Industry
Restaurant C	Manager	Santa Rosa – Tagaytay Rd, Tagaytay City.	Restaurant Industry
Restaurant D	Manager	Santa Rosa – Tagaytay Rd, Tagaytay City.	Restaurant Industry

Sampling Technique

The researchers employed a purposive sample strategy to collect data from the subjects. Judgment, selective, or subjective sampling are all terms used to describe this sample technique (Black, 2010). This sampling strategy, according to Business Research Methodology, relies on the researchers' judgment when selecting a portion of the population to participate in the study. As a result, a non-probability sampling strategy is produced that can be useful when only a small number of people are the primary data source (Saunders et al., 2012).

Business Resiliency Amidst Cataclysms

The researchers of the study informed beforehand, all four (4) respondents who took part in this study voluntarily, specifically the manager or the owner of the business. Consent was given stating the purpose of the study and its background. Any potential harm during the procedure was informed ahead of time. Thus, all concerns of the respondents were treated properly. In case of withdrawal of participation, the researchers respected the decision.

Anonymity and Confidentiality

All personal information of four (4) respondents of this study were undisclosed. The convention of confidentiality were undisclosed to protect the respondent's privacy. However, the researchers of this study explained the difference between being confidential and being anonymous. The researchers limited the use of the information to the study,

Analysis of the Study

In this part, the researchers presented all the findings, analysis, and interpretation of data gathered from four (4) business owners or managers of the participating restaurants whose businesses experienced both the Taal volcano eruption and COVID-19 pandemic. Moreover, the questions related to business resilience in the selected food establishments from Ayala Malls Solenad and Tagaytay was analyzed and interpreted in this section using a thematic approach.

Results and Discussion

The primary purpose of this chapter was to unfold, acknowledge, and understand the battles of selected food restaurants in Ayala Malls Solenad and Tagaytay vicinity amidst the overlapping cataclysm happened in the year 2020, namely Taal Volcanic eruption and COVID-19 Pandemic.

The other purpose of this study was to identify the business plans and strategies implemented as resilient after the impact on business operation.

The respondents' experiences added insight to the research questions in this study. By conducting and analyzing the experiences of the respective business managers and business owners through online interview valuable information was obtained about 1. Damages to these food establishments brought by cataclysms, 2. The business operations before and after the 2 cataclysms, 3. Challenges brought by these cataclysms, 4. Plans and strategies if such cataclysm reoccurs, and 5. Unfolding the business resiliency plan to maintain business operation amidst cataclysms.

The results of this qualitative case study are based on online interviews of four restaurants from two different locations: two from Ayala Mall Solenad, and two from Tagaytay vicinity. These selected restaurants received a letter of consent explaining the anonymity and confidentiality as a respondent if they agreed to be part of the study. All four were solicited through text message and various social media networking platforms.

The four participants of this study came from the pool of restaurants that passed the two categories to be the respondent of this study. They must be operating on or before January 01, 2020, and experienced both Taal volcanic eruption and COVID-19 Pandemic. These restaurants must be in business operation for 6 months after CALABARZON was placed into General Community Quarantine (GCQ).

Participants interviewed for this study were three operations manager and one business owner. Three restaurants are classified as medium business, and one small business. Furthermore, one restaurant categorized as sole proprietorship, one with partnership, and two under corporation. These participants were in business operation between nine to twenty years and have 25 to 70 employees before the pandemic. More information about the four participants is included in the appendices.

Online interview was the best and the only effective means to communicate with the participants due to the country's pandemic safety guidelines and due to the participants' location. For that reason, the interviews of four restaurants were conducted during the availability of these participants. Beforehand, the researchers asked the participants' permission to record the interview for transcription. Recording and transcription was done through listening the recorded interview manually. Each interview was transcribed by each researcher of this study. It took a couple of days to finish all transcription of interviews. Afterwards, the researchers met online and discussed, reviewed, and verified all answers through secondary sources found on the internet. The interview was conducted with the Zoom videoconferencing service. For it is the most convenient for both the researchers and participants of this study. Interview times varied from 45 minutes to 2 hours maximum. All interviews were conducted during the months of July and August 2021.

Damages to Selected Food Establishments Brought by the Taal Volcano Eruption and COVID-19 Pandemic

Four restaurants participated in this study. Each of these restaurants were classified under small-to-medium enterprise in the Philippines that experienced two overlapping unprecedented events. Based on the data gathered Restaurant C confessed that "We all thought business would collapse. Then the question was, could we still go back or get up?" All participating restaurant claimed a significant sale dropped because of unprecedented events. Restaurant D even claimed, "Our sales dropped by more than 70%."

Table 2

Damages brought by the Taal Volcano Eruption and COVID-19 Pandemic

Research question:	Theme Generated:
1. What are the damages to selected food establishments brought by the Taal Volcano eruption and COVID-19 pandemic?	<ul style="list-style-type: none"> • No Physical Damage • Financial Damage that leads to sales drop

No Physical Damage

Businesses along Tagaytay and Sta. Rosa area, including fruit and food booths, pasalubong shops, hotels, restaurants, retail malls, were all closed due to the eruption of the country's second most active volcano. It has temporarily affected the operations of business establishments within the area. Ashfall can cause physical damage to establishments, equipment, machinery, inventories, and supplies. Luckily this has not been a major challenge for the restaurants. It only caused a temporary halt of commercial activities and other operations but generally, the effects did not bring catastrophic physical damages to the participating restaurants.

Financial Damage that leads to Sales Drop

All four restaurants that participated in this study faced temporary closure on January 2020 due to Taal volcanic eruption. Two restaurants from Ayala Mall Solenad were closed for two days. While the two restaurants from Tagaytay were closed for two weeks. Eventually, lockdown happened due to COVID-19 pandemic that lasted from March 15, 2020, until May 15, 2020. All four restaurants were not operational during the country's lockdown.

In 20 years of business operation Restaurant A was never set-up for take-out restaurant or for a delivery. Under GCQ, restaurants and food establishments are only allowed take-out and delivery services. Dine-in operations were only allowed at a 50% maximum capacity under Modified General Community Quarantine (MGCQ), where during this time majority of provinces in the country were classified. (DTI, 2020). Due to less dine-in customers that can be counted by fingers and with the implementation of the safety protocols guidelines by the COVID-19 Inter-Agency Task Force (IATF) the restaurant recalibrated its business strategies and complied to the order all while suffering from the effects of the pandemic. All restaurants must establish equipment and systems to monitor each customer's health status, as well as sanitize tables and chairs after each customer's use. Tables and chairs must be at least one (1) meter apart on all sides when dining indoors. Face-to-face seating will only be permitted if appropriate separators have been built. Also, a visible floor marking for customer queue guidance, preferably color-coded, is required. Additionally, proper ventilation in the establishment; accessibility and visibility of sanitizing equipment and tools; provision of food menus per table; contactless order-taking; covering porous furniture with plastic for ease of sanitation; clean trash bins for used papers and tissue; clean washrooms and toilets with sufficient soap, water, tissue, and toilet paper; and disinfection of high-risk areas every 30 minutes is mandatory and an obliging requirement (DTI, 2020).

When the interviewer asked Restaurant B about their sales, Restaurant B shared that the restaurant has a target sale of Php30,000 to Php35, 000 on weekdays. While every weekend the restaurant's target sale is Php100,000. It is worth mentioning that some restaurants had temporary closure due to both cataclysms. Restaurants A, B, C & D had a business closure but differs in span of time. Both Restaurant A and Restaurant B were temporarily closed for days after the eruption and closed for 3 months during the pandemic because of IATF protocols. On the other hand, Restaurant C and D were closed temporarily for two (2) weeks because of the hefty ashfall where the restaurant needed to clear out but was soon operational. During the pandemic the restaurant had to close for a period and had to wait for the official announcement of the Local Government Unit (LGU) to allow the restaurants to start operating again under General Community Quarantine (GCQ). It refers to the temporary imposition of restrictions on movement and transportation, as well as the regulation of running industries and the presence of uniformed officials to enforce community quarantine rules (IATF, 2020). Furthermore, the sales of Restaurant C dropped because almost all reservation for that year were cancelled because of the pandemic. The sales of the restaurant dropped significantly. Hence, the sales were zero. The income of the restaurant was considered zero even the restaurant was operating. During the pandemic Restaurant D was closed the same length as Restaurant C because both were in Tagaytay, and both follow the LGU who officially announced when they can operate again.

Business Operation Amidst Volcanic Eruption and Pandemic

All four restaurants had different answers on the interview questions that the researchers asked regarding how business operations adapted during catastrophes. On this part, the situation before and after volcanic eruption, and before and amid the pandemic were discussed.

Table 2

Business Operation Amidst Volcanic Eruption and Pandemic

Research question:	Themes Generated:
2. How was the business operation of the selected food establishments in the following situation:	<ul style="list-style-type: none"> • Business operational stability before volcanic eruption • Operational status and its impact after volcanic eruption • Business operation before the pandemic • Commercial activity amid pandemic
a. Before the Taal Volcano eruption and after the eruption	
b. Before pandemic and amid the pandemic	

Meanwhile, Restaurant D had to close the restaurant for two weeks (January 12-20, 2020) after the eruption to clean the restaurant. But after January 31, 2020, sales and worker normalized like before the eruption.

Business Operation Before the Pandemic

Few weeks after the Taal volcanic eruption the Philippines reported its first COVID-19 case. During those times Restaurant A claimed that the business was good. The restaurant was good in Solenad. Especially December before pandemic because of the light water shows produced by Ayala that attracted volumes of people to go to the malls.

On the other hand, Restaurant B shared that even before the pandemic the restaurant couldn't hit the target quota since after Taal volcanic eruption.

The manager of restaurant B believed that it was correspondingly due to the news about an increase in COVID-19 cases in other countries that brought fear to customers (while Restaurant C shared a story).

These two overlapping unprecedented events notably happened within two months of 2020. According to the findings, the restaurants were still recovering from the damages brought by these cataclysms. Then, the whole country went lockdown unexpectedly to control the pandemic surge. Majority thought that this pandemic would only last for few months. But the pandemic did not end up after few months. Instead, the Philippines is still facing COVID-19 pandemic situation brought by its mutating variants. Now, these restaurants still must face the situation and be in business operation amid COVID-19 pandemic.

Commercial Activity Amid Pandemic

All four participants shared the unforgettable experiences the restaurants experienced during these unprecedented events. One year after the pandemic happened these four participants have shared common problems brought by the overlapping unprecedented events especially the on-going COVID-19 pandemic. Because of the overlapping events of Taal Volcano eruption that happened January of 2020 and nationwide community quarantine guidelines brought my COVID-19 pandemic on March 2020, and up to recent. All food restaurants in the Philippines recalibrated their business strategies to survive.

The owner of restaurant A believed that their regular customers played a vital role on why the restaurant survived this pandemic. Restaurant A even added that social media networks like Instagram (IG) and Facebook (FB) gave a huge help.

Meanwhile, Restaurant B talked about the importance of getting familiarize with other job responsibilities. Since half of the employees voluntarily quit the job because of health and safety

reasons. The remaining employees needed to do the job of those who voluntarily quit, (*Restaurant C shared an experience*).

The manager of the restaurant C believed that due to the pandemic the food and beverage industry learned how to work together and support each other to survive this. Although these restaurants have competition, all of them want to survive and no one must go and file bankruptcy. Meanwhile, Restaurant D adapted online selling of their products which turned out to be good, (Restaurant D shared a comment). According to DOLE 2 Director Atty. Evelyn R. Ramos, under the COVID-19 Adjustment Measures Program (CAMP), workers can receive Php 5,000.00 in cash support (DOLE, 2020). The emergence of online food delivery apps significantly helped all operating restaurants in the country to survive this on-going pandemic. The financial assistance from the government also helped business owners and their employees respectively to finance the restaurant continuously. Hence, although there is competition in the food and beverage industry, when it comes to crisis these restaurants learned how to rise together.

Challenges of these Restaurants Brought by Volcanic Eruption and Pandemic

The researchers of this study asked four interview questions to answer the research problem about the challenges brought in the business by unprecedented events namely Taal volcanic eruption and COVID-19 pandemic. The challenges the researchers have gathered and identified were workforce amidst cataclysms, difficulty in acquiring stocks, restaurant had to cut down their stocks, continuous utility expense amidst cataclysms, maintaining the business operation with its current cash flow, implemented guidelines by the government, and news broadcast by the media to the public.

Table 3

Challenges of these Restaurant Brought by Volcanic Eruption and Pandemic

Research question:	Themes Generated:
3. What are the challenges of the selected food establishments brought by the Taal Volcano eruption and COVID-19 pandemic?	<ul style="list-style-type: none"> • Workforce amidst cataclysms • Difficulty in acquiring stocks • Restaurant had to cut down their stocks • Continuous utility expense amidst cataclysms • Maintaining the business operation with its current cashflow • Implemented guidelines by the government • News broadcasted by the media to the public

Workforce Amidst Cataclysms

It is mentioned on the first part of the interview that these restaurants originally had 100% of their employees employed before and after Taal volcanic eruption and pre-pandemic. However, these restaurants faced limited workforce amid COVID-19 pandemic. Although these restaurants did not lay-off any employee. Some of its employees voluntarily resigned due to health and safety reasons. The remaining employees are now practicing skeletal workforce following the safety guidelines by the IATF.

Based on the interview Restaurant A did not have problems on employee shortage because the restaurant had kept 50% of its employees. The restaurant kept the senior employees and gave separation pay to employees who were retrenched; while the employees who stayed were given housing privileges for them to be kept safe and those near their workplace. Restaurant A only experienced shortage of employees during Mother's Day but other than that no other employee was needed.

Meanwhile, Restaurant B had 10 employees and did not do any layoff because the employees themselves either resigned or were on hold hoping they could return if the pandemic is ever solved. Like restaurant A, the remaining employees of restaurant B did tasks outside their job descriptions;

like managers being waiters, and chefs being dishwashers. For them not to do any layoff, it was the employees themselves that divided their schedule.

Restaurant C had 60 employees on its restaurant, but amid the pandemic only 25 were allowed to go on duty. The manager explained that aside from its regular employees the manager has said that the restaurant has on-calls. These on-calls are the one suffering from this pandemic.

Lastly, Restaurant D had 25 employees, 19 of them regular and the remaining 6 were on-calls. After the Taal eruption the restaurant only had fifty percent (50%) of its employees to work for them in cleaning the restaurant. But during the pandemic, like restaurant B and restaurant C, employees divided their duties. And in those times the restaurant was picking up the restaurant had to add more employees. Like weekends when the restaurant sometimes had a one hundred guests.

Difficulty in Acquiring Stocks

Only Restaurant A and Restaurant B had trouble in acquiring raw products for their business. Although these two restaurants experienced food shortage among the four restaurants, but each of them experienced difficulties during these unprecedented events.

Fortunately, the customers were too kind and understanding regarding the situation of country especially the food and beverage industry according to Restaurant B. On the other hand, Restaurant C had no problem with their inventory. Normally the restaurant stock supplies for 2-3 weeks to one month. Before the restaurant had run out of stocks the restaurant immediately ordered supplies. Similarly, Restaurant D had not faced any trouble with their inventory.

Restaurant Had to Cut Down their Stocks

Out of the four restaurants only Restaurant B had to cut down their stocks to avoid spoilage. On the other hand, the three restaurants respectively did not cut down their stocks after the Taal volcanic eruption and amid the COVID-19 pandemic. Both Restaurant C and Restaurant D monitor their inventory and proactively respond to this kind of situation.

Continuous Utility Expense Amidst Cataclysms

Aside from the damages mentioned brought to these restaurants, there were other utility expenses that needed to be settled continuously all while under catastrophe. On the other hand, Restaurant B was grateful that Ayala slightly lowered the rental percentage and considered the pandemic situation of the country unlike before that the restaurant could not break-even. Aside from the financial damages brought by these unprecedented events especially the pandemic. Restaurant C claimed that the most harmful consequences brought by these cataclysms is to see colleagues with them during their highest in the restaurant industry to go bankrupt and close-down. Restaurant D said “*3 financial damages of the restaurant are the rent, water, and electricity payments even if the restaurant is closed. Then our employees can survive even if our sales are small. Based on my profit and loss, it's only partial because our employee recruitment depends on our sales. The income during that time was breakeven.*” After being in business operation for years to decades these overlapping unprecedented events challenged these restaurants regarding their ability to adapt to new changes brought by these cataclysms.

Maintaining the Business Operation with its Current Cashflow

The researchers have identified that after Taal Volcanic eruption and amid the pandemic there was a cash flow shortage in some restaurants. The researchers asked about how long the company's current cash flow could maintain the business. When asked if the restaurant is considering some bank loans or any government assistance. While Restaurant B could manage their finances well and did not need any bank loan to finance the business, according to what the manager of Restaurant B shared, it was not the same with others.

On the other hand, Restaurant C experienced a little bit of cash flow problems. But to solve the problem, Restaurant C had to sell some of their personal property that were for sale a bit lower for their preferred price. At the same time, Restaurant D is also positive that the current cashflow of the restaurant can maintain the operation of the restaurant.

Implemented Guidelines by the Government

The researchers identified that all respondents of this study from Restaurant A, Restaurant B, Restaurant C, and Restaurant D that were interviewed were strictly following the set of guidelines that IATF issued and were following news of when to open from the local governing units (LGU). While, both Restaurant C and Restaurant D from Tagaytay both followed the guidelines from the LGU.

The local government of Tagaytay has forced restaurants and other establishments to close every Monday for disinfection, according to an executive order issued by Mayor Agnes Tolentino. The first offense will result in a one-week temporary closure, and the second offense will result in a one-month temporary closure (Abrina, 2020).

News Broadcast by the Media to the Public

Lastly, when asked about the factor that made people terrified to go out all the participants agreed that media has a significant role because people always listen to the news. Mass media became the prime source of information about the novel coronavirus or COVID-19 (Anwar et al, 2020). According to a study conducted in North India, the most common source of concern during the COVID-19 epidemic was the use of social media, which was followed by TV news before and during lockdown. Furthermore, anxiety caused by COVID-19-related news in the media was highest (27.3 percent) in the 40–49-year-old age group and lowest (14.49 percent) in the 20–29-year-old age group. Due to COVID-related news in the media, 43.18 percent of persons aged 30–39 developed fear, while 28 percent of people aged 50–59 developed panic. On the other hand, Restaurant B did not have any thoughts regarding news broadcast by the media. However, a similar case affected the restaurant when the news circulated that people could contact the virus through contact.

Lastly, Restaurant D also believed that media broadcasts decisions that are not yet accurate. Like media broadcast that Philippines will be under Enhance Community Quarantine (ECQ). Then after two hour the media will announce new quarantine guidelines. These restaurants believed that fear from the public was brought by some news broadcasted to the public without verification and validation. People always believe what the news say about the situation of the Philippines regarding the activity of Taal volcano and the on-going COVID-19 pandemic. Thus, media confuses the people.

Plans and Strategies of These Restaurants if such Cataclysms Reoccur

The researchers have identified that the respondents of this study were able to device plans and strategies if such cataclysm ever reoccurs. Also, on the medium of communication in disseminating news and changes for their customers. Thus, all four restaurants gave varied answers.

Table 5

Plans and Strategies of these Restaurants if such Cataclysms Reoccurs

Research question:	Themes Generated:
4. What are the plans and strategies of these selected food establishments is such cataclysm reoccurs?	<ul style="list-style-type: none"> • Decision-making & business resiliency plan • Communication channels of these restaurants • Services practiced all while following the safety protocols of IATF

Usage of an Efficient Logistics to Address Delivery Problems

For business owners, having an efficient supply chain and logistics infrastructure that assures the timely delivery of raw materials is vital. Food manufacturers confront numerous supply chain issues as a result of these circumstances, particularly now that they are dealing with a global epidemic. Some participants suggested that storing perishable things and managing the temperature by shielding them from excessive temperatures to avoid any degradation in the product's quality is beneficial in maintaining their freshness and quality. As a result, a supply chain and logistics system that ensures that food goods reach their final consumers within a certain time frame can aid enterprises in preventing food spoilage, financial loss, and resource waste.

Lives have largely moved and shifted each one from a physical dimension to the digital world where most transactions are concluded online. Food delivery applications like Food Panda, Grab Food, and other third-party deliveries helped many food establishments to stay afloat during lockdowns allowing diners to stay in and still order out. But despite the significant breakthroughs of food delivery service in the past years, miscommunication has been present with the riders and food establishments like what Restaurant B encountered, (Restaurant B related).

An Increase to Its Annual Net Revenue

During interviews, respondents were asked if their company's yearly net revenue would increase this year, and most of them still expected sales and profit to rise significantly in 2021, bringing them closer to prior years' levels. Despite the constantly changing quarantine categories that have had a significant impact on their profitability and the loosening of limitations, all four eateries remained optimistic. Despite the bleak future for the food industry.

All the participating restaurants are still optimistic that their sales would swing back to profitability in 2021 and they projected an increase in the growth rate next year. Projections assume that lockdown restrictions will not be reimposed.

Employee's Mental Health

The guest receives much of the focus in the hospitality industry, but a positive customer experience is dependent on the personnel — and employers must look after their employees so that they can look after others. The need to support restaurant staff's mental health and well-being has been amplified by the pandemic, and it is a practice that will help the sector go even further if it is maintained in the post-pandemic era. This pandemic has increased worry and anxiety among business owners, who are among the most vulnerable. Managers and owners, as well as employees, must address both collective and individual pain. However, it is up to the leadership to send a reassuring message that everyone is working toward the same goal (Thyne & Hitch, 2020). Restaurant A shared that physical exercise helped him to take charge of his mood and well-being.

With so many restaurant owners dealing with a multitude of stress, fear, and other health concerns due to COVID-19, taking care of employees so they can give a good service to the guests is more important now than ever before. Many employees still thrive on the food industry and are committed to providing great service because of the great camaraderie and a caring and effective working area established by the owners and managers. They keep their lines of communication open and regularly point out to employees the resources they have available to them. Constantly reminding their employees that they are truly all in this together will surely help to boost their morale.

Usage of Social Media

The restaurant business is fast thinking to find new methods to serve and reach out to its communities as the world grapples with how to respond to COVID-19. To sustain a constant stream of money, businesses were compelled to rethink present and future advertising and marketing initiatives as a result of the global pandemic. With most of the population staying at home,

businesses should alter their services as much as possible to allow customers to engage with their brand and products from the comfort of their own homes. According to Restaurant A, using social media to increase engagement and establish a strong online brand community when a restaurant is in hibernation is a useful strategy.

Food establishment owners in the Philippines rely on technology like social media and messaging apps as their main channel of communication to keep their ventures afloat during the pandemic. Indeed, social media has been a great place to share updates and information with the community. All respondents agreed that it is important to have a social media strategy in place, especially during times like these as people strive to keep normalcy in their lives amid pandemic restrictions.

In addition, for the restaurant to keep afloat during catastrophes the owner used its savings for it to continue operating, Restaurant A said. Restaurant B said that “the restaurant doesn’t need any bank loan. We would just compensate with the supplier if the restaurant can pay it monthly.” While, Restaurant C had to sell some of their personal property to fund the business and lessen the expenses. And Restaurant D had to use its savings, liquidate assets, and took a financial loan from DTI. “DTI offered a loan that could be paid starting next year (2021),” restaurant D said. Lastly, all these restaurants thought that the IATF made business operation hard during pandemic. But restaurants have no choice but to follow. Because failure to comply and caught violating the protocols will be punished to closure of the business.

The researchers identified that the respondents were able to come up with plans and strategies if such cataclysm ever reoccurred. Restaurant A’s plan was to register the restaurant with all food delivery apps and to keep a very strong social media presence. In Restaurant D, the decision makers are the owners. The restaurant’s resiliency plan is based on what the LGU has given, or what the owners’ actions based on the business seminars they attended under DTI. This includes the facilities and personnel as well as the communication channels.

In terms of services, Restaurants A, B, C and D had to close for a few months because the local government unit also followed the national government on no dine-in services. Restaurant A said, “We used to have a delivery man, but he resigned, now we use third party delivery apps and sometimes the other manager does our delivery”. He also added that they had a skeleton workforce during the pandemic. Restaurant B had a similar experience, but they had to adapt to the IATF protocols. Restaurant C had the same experience, but they assumed that the restaurant’s income is zero because people were not allowed to dine-in.

The fifth theme that arose from the participants’ responses in the study is business resilience. Food manufacturing companies confronted numerous logistical obstacles, particularly now that they are dealing with a global epidemic. Food deterioration could be avoided if a mechanism is in place to ensure that food products reach their final consumers within a certain time frame. But miscommunication has been present between food delivery riders and food establishments just like what Restaurant B experienced with a certain delivery app. Most participants do not solely rely on these food delivery apps because business owners give opportunity to their employees.

With the current situation, most of the restaurant owners are still optimistic that their sales will swing back to profitability in 2021 because projections assume that lockdown restrictions will not be reimposed. While they remain positive, the necessity to help restaurant staff’s mental health and well-being has been amplified by the pandemic. Since a good customer experience all stems from staffs—employers need to take care of their staff. Employees, as well as owners and managers, must address both collective and individual grief.

Businesses were obliged to rethink present and future advertising and marketing initiatives as a result of the global pandemic. It’s a good idea to use social media to boost engagement and establish a strong online brand community. Food establishment owners in the Philippines are relying on technology like social media and messaging apps as their main channel of communication.

Conclusion

The participating restaurant's experiences gave the researchers more insights about the research questions in this study. On the damages to the food establishments brought by cataclysms there were no physical damages reported, however the respondents claimed that the drop in sales were associated to the IATF guidelines that brought fear, uncertainty, and closure to the restaurants. From being temporarily closed the restaurants were uncertain on when to operate again. These has affected the business operations for three months starting March 15, 2020, until May 15, 2020. Restaurants believed that IATF rules ruin the business. But these restaurants have no choice but to follow. Because violating the implemented safety protocols from the IATF and respective LGUs leads to business closure.

When asked about how their business operations before the Taal eruption and COVID-19 pandemic were, all the participating restaurants said that they were hitting their daily target sales or at least close on achieving their target sales. All things considered their sales were doing well. But after the eruption and amid the pandemic, restaurant's sales caused a significant drop. The media, being the prime source of information about the Taal volcanic activity and the novel coronavirus (COVID-19) influenced people to feel terrified to go out. This had affected the businesses including the food restaurants nationwide. All four (4) restaurants from the scope of this study agreed that the mass media played a significant role during these catastrophes. People always listened to the news. Broadcast media show decisions that are not yet accurate. This is regarding the community quarantine the Philippines belongs to for a specific period. Media confused people.

The challenges of the restaurants brought by these cataclysms were also identified by the researchers and they were workforces amidst cataclysms, difficulty in acquiring stocks, restaurants cutting down their stocks, continuous utility expenses amidst cataclysms, maintaining the business operation with its current cashflow, implementing guidelines by the government, and news broadcast by the media to the public. These restaurants believed that fear from the public was brought by some news broadcast to the public without verification and validation. People always believe what the news says about the situation of the Philippines regarding the activity of Taal volcano and the on-going COVID-19 pandemic. Thus, media confused people.

As for their plans and strategies if such cataclysm reoccurs, all four participating restaurants have created their own type of business resiliency plan even before these unprecedented events happened. The restaurant's resiliency plan is based on what the LGU has given, what the DTI and the business seminars the owner has attended. DTI has given a business resiliency plan and continuity plan during a disaster, but these plans and strategy aspects are namely "change control, coordination with the team member risk assessment, critical business expansion, plan activation, internal communication procedure, alternative facility, order of succession and delegation of authority, employee contact list, vendor contact list, basic disaster supplies, plan for the impact of the pandemic and employees and customers." This includes the facilities and personnel.

Regarding business resiliency plan to maintain business operation amidst cataclysms, all claimed that COVID-19 wiped out the businesses significantly. Millions of incomes were loss from the business owners. Some employees have been retrenched and some had to quit for safety reasons during the pandemic. Fortunately, Department of Labor and Employment offered financial assistance to workers under COVID-19 Adjustment Measure Program (CAMP). These workers were able to receive an amount of Php 5, 000.00 financial help. Also, Department of Trade and Industry (DTI) offered loan programs to restaurant owners wherein loan can be paid on the following year (2021). Aside from the financial assistance from the government. Regular customers helped the business to stay afloat. These four restaurants registered the business into different social media platforms and different delivery apps like GrabFood, GrabPH, LalaMove, Food Panda, Mangan, and other third-party deliveries. These delivery apps helped the food restaurant industry to continuously survive the pandemic. These restaurants were thankful enough that this pandemic happened during the wi-fi era with all these delivery apps. Food establishments are relying on technology, social media,

and messaging apps as their main channel of communication. These food restaurants promotes and post updates on Facebook, Instagram, and group chats. Through the power of social media, the businesses were able to reach customers and helped them afloat during this uncertainty. But all these were part of the Businesses Resiliency Plan and Continuity Plan or Hands-On Management Plan for some, these restaurants created. As shared by the aspects included are namely change control; coordination with the team member risk assessment; critical business expansion; plan activation; internal communication procedure; alternative facility; order of successions and delegation of authority; employee contact list; vendor contact list; basic disaster supplies; plan for the impact of the pandemic and employees and customers.

In closing, the manager of restaurant D said that all these (cataclysms) would happen eventually. That everyone must face the reality that it will happen. So, everyone must prepare that business will close until everything is stable. But what we fear is the loss of our source of income. So business owners must think of an alternative way regarding employment and ways to avoid permanent closure and one must not be afraid of these crises. Everyone should always remember that each of each one is in a rat race. "Someone is better than us." "Someone is always ready to replace us". Each one must not be complacent, the job a person is doing right now is not the same job he will be doing in the future. That is why one must think of alternatives because every person's job is not for lifetime.

Recommendations

Researchers. Systems are the collective means in which employees in an organization carry out their tasks. The issues that the organization has faced in the past are referred to as obstacles or subjects. A thematic approach was used to evaluate and interpret the questions about business resilience in the selected food restaurants from Ayala Malls Solenad and Tagaytay.

1. Prepare a budget plan on how you want your money to be spent.
2. (2A) Use highly visual reports to highlight problem areas and demonstrate progress.
(2B) Create a solid disaster communication plan.
3. Determine the contextual characteristics and mechanisms that are consistently connected to effective and cost-effective public research engagement.
4. Consider the impact of a specific event, the development of a new theory or evidence, and/or other recent occurrences.
5. Adapt swiftly to disturbances for businesses to be resilient and keep operations running, while they preserving people, assets, and brand equity.

Business Owners. By conducting and analyzing the experiences of respective business manager and business owner through online interview, valuable information was obtained about the production process before and after the cataclysms, Challenges brought by these cataclysms, Plans and strategies if such cataclysm reoccurs, and unfolding the business resiliency plan to maintain business operation amidst cataclysms.

1. Make a budget for everything to avoid misunderstandings and keep track of spending. Budgeting will show not just what assets and obligations a person has, but also what the revenue-generating and cash-repayment priorities should be.
2. (2A) Create crisis management plans because during and after a crisis, they in maintaining excellent reputation with customers, competitors, and industry.
(2B) Prepare a plan to change and reconfigure the company at each stage of the crisis. If the problem is temporary, cost-cutting and other variable expenses like marketing, new hires, and travel might be able to help company and personnel survive.
3. Examine management style once more. Workers are quitting their employment for a variety of reasons, one of which is the terrible management style of their employers. Employees who have no purpose or desire to continue at their current job can easily become disgruntled as a result of poor management practices.

4. Prepare a plan to change and reconfigure the company at each stage of the crisis. If the problem is just temporary, cost-cutting and other variable expenses like marketing, new hires, and travel might be able to help the company and personal survive through it.
5. Adapt the plan in real time. Companies cannot keep up with the rapid pace of change if they want to keep working on their annual strategic planning.

University. A contingency plan's aim is to serve business administration students and under the curriculum in restoring to pre-crisis normal activities. Small firms with proper crisis plan survive and recover far better from crisis events than firms without a crisis plan. SME firms without a formal crisis plan suffer from weaker market positions and fewer resources.

1. Be prepared and cautious to minimize damages. With proper planning and study about resiliency, a potential financial disaster can be reduced to a temporary inconvenience.
2. (2A) Provide guidance as well as maps and other public information materials to help the public and government better prepare for volcanic eruptions, although there is little that can be done to avoid a volcanic eruption, being prepared can greatly lessen the hazards to the university.
(2B) Think through judgments rather than react quickly. Universities can organize a task group comprising diverse constituencies at the institution to acquire a pulse on various problems and possible hazards to make the best-informed judgments. This will prohibit colleges from breaking policy pronouncements.
3. Get actual business and industry insights, build workplace cultural knowledge, and improve important job skills such as good leadership and communication for students who have the chance to explore outside of the classroom. Setbacks and "failure" may often be the catalyst for future success if lessons are learned.
4. Make better decisions among competing priorities and chart a course for a more sustainable future. A focus on strategy may help institutions operate more efficiently.
5. Practice and continue accountability, fairness, openness, assurance, leadership, and stakeholder management are all aspects of corporate governance, and corporate resilience is an integral part of them.

Readers. Moreover, a business with an effective crisis management plan is better able to achieve the following: Minimize exerted influence on the company. Maintain a positive reputation in the market Brand protection. Minimize the impact brought by such a crisis. Minimize legal liability while ensuring that all actions are under laws and regulations.

1. Take advantage of government programs, the government offers loans and new business plans for local businesses to take and absorb for them to not to have any financial problems.
2. (2A) Participate in crisis management plan will benefit from this advice. This might include the HR department, the public relations department, the business development department, and any other departments you believe should be engaged.
(2B) Make a communication strategy for your clients, partners, suppliers, investors, and other stakeholders. Keep them up to date on any modifications to your company's policies, as well as any new ways you could be using or serving at this time.
3. Preserve fresh fruit which is the major purpose of inventory management. Everyone wants to turn your fresh food into stackable items as rapidly as feasible.
4. Create contingency plans for both the best and worst-case scenarios. Include timeframes in your analysis that assess the effects of a three-month, six-month, or one-year pandemic.
5. Rely on a strong online ordering presence, digital reward programs, and effective customer-relationship management for restaurants to stay afloat throughout this crisis, as consumer digital involvement has skyrocketed.

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A MIXED METHOD STUDY ON THE IMPACT OF WORK SCHOLARSHIP PROGRAM ON VALUES AND WORK ETHICS OF COLLEGE STUDENTS

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Abstract

The purpose of this study was to get information with regards to the impact of Work Scholarship Program (WSP) on values and work ethics of college students. The study employed a mixed-method research design which is a procedure for collecting, analyzing, and “mixing” both quantitative and qualitative research methods in a single study. From the interviews and from the result of data gathering, the researchers found out that the work scholarship program has a high or positive impact to the values and work ethics of the work scholars. It was recommended that proper orientation on the work scholarship program should be conducted to all students especially to new students so that they can be prepared for the challenges and problems they might encounter in their place of work.

Keywords: *work scholarship program, values, ethics*

There is a saying that learning does not stop with the four corners of the classroom. There are certain knowledge or skills that a person can only attain through experiences and not from theoretical knowledge or by the book. There are hard skills (e.g., marketing or communication skills) and soft skills (e.g., ability to collaborate or lead) that can only be obtained through exposure in a workplace. With that being said, there are schools or universities that offer work scholarship programs. These work scholar's programs allow students a glimpse of the real-life work environment. It is an educational course that combines the curriculum of the school or university with the workplace to create a whole new learning atmosphere. Work-based learning deliberately merges theory with practice and acknowledges the intersection of explicit and tacit forms of knowing (Raelin, 2017). Providing a smooth school-to-work transition for the students can also help them adjust and adapt to the new environment much easier. By gaining experience, they can use this in the future to enhance their employability academically and professionally. Work-based learning strategies assist students to develop competencies such as good work attitudes and other employable skills by providing career awareness, career exploration opportunities, and career planning exercises (Hamilton, 2018).

Each person has his/her own set of values. Courage, honesty, friendliness, wittiness, rationality in judgment, mutually beneficial friendship, and the quest of knowledge and truth were among the basic virtues that Aristotle felt an individual should possess (Kropp, 2015). The researchers have built their lives on key beliefs, and it is on this foundation that they make their decisions. People's values have a big influence on their attitudes and behaviors (Lilach et al 2017). According to Mashlah (2016), values do not appear out of nowhere; they must be reflected in cognitive perception. Values matter, especially to the people or things around them. Most things around them are influenced by a person's values; relationships, behavior, decisions, and personal identity are all influenced by a person's values (Kropp, 2015). However, people's values tend to change over time (MentalHealth, 2021). People mature and are exposed to life events, and their values can shift as they have children, a family, a solid career, and so on. It is also often held that one's upbringing, culture, and tradition have the greatest impact on one's worth, but what about exposure to work scholar programs?

On the other hand, does work scholar programs affect the work ethics of the college students? Work ethics is the attitude that a person possesses towards his or her work (Schofield, 2021). Work ethics can be defined as knowing or doing what is legally correct or incorrect in the job. The moral principles that guide a person's actions are known as ethics (Parveen, 2017). When someone exhibits a strong work ethic, they can gain others' respect. People will want to be associated with someone who has a stellar reputation. Workers with a solid work ethic should be considered for better jobs, increased responsibilities, and eventually promotion (Rajendranagar, 2020). By that, this could lead an individual to further opportunities and career advancements. On the other hand, if a person has a poor work ethic, he/she might have difficulty with productivity at work, or even lose the job. In today's job market, it is very competitive. If the employee has a bad work ethic, the employer might not think twice about looking for someone else rightful. Workers who do not have a good work ethic may be providing insufficient value for the wage they are paid, and therefore should not be promoted or placed in positions of more responsibility (Rajendranagar, 2020). Above all else, values and work ethics may vary from person to person.

Filipino teenagers are motivated to complete their education even if their parents or families are unable to financially support them. They go to school while working to meet their needs for school obligations and tuition payments. It is commendable when we learn that a teenager completes high school with supporting themselves by working after school. Filipino teenagers are admired for their diligence and hard work. Being a Filipino teenage working student is not easy, but with the help of the family, the student can manage to work and attend school (<https://lookupgrade.com/en/blog/english-life-of-filipino-teenager-as-working-student/>).

Various studies have been made to assess students who work while studying. According to Muluk (2017), working for more than 15 hours a week has a negative impact on academic performance. According to this study, time restrictions not only cause students to obtain poorer marks and finish fewer school assignments, but they also have an impact on their physical and mental well-being (including personal values). Due to the amount of energy and time spent at labor, students would be distracted from their studies. Working 20 hours per week or more has no good effect on students' work ethics, according to Vickers et al (2018), and hence increases the likelihood of students dropping out of tertiary study. Additionally, Nazri (2017) said that students who work while studying have advantages and disadvantages to consider, and they must ensure that their physical and mental health are strong chevaliers. Numerous benefits that are gained through Work Scholarship Programs (WSP). Conversely, for college students, the strongest disadvantage for them is how to manage their time handling double responsibilities. This study may provide insights and better understanding for future researchers, educators, etc. whether the continuation of implementing such programs are beneficial especially for the college students at Adventist University of the Philippines (AUP). In the past, there has been no study conducted exploring whether the work scholarship programs have positive or negative bearings on the values and work ethics on the college students at AUP. Thus, there is a need to conduct this study and revisit the WSP of the University based on the results of this study. Moreover, the researchers would like to explore whether work scholar programs have a positive or negative bearing on the values and work ethics of the college students at AUP.

Statement of the Problem

The study was focused on the impacts of Work Scholarship Program (WSP) on values and work ethics of college students at Adventist University of the Philippines (AUP). It specifically answered the following questions:

1. What are the values gained through WSP by the work scholars in a faith-based university?
2. How do work scholars assess their work ethics?
3. Is there a significant difference in the values and work ethics of the work scholars if grouped according to:
 - a. Sex
 - b. Year Level

The research is guided by the following hypotheses:

1. Work Scholarship Program has no impact on the values and work ethics of the work scholars.
2. There is no significant difference in the values and work ethics of the work scholars if grouped according to:
 - a. Sex
 - b. Year

The study focuses on explaining the impact of work education program on values and work ethics of work scholars at Adventist University of the Philippines (AUP), Silang, Cavite. Moreover, the result of this study is significant to teachers and professors, work scholars, future researchers, and AUP. The study is limited to the impacts of work scholarship program on values and work ethics of work scholars in AUP. A mixed method was used to gather relevant data. The data collection was conducted with 162 college work scholars in AUP that were currently enrolled.

No sampling design was used since the researchers used all the target population. All the data and relevant information were gathered through survey questionnaires given in google form or hard copy. For the interview the researcher selected work scholars who have at least four semesters of work experience specifically from the following departments: food service, water station, public security and safety, dormitory, and university store. These essential service departments were chosen because the work scholars have an opportunity to interact with different individuals.

Each respondent was given the same questionnaire and a series of questions to provide their answers. By their strategy, the researchers were able to determine the impacts of work education program on values and ethics of college students. Also studied were WSP, Work Education Program in Adventist institutions, values such as adaptability, conflict resolution, creativity, good attitude, friendship, integrity, leadership, personal growth, self-discipline, and well-being, and how they are formed, and Work Ethics such as productivity, diligence, reliability, responsibility, accountability, and work-life balance are some examples. This research is anchored on Shalom Schwartz theory of basic values and Bandura's social learning theory as well as the following research paradigm.

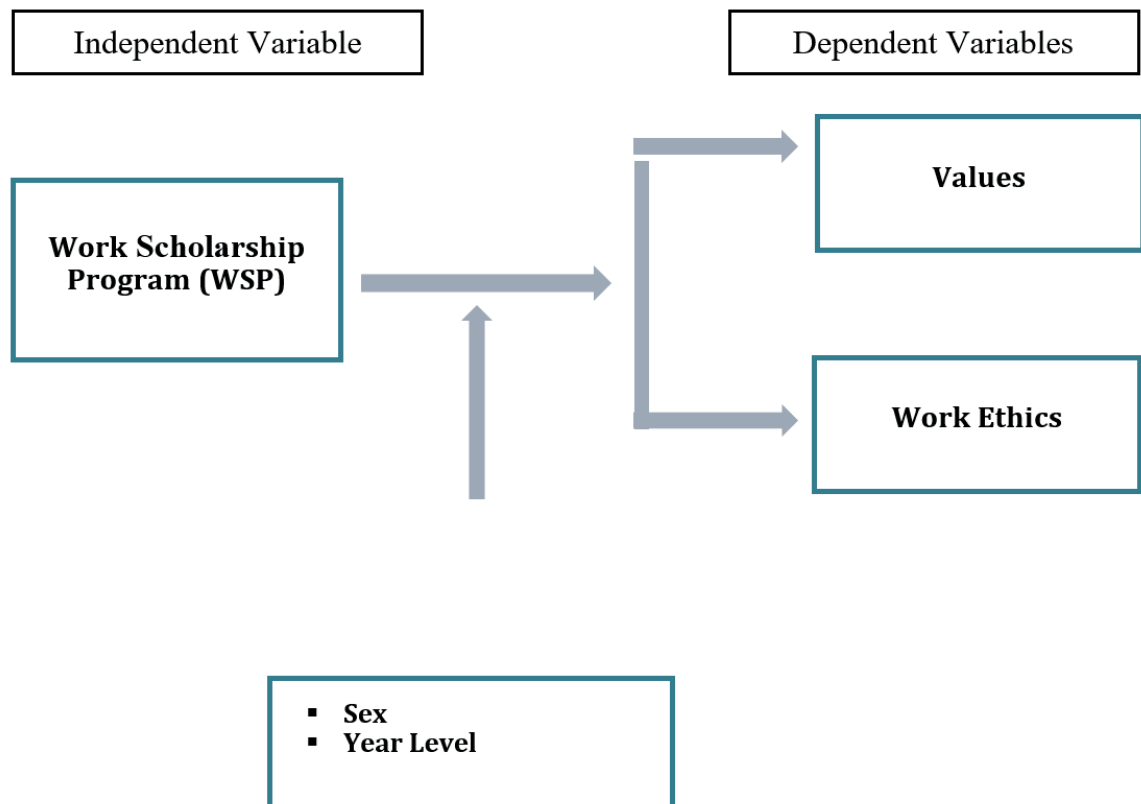


Figure 1. *The research paradigm reflects the Impact of Work Scholarship Program on the Values and Work Ethics of Working Scholars.*

Methodology

The methodology discusses the research design, population and sampling techniques, instrumentation, data gathering process, informed consent and voluntary participation, and the analysis of data.

Research Design. The study employed a mixed-method research design. A mixed method research design is a procedure for collecting, analyzing, and “mixing” both quantitative and qualitative research and methods in a single study to understand a research problem. It is still a qualitative and quantitative research method as it aimed to get in-depth information with regards to the impacts of WSP on the values and work ethics of work scholars. By that, it is more appropriate and would be supported with relevant information with regards to the study. A descriptive and statistical research approach was also used in formulation by which it helps the researchers in describing data and characteristics of the population being studied. It is based on the data used from the sample which represents the total population, wherein the recording analysis and interpretation of data were derived. Figure 2 shows the flow of the mixed method research design.

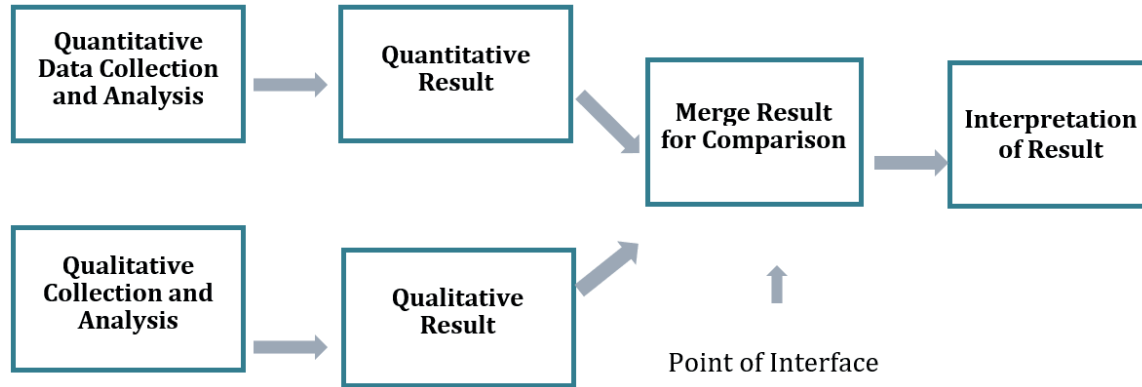


Figure 2. Shows the flow of the mixed method research design.

Population of the Study.

The population of this study is mainly focused on all 162 working scholars of a faith-based university where this study was conducted and has undergone the Work Scholarship Program.

Respondent's Profile

The researchers describe the respondents of the study according to their Sex, Program / College, Department / Work Area, Year Level, Number of Semester in the WEP.

Distribution of Respondents by Sex

Table 1 presents the distribution of the respondents by sex. Included in the table were the number of questionnaires distributed/retrieved, and percentage of questionnaires returned. Among the 167 respondents, 37.7% were female, while 59.3% were male. c

Table 1

Distribution of Respondents According to Sex

Sex	Distributed Questionnaires	Retrieved Questionnaires	Percent
Male	67	63	37.7%
Female	100	99	59.3
Total	167	162	97%

Distribution of Respondents by Program/College

Out of 167 of the 162 respondents have provide their program or college. From this, 0.5% or 1 were from AETME, 0.6% or 1 were from BAE, 0.6% or 1 were from BAH, 2.5% or 4 were from BAP, 11.1 % or 18 were from BEE, 3.7% or 6 BETE, 0.6% or 1 were from BLIS, 5% or 9 were from BME 1.2% or 2 were from BMME, 0.6% or 1 were from BSA, 5.6% or 9 were from BSAT 2.5% or 4 were from BSB, 3.1% or 5 were from BSBA, 13.6% or 22 were from BSC 1.2 % or 2 were from BSCT, 1.2% or 2 were from BSE, 8.6% or 14 BSEE, 1.19% or 3 were from BSET, 3.1% or 5 were from BSIT, 2.5% or 4 were from BSLIS, 0.6% or 1 were from BSM, 1% or 0.6 were from BSMLS, 1% or 0.6 were from BSN, 0.6% or 1 were from BSND 9.3% or 15. were from BSNE, 0.6% or 1 were from BSOA 8% or 13 were from BSP 2.5% or 4 were from BST, 0.6% or 1 were from BSTE 0.6% or 1 were from BTFA 1.2% or 2 were from BTFAC 0.6% or 1 were from BTFSV 1.2% or 2.

Program/College

Out of 167 of the 162 respondents who have provided their Program/College.

Table 2
Distribution of Respondents by Program/College.

	Frequency	Percent	Valid Percent	Cumulative Percent
AET	1	.6	.6	.6
AETME	1	.6	.6	1.2
BAE	1	.6	.6	1.9
BAH	4	2.5	2.5	4.3
BAP	5	3.1	3.1	7.4
BAT	18	11.1	11.1	18.5
BEE	6	3.7	3.7	22.2
BETE	1	.6	.6	22.8
BLIS	5	3.1	3.1	25.9
BME	2	1.2	1.2	27.2
BMME	1	.6	.6	27.8
BSA	9	5.6	5.6	33.3
BSAT	4	2.5	2.5	35.8
BSB	5	3.1	3.1	38.9
BSBA	22	13.6	13.6	52.5
BSC	2	1.2	1.2	53.7
BSCT	2	1.2	1.2	54.9
BSE	14	8.6	8.6	63.6
BSEE	3	1.9	1.9	65.4
BSET	5	3.1	3.1	68.5
BSIT	4	2.5	2.5	71.0
BSLIS	4	2.5	2.5	73.5
BSM	1	.6	.6	74.1
BSMLS	1	.6	.6	74.7
BSN	1	.6	.6	75.3
BSND	15	9.3	9.3	84.6
BSNE	1	.6	.6	85.2
BSOA	13	8.0	8.0	93.2
BSP	4	2.5	2.5	95.7
BST	1	.6	.6	96.3
BSTE	1	.6	.6	96.9
BTFA	2	1.2	1.2	98.1
BTFAC	1	.6	.6	98.8
BTFAV	2	1.2	1.2	100.0
Total	162	100.0	100.0	

Distribution of Respondents by Department/ Work Area

Out of 162 respondents who give their Department/Work Area. Of this number, 4 or 2.5% working scholar in Acacia, 1 or .6% working scholar in Advancement.1 or .6% working scholar Alumni,12 or 7.4% working scholar in Apartment,1 or .6% working scholar in Biology, 1 or .6% working scholar in CAH, 2or 1.2% working scholar in Cattleya, 7 or 4.3or 1% working scholar in

Cadena de Amor, 2 or 1.2% working scholar in Chemistry, 4 or 2.5% working scholar in Clinic, 6 or 1.2% working scholar in COD, 2 or 1.2% working scholar in COM, 2 or 1.2% working scholar in Copy Center, 3 or 2.9% working scholar in Dama, 3 or 1.9% working scholar in Eastern hall, 4 or 2.5% working scholar in ERM, 6 or 3.7% working scholar in Farm, 3 or 3.9% working scholar in Food Factory, 13 or 8.0% working scholar in Food Service, 6 or 3.7 % working scholar Grounds, 4 or 2.5 % working scholar in Ilang-ilang, 2 or 1.2 % working scholar in Laundry, 2 or 1.2% working scholar in Library, 3 or 1.9% working scholar in Mahogany, 4 or 2.5% Maintenance, 3 or 1.9% working scholar in MED, 2 or 1.2% working scholar in Molave, 1 or .6% working scholar Music, 3 or .6% working scholar in Music, 3 or 1.9% working scholar in PIC, 19 or 11.7% working scholar in Public Safety, 1 or .6% working scholar in Recreation Center, 3 or 1.9% working scholar in Residences, 2 or 1.2% working scholar in Sampaguita, 1 or .6% working scholar in Spiritual Development, 15 or 9.3% working scholar in Store, 2 or 1.2 % working scholar in STR and 3 or 1.9 % working scholar in Waling- Waling, 4 or 2.5 %.

Table 3

Distribution of Respondents by Department/ Work Area

	Frequency	Percent	Valid Percent	Cumulative Percent
Academy	3	1.9	1.9	1.9
Acctng	2	1.2	1.2	3.1
Acicia	4	2.5	2.5	5.6
Adv	1	.6	.6	6.2
Alumni	1	.6	.6	6.8
Apartmnt	12	7.4	7.4	14.2
Bio	1	.6	.6	14.8
CAH	1	.6	.6	15.4
Cattleya	2	1.2	1.2	16.7
CDAH	7	4.3	4.3	21.0
CHEM	2	1.2	1.2	22.2
CLINIC	4	2.5	2.5	24.7
COD	6	3.7	3.7	28.4
COM	2	1.2	1.2	29.6
COPY C	2	1.2	1.2	30.9
DAMA	3	1.9	1.9	32.7
EAST	3	1.9	1.9	34.6
ERM	4	2.5	2.5	37.0
Farm	6	3.7	3.7	40.7
FFAC	3	1.9	1.9	42.6
FS	13	8.0	8.0	50.6
Grounds	6	3.7	3.7	54.3
Ilang	4	2.5	2.5	56.8
LAUN	2	1.2	1.2	58.0
LIB	2	1.2	1.2	59.3
MAHO	3	1.9	1.9	61.1
MAINT	4	2.5	2.5	63.6
MED	3	1.9	1.9	65.4

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MOLAVE	2	1.2	1.2	66.7
MUSIC	1	.6	.6	67.3
PIC	3	1.9	1.9	69.1
PSD	19	11.7	11.7	80.9
RECRE	1	.6	.6	81.5
RESIDE	3	1.9	1.9	83.3
SAMPA	2	1.2	1.2	84.6
SD	1	.6	.6	85.2
STORE	15	9.3	9.3	94.4
STR	2	1.2	1.2	95.7
WALING	3	1.9	1.9	97.5
WST	4	2.5	2.5	100.0
Total	162	100.0	100.0	

Year Level

The data revealed that 28% or 45 of the respondents were in the 1st year level, while 44% or 27 respondents were in the 2nd year level, 34% or 21 respondents were in the 3rd year level and 24% or 39 respondents were in the 4th year level.

Table 4.

Distribution of Respondents by Year Level

Year Level	Frequency	Percent	Valid Percent	Cumulative Percent
First year	45	27.8	27.8	27.8
Second year	44	27.2	27.2	54.9
Third year	34	21.0	21.0	75.9
Fourth year	39	24.1	24.1	100.0
Total	162	100.0	100.0	

Number of Semesters in the Work Scholarship Program

Table 5 shows the distribution of respondents according to the number of semesters under the WSP. 32 or 19.8% of the respondents have been under the WSP for five (5) semesters already; 22 or 13.6% for four (4) semesters; 22 or 13.6% for two (2) semesters. It was amazing to note that 34 or 21% have been in the work scholarship program for more than 12 semesters already.

Table 5

Distribution of Respondents According Number of Semester in the WSP

Productivity, diligence, reliability, responsibility, accountability, and work-life balance are some examples of prevalent work ethics.

NSW	Frequency	Percent	Valid Percent	Cumulative Percent
1	4	2.5	2.5	2.5
2	22	13.6	13.6	16.0
3	11	6.8	6.8	22.8
4	22	13.6	13.6	36.4
5	32	19.8	19.8	56.2
6	12	7.4	7.4	63.6

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7	4	2.5	2.5	66.0
8	6	3.7	3.7	69.8
9	2	1.2	1.2	71.0
10	9	5.6	5.6	76.5
11	4	2.5	2.5	79.0
12	6	3.7	3.7	82.7
13	6	3.7	3.7	86.4
14	10	6.2	6.2	92.6
15	3	1.9	1.9	94.4
16	6	3.7	3.7	98.1
18	1	.6	.6	98.8
20	2	1.2	1.2	100.0
Total	162	100.0	100.0	

Instrumentation

The study utilized a three-part questionnaire such as Part 1 - Demographic Profile, Part 2 - Values Questionnaire, and Part 3 - Work Ethics Questionnaire.

Part 1 is the demographic profile questionnaire (DPQ) which is wanting to provide the sex, program/college, department/work area, and year level of the working scholars.

Part 2 is the Values Questionnaires, researcher-constructed based on the review of literature. The series of questions were to know the impact of work education program to their values.

Part 3 is the Work Ethics Questionnaires, researcher-constructed based on the review of literature. The series of questions were to know the impact of work education program on their work ethics.

Table 6 shows the scoring system used to measure values and work ethics.

Table 6

Scoring System to Measure Values and Work Ethics.

Scale	Scale Response	Mean Interval	Verbal Interpretation
15	Strongly Agree	4.50-5.00	Very High
4	Agree	3.50-4.49	High
3	Moderately Agree	2.50-3.49	Moderate
2	Disagree	1.50-2.49	Low
1	Strongly Disagree	1.00-1.49	Very Low

Data Gathering Procedures

Primary data the researchers used came from the survey questionnaires given through google form or hard copy and for the face to face interview the researcher selected work scholars who had at least four semesters of work experience specifically from the following departments: food service, water station, public security and safety, dormitory, and university store. These essential service departments were chosen because the work scholars have an opportunity to interact with different individuals. Secondary data was based upon original pieces or written or printed material which conveys industry information evidence such as books, journals, and related articles.

The primary data gathered, collected, and interpreted in the study were taken from the responses provided by the respondents through survey questionnaire. These were significantly supplemented by a structured interview from the respondents to enhance the information and knowledge of the researchers about the study.

The survey questionnaire and structured interview was first approved by the adviser before validation of five experts and five laymen to ensure comprehensibility. After the validation, the survey questionnaire and structured interview were distributed to the respondents. The survey questionnaire, structured interview, and validation sheet are shown in Appendix 3-1, Appendix 3-2, and Appendix 3-3 respectively.

With the assistance of the thesis adviser, the list of work scholars was made available and provided by the work scholarship program coordinator. The researchers personally distributed them through google form and retrieved the instruments from the work scholars. The structured interview was conducted face-to-face. As soon as the data were collected they were encoded and submitted to the statistician for analysis and initial interpretation.

Ethical Concerns

Informed Consent and Voluntary Participation were essential. Ethical issues were deliberated upon the conduct of research specifically in the data gathering process. To guarantee quality and integrity of the research, the researchers entreated the participation of the target respondents of the study and the context from where it was supposed to be directed. Respondents were provided with instructions, conduct of the study, the objectives, the future contribution of the research work and its independence and partiality. Respondents were also informed that the participation is voluntary, and their consent was requested with confidentiality and anonymity, which is strongly implemented and guaranteed.

Participants were able to finish the survey questionnaire in less than twenty minutes. For the interview, less than twenty minutes as well. Again, confidentiality was strictly enforced as well as the retrieval, encoding, and keeping of instruments.

The proposal was submitted to the Ethics Review Board of AUP to ensure the ethical conduct of this research.

Analysis of Data

Qualitative data were treated statistically using SPSS version 23. In the descriptive statistics, frequencies and percentages were employed to the demographic profile data. To describe the values, and work ethics of the working scholars mean, and standard deviation were used.

T-test and ANOVA were used to compare the values and work ethics of the work scholars considering their sex and year level. Only these two moderating variables were considered for the T-test due to the fact that the range of the other variables were complex.

Results and Discussion

The findings and review of the study based on the data gathered to evaluate the impact of work education program on values and work ethics of work scholars are presented. Significant findings, interpretation, and discussion are presented in accordance with the research questions.

The Values Gained through WSP by the Work Scholars in a Faith-based University

The values gained through WSP by the work scholars in terms of the following ten dimensions are presented in Table 7. The descriptive results based on the overall mean of 4.1957 (SD=.38470) revealed a grand scale response of Agree which is interpreted as high. This implies that the respondents gained different positive values in work education program.

Personal Growth

As shown in Table 7, Personal Growth got the highest mean of 4.51 (SD=0.613) with a verbal interpretation of Very High. The statement, "I am interested to learn new things/skills that would help me grow" in which according to Freitas et al. (2016), the process of change intentionally developed by individuals are recognized as personal growth. Simply stated, personal growth is

a desire to become a better version of themselves. This implied that personal growth as a value among the respondents is Very High and that it is one of the values experienced and felt by most of the respondents in this study. Personal growth, according to Jackson (2021), is a process of learning about oneself and pushing oneself to reach their maximum potential. It means asking themselves daily who they are becoming and how they want to get there. To achieve personal goals, one needs to adopt new habits and interests, hone new talents, and implement new techniques. A growth mindset starts with a belief in personal development, which includes a desire to learn new things or abilities. Having a personal growth value is advantageous since it allows a person to learn new things. As a result, work scholars should participate in activities that will help them grow as individuals and become the greatest people they can be as students.

Integrity

The table shows the scores in integrity which states, “*I am honest with my work and/or the people around me.*” with the mean of 4.32 (SD=.627) also supports the definition of in the study of Huberts (2018), Integrity is in line with the meanings of the Latin *integras*: intact, whole, harmony, with integrity as “wholeness” or completeness, as consistency and coherence of principles and values. There are numerous reasons why the integrity value is strongly important. Integrity could be defined by saying it is the type of person they are in their inner self when no one else is looking (Alicia, 2021). Having integrity is vital to a student especially during quizzes or exams because it defines them whether they are really working hard or just playing around. Students who cheat should not be tolerated and be punished.

Table 7
Descriptive Results in terms of Values

No.	Item	M	SD	SR	VI
8	Personal Growth: I am interested to learn new things/skills that would help me grow.	4.51	.627	Strongly Agree	Very High
6	Integrity: I am honest with my work and/or the people around me.	4.32	.627	Agree	High
5	Friendship: I can easily get along with the people around me.	4.29	.637	Agree	High
7	Leadership: I prefer working on teams rather than being alone.	4.22	.728	Agree	High
4	Positive Attitude: I do my best on every duty whether work/school related.	4.22	.685	Agree	High
9	Self-Discipline: I can be more punctual (e.g. waking up early in the morning, not being late for class, etc.).	4.21	.673	Agree	High
10	Well-being: I am satisfied with myself right now.	4.15	.724	Agree	High
1	Adaptability: I am able to work under pressure even in a stressful situation.	4.06	.750	Agree	High
3	Creativity: I am able to express myself more. (e.g. the way you dress, art, playing piano, doing sports, etc.)	4.05	.721	Agree	High
2	Conflict Resolution: I am able to think outside of the box and resolve problems without the help of anybody.	3.94	.675	Agree	High
Overall Mean		4.195	.38470	Agree	High

Note: Very High= 4.50-5.00; High= 3.50-4.49; Moderate= 2.50-3.49; Low= 1.50-2.49; Very Low=1.00-1.49 *RECODE

Friendship

“I can easily get along with people around me” with mean 4.29 (SD=.637) supports the statement of Yu et al. (2021), establishing friendship is important. It shows that the person can easily get along with the people around them. Friendships are defined as consensual, reciprocal, egalitarian partnerships in which both partners recognize the relationship and regard each other as equals. Friendship is often defined by companionship, shared history, and mutual affection (Rubin, 2018). If a person gains this value, they will be able to connect and relate to others, will be easy to work with, and will be a valuable member of the team. As a student, having a friend or group of pals motivates them because they have a support system. If a student gets along well with others, it will be easier for them to acquire their trust.

Leadership

The table shows the results of the mean 4.22 (SD =.728) on Leadership which states “I prefer working on teams rather than being alone.” in which Strait (2020) defined leadership as a person who has ambition, skills, personality, and other qualities to motivate and influence a group of people to reach a common goal. It is not easy to be a great leader; a leader must have the confidence to make difficult choices, even if they could potentially hurt their followers but are necessary in order to achieve the set goals. However, not all leaders are adored by their followers. There would always be someone that is unhappy with their leader, disagrees with their decision or even their style of leading the organization and that is the true test for leaders to come into the picture. Each student should experience how it feels to be a leader because it will train him/her how to develop positive attitudes when faced with pressures of multi-tasking.

Positive Attitude

“I do my best on every duty whether work/school related.” is an optimistic line from a student. Everything an individual does is affected by his/her emotions and feelings. When an individual feels motivated, he/she performs well in school or at work and is productive. In contrast, if the individual feels lethargic or unmotivated, the person would not be able to progress on something. By saying that, this is the same with having a positive attitude. An individual that constantly think of negative things can acquire negative pictures in his/her head which results to feeling worried, fear, anxiety, etc. On the other hand, if the person is optimistic, the focus is on what can happen correctly. Even if the optimistic people fail at something, they would see it as a learning ground and see the bright side of the picture. As working students, takes much patience and hard work to reach their dreams. And having a positive attitude makes it easier for them to conquer every challenge they face. Persons who would like to change something or if they want to achieve better results in life, they simply alter their mindset (Lim, 2019).

Self-Discipline

The statement “I am able to be more punctual” (e.g., waking up early in the morning, not being late for class, etc.) showing a mean of 4.21 SD (0.673) supports the definition of Moneva, 2020, stating that self-discipline is one of the most important values that an individual should possess because it is essential to every area in life. Building self-discipline does not imply being tough on oneself or leading a restricted life, contrary to the popular opinion. Developing this ability entails using common sense, setting goals, and thinking before acting. Self-discipline is a practice, a habit, and a talent that allows each individual to comprehend the most significant aspects in their life. It is vital for a student to develop self-discipline as young as they are because discipline will determine a person’s destiny and shape his/her future.

Well-being

“I am satisfied with myself right now” statement shows a mean result of 4.15 ($SD=.0.724$) and supports the definition of Ohja et al. (2017), subjective well-being researchers believe that one of the most important components of a successful existence is that the individual enjoys his/her life. Although achieving the satisfaction in life may be difficult to attain to various people, as the theory of Maslow’s Hierarchy of Needs illustrates, physiological (food, water, etc.), safety and security, love and belongingness, esteem, self-actualization should be attained beforehand. Above all else, having a safe and great well-being is what every living person desires. A person’s greatest force of accomplishment may be his/her well-being, and nothing can be accomplished unless an individual is physically sound. Well-being is what gives happiness and life fulfillment. Their well-being as students really matters because being comfortable, healthy, or happy would make them even more motivated in achieving their dreams in life.

Adaptability

The table shows the highest scores in adaptability which states, “I am able to work under pressure even in a stressful situation.” with the mean of 4.06 ($SD=.750$) this result confirms that the study of Martin (2017), the ability to change the nature, level, and degree of behavior or activity in order to successfully traverse changing, novel, changeable, and uncertain situations is referred to as adaptability. Adaptability is a good thing; it encourages growth both professionally and personally to the person under pressure. Since the persons are not used to the environment around them, they are encouraged to adapt and use their own selves to reshape themselves and make them fit to that environment. Therefore, students should be encouraged to adapt new skills and behaviors in response to different situations.

Creativity

The mean 4.05($SD=.721$) under Creativity states that, “I am able to express myself more” (e.g. the way you dress, art, playing piano, doing sports, etc.) in which according to Cropley (2017), the term “creativity” is used in three ways: it refers to a set of processes (e.g. creative thinking), a cluster of personal characteristics of people (e.g. the creative personality), and to results (e.g. a creative product). Being creative is a vital value especially in the workplace. It allows persons to think outside of the box, which allows them to be productive, resourceful, and fruitful in the work. Being able to express one’s ideas makes it more possible for a student to gain self-confidence and self-esteem because it allows him or her to think of more options on how to make the work a lot more creative. Accepting their idea also makes them feel included and will make them cooperate and participate without forcing them to do so.

Conflict Resolution

According to the questionnaire is the value of conflict resolution with a mean of 3.94($SD=.675$). Although its verbal interpretation is still high, among the ten values presented in the questionnaire, only a few respondents have answered that they have experienced conflict resolution as one of the values that they experience the most during work programs in college. Specifically, conflict resolution states that “*I am able to think outside of the box and resolve problems without the help of anybody*” which is related to the definition stated by Shonk (2021) as the informal or formal procedure used by two or more parties to reach a peaceful conclusion to a disagreement. In this research, conflict resolution as value is interpreted to be a value that is learned by the respondents during their WSP Program. It is interpreted as a value learned by college students where they can learn and solve their own problems on their own through undergoing WSP. Clearly, this value is the least experienced and felt by the students as they go into their WSP while the greatest value they have learned, experienced, and felt is learning how to develop their personal growth where they are interested in learning things and skills, they know will help improve their learnings and personal growth.

Table 8 presents the additional values gained through the Work Scholarship program.

Table 8

Summary of Themes for RQ1

Research Question	Themes
1. What are the values gained through the Work Scholarship Program by the work scholars in a faith-based university	<ul style="list-style-type: none"> • Better Time Management • Circumstances and Situation • Skills Improvement • Improved Patience • Improved Socializing Skills • Improved Self esteem • Integrity

Interviews were conducted to validate and confirm the answers of the respondents. Themes were generated during the interview.

Time management

All participants responded that the most challenging part of being a working student is balancing work and study time.

“Personally, as a working student balancing my time with studies and work became the challenging aspect during the time. It’s difficult to find time doing work because I also have other requirements to accomplish”. - Monitor

Furthermore, a work scholar of public safety struggled by balancing time and study because of work in the evening and morning, as a student guard. He said,

“My biggest challenges being working student is to balance my time work and studying. Because being student guard is difficult to me, I have duty in the evening also morning I can’t balance my time being a working student”.

A work scholar of Silver Spring also mentioned that his challenges as a working student were his conflict time with his work and class. He responded,

“My challenges being as working student is conflict time scheduled of my class and my subject, I have subject in my Scheduled work hour. It’s so difficult to study and work at the same time.”

Combining school and work, according to Logsdon (2020), is extremely difficult, especially if a person does not know how to effectively manage time. Many college students may find academics as a very stressful experience. Time management can be difficult while managing work and school. Managing time in students’ academic lives is a difficult endeavor, especially when they have other duties competing with their attention, whether they are working to pay for college or returning to school to advance their current position.

On the other hand, a student who works at Food Services department can manage her time well. She stated, *“Despite working at a cafeteria and studying, I can manage my time well”*.

According to Johnson (2018), values influence individuals’ thoughts, attitudes, choices, and decisions. Being responsible means answerable or accountable, as for something within one’s power, control, or management (Smith, 2021).

Circumstances and Situations

Another theme was derived from the interview and the researchers defined it as circumstances and situations. When the respondents were asked how they were able to adjust to the school-to-work transition, most respondents stated that it is not easy to adjust, and they needed friends’ advice to continue working hard for both their school and work. According to Ona, being a working student is not easy but thanks to her friends, she was able to enjoy the struggles of being a working student. She said,

“Being a working student is not easy but I just enjoying it and also I have my friends who are always giving me advice that if I want to be a successful someday, I need to sacrifice now.” A dorm monitor was able to adjust her school-to-work transition. She also had a good relationship with other people around her, and even though WEP is difficult, and some circumstances might come up, she takes it as a challenge so she can improve, and her co-workers were helping her so she can perform her job well. She answered, *“I was able to adjust from the school-to-work transition by having good relationship with the people who honed me during my workdays. Mostly, the monitors in Cadena are the ones telling me what to do and as the one doing the work, I need not to complain because I have to experience how a work is in a real-world setting.”*

Time management is also the key for Public Safety Department and Water Station work scholars for them to do school-to-work transition.

“It’s a matter of time managerial focus on priorities.”

“As a working student I need to manage my time to my work and class.”

With all the comments given by the respondents, the researchers concluded that the transition from school to work is challenging and complex, but that with the support of the surroundings and practicing time management, the difficulty can be acceptable at times. Bandura’s thesis, according to Sabirin (2018), represents the influential link between people and environment in the professional development process.

Skills Improvement

Skills Improvement is one of the themes developed in accordance to the participants’ responses in the interview. The respondents were asked a question regarding the advantages of attending a work scholarship program and many of the respondents have stated that they were able to gather new skills and experiences from working and attending school at the same time.

All participants stated that taking WSP is an advantage for them to apply work because of what they have learned and experienced, that WSP clearly indicates what a real-world working situation is like. It allows them to gain experience applying for jobs, dealing with varied groups of people, molding their character, and enhancing socialization in workplace.

“Being in this program gave me a glimpse of how a real-world working environment looks like. I get to experience applying, working with diverse group of people, and molding my character that is applicable for work.” - Monitor

Additional response, *“To enhance socialization within the workplace and to discover and learn new things.”* - Public Safety

“The benefit of being a part of WSP is that I will learn how to get along with other people, socialize, and build my character, which will help me in professional career.”

The experiences, and new skills they gained will be useful when looking for jobs in the future.

“My experience and skills that I gained while studying is a big advantage in the outside world it’s easy to find work because of my experience” - Water station.

“It will help us to learn new skills and you can use it as experience in applying job in the future.” - Food service

Working students enjoy the challenges, responsibilities, and personal pleasure that come with being a recognized employee. Working from a young age looks great on a CV because it shows maturity, dependability, and goal oriented to potential employers. Work-based learning strategies can help humans not only advance in their current employment, but also change careers and enter new professions (Hamilton, 2018).

Respondents have also stated that the only disadvantage for them is instead of going to sleep, they must think of other tasks they needed to comply in school. Nazri (2017) said that students who are working while studying have a pro and con which they need to make sure they are strong physically and mentally to accept it.

“The only disadvantage I could think of is that instead of me resting after school, I must think of how I can accomplish my work.” - Monitor

Additionally, according to the work scholar of Food Service Department one disadvantage is the lack of financial support. She replied, *“The disadvantages are that you will not be able to complete your study in four years due to a lack of financial support.”*

Extra work can be exhausting, according to Newcastle University (2019). Working while studying has the potential to fatigue students, which could affect their academic performance. This also means that students’ sleep and rest are being compromised, as is the time they should be spending for leisure, for sleep, or extra studying.

Improved Patience

Patience is not a simple virtue to come by; it is a skill that needs to be diligently and consciously worked on every day.

“Some of our boarders in cafeteria have been naughty and do not follow the rules.” - Food Service

Work Scholar of Water station also stated that he needs to have more patience when dealing with customers. He stated, *“My experience working at store is that you need to have patience and understanding to the customer when dealing with their needs and request”*

Patience, along with compassion and simplicity, was considered one of the three greatest treasures by Lao Tzu. Patience, or the ability to remain calm in the face of disappointment, grief, or suffering, is a valuable skill to develop. According to Goldfarb (2018), the virtue is linked to several favorable health outcomes, including the reduction of depression and other unpleasant feelings.

Improved Socializing skill

As a work scholar social skills are the skills, we use to communicate with each other, relating with people and being able to work in large groups naturally develops one’s communication skill

This has been a great advantage to Rick as a student guard mingling with other people has helped him improve his communication skills. He said, *“Socializing with other people, I improved my communication skills by interacting with other people.”*

For career advancement, social skills are required. The tools we use to engage and communicate with others are known as social skills, sometimes known as interpersonal skills. This skill apply to both verbal and nonverbal communication. You must be able to work well with people if you work in a group. You must pay attention to your clients’ concerns and questions if you work with them (Doyle, 2021).

Improved Self-esteem

For public safety he felt shy and lack of self-esteem and confidence to stand in the front of other people. He stated, *“Being shy, self-esteem is low and lack of confidence to stand in front of many people.”*

People with poor self-esteem are less confident in their abilities and may question their decision-making abilities. They may lack motivation to try new activities because they doubt their ability to achieve their objectives. Low self-esteem might make it difficult to form relationships and convey one’s needs. They may also have low self-esteem and believe they are unlovable and unworthy (Cherry, 2021). Other participants stated that they had not faced any obstacles in their

lives, particularly at work. Since they know how to deal with undesirable traits, and one participant said he didn't want to answer because it was too personal.

Integrity

In the study of Huberts (2018), Integrity is in the line with the meanings of Latin *integras*: intact, whole, harmony, with integrity as a wholeness or completeness, as consistency and coherence of principles and values. With this matter, Work Scholar of Food services cited that integrity which is earning trust is the best achievement. She said, "*Integrity, because earning trust is the best achievement.*"

How do Work Scholars Assess their Work Ethics?

The work ethics of the work scholars are further subdivided into eight dimensions namely: Productivity, diligence, reliability, responsivity, accountability, do-it-yourself, traditional work, work-life balance and are presented in Table 6. The descriptive results based on the overall mean of 4.1265 (SD=.63930) revealed a grand scale response of Agree which is interpreted as high. This implies that the respondents gained different positive values in work education program.

Table 9.
Descriptive Results in terms of ethics

No.	Item	M	SD	SR	VI
5	Accountability: I am able to take responsibility with my own actions whether it is right or wrong.	4.52	3.977	Strongly Agree	Very High
6	Do It Yourself: I can work with minimal supervision.	4.22	.659	Agree	High
8	Work-Life Balance: I am able to have time for myself (adequate sleep, proper meal, exercise).	4.15	.692	Agree	High
2	Diligence: I am able to pay attention to details more.	4.11	.630	Agree	High
4	Responsibility: I am able to take ownership of all that falls within the scope of my duties, power, mission, or goals.	4.09	.598	Agree	High
7	Traditional Work: I like to do things my way even if it is time consuming.	4.06	.774	Agree	High
1	Productivity: I am able to finish my work/school tasks before the given deadline.	3.94	.733	Agree	High
3	Reliability: I believe the people around me can depend on me	3.91	.717	Agree	High
Overall Mean		4.1265	.6393	Agree	High

Note: Very High = 4.50-5.00; High = 3.50-4.49; Moderate = 2.50-3.49; Low = 1.50-2.49; Very Low = 1.00-1.49 *RECODE

According to the results of the questionnaire, the work ethic that is perceived by most students during their Work School Program is their accountability which states "*I am able to take responsibility with my own actions whether it is right or wrong.*" Accountability as perceived work ethic by the respondents has garnered a mean of 4.52 (SD=3.977) making it attain a verbal interpretation of "*very high*".

According to Kenton (2021) that accepting responsibility for honest and ethical behavior toward others is referred to as accountability. Furthermore, accepting responsibility for one's own conduct is known as accountability. It suggests a desire to be open about one's performance, enabling others to witness and criticize it. It relates to the statement tagged with accountability in the questionnaire which is the student's ability to take responsibility in their actions and decisions whether it is right or wrong.

Do-it-yourself

The statement “*I can work with minimal supervision*” shows a mean result of 4.22 ($SD=.0.659$) The-Do-It-Yourself or DIY is the act of designing, construction, constructing, and repairing objects rather than buying goods and services. Individuals can produce an output from raw or semi-raw materials. If the persons are able to acquire that value, they are capable of giving importance or appreciation to the maxim that not all things can be obtained easily; rather, the difficulty that the person has experienced in producing from the raw or semi-raw material to the finished product allows them to appreciate the output due to the of the effort that they placed in there. Students must be brave enough to attempt new things and experiment with diverse ideas in order to be creative.

Work-Life Balance

“*I am able to have time for myself*” (adequate sleep, proper meal, exercise.) has a mean result of 4.15 ($SD=.0.692$) which supports the definition of Sakeerthi (2016), work-life balance is the equilibrium between the amount of time and effort somebody devotes to work and that given to other aspects of life. In the present times, dilemmas can be experienced by numerous people in which they have difficulty managing all the competing demands both in work and personal life. Any competing demands of work and family life cause conflict and negatively affect the well-being of workers (Gautam, 2018). Sustaining a supportive and healthy work environment is one of the keys to achieve a work-life balance value and given a decent amount of time for other things like adequate sleep, proper meals, exercise, family, socializing, hobbies, interests, and personal reflection is what work-life balance recommends. To function optimally, it is vital to find a balance between the many roles that one plays. A student frequently wears numerous hats, including partner, worker, friend, classmate, and so on. These functions are frequently at odds, and a student must be good at attending to a number of issues and assessing priorities.

Diligence

“*I am able to pay attention to details more*” has a mean of 4.11 SD ($SD=.0.630$) In simpler terms, a person with a diligence value would see situations or problems and could handle them with caution and care. When the person has a keen mind to pay attention to details, s/he can achieve high-quality work. An example of diligence is when a person who works efficiently and takes care of even the slightest detail. Being diligent in the workplace plays an important role especially if the person works in industries that is a hands-on job. (i.e., handling money as a cashier, doing inventory, etc.). Diligence is a vital component of one’s values, and without it, laziness and lethargic behavior might develop. Because they can focus on both goals, working students are among the most industrious people on the planet. When possible, one might always compliment them. The primary goal of diligence is to evaluate the benefits and constraints of a proposed purchase by looking at all important areas of the past, present, and future (Savovic, 2018).

Responsibility

“*I am able to take ownership of all that falls within the scope of my duties, power, mission or goals*” this statement has a mean of 4.09 ($SD=.0.598$). Responsibility is a widely used term today, and it is generally understood to mean taking responsibility for one’s actions. Responsibility refers to one’s ability to perform assigned duties and obligations satisfactorily and this entails taking care, being accountable and accepting the results of one’s actions, feelings, and utterances (Hawkins, 2019). Responsibility is taking ownership of all that falls within the scope of a person’s role, power, mission, or goals. Responsible students honor their commitments - to others and to themselves. They succeed in school by doing their assignments well and on time.

Traditional Work

“*I like to do things my way even if it is time consuming*” statement shows a mean result of 4.06 ($SD=.0.774$). Traditional jobs are easy to perform and less paying. They are not so interesting. They are mundane and routinely performed. Some of the jobs do not require highly specialized skills. Some students still prefer the traditional way than the modern way because it makes them more comfortable working.

Productivity

The table shows the mean of 3.94 SD (0.733) with a statement “*I am able to finish my work/school tasks before the given deadline.*” which supports the definition of Pekuri, 2016 that Productivity simply means that the person has performed their given tasks resourcefully and before long and by working efficiently, by doing the tasks in a short period of time, a fruitful outcome should be acquired. In general, productivity is often defined as a relationship between output produced by a system and quantities of input factors utilized by the system to produce that output. It means that students should be given tasks for them to value their time and become productive, and if they are productive, they will then become effective.

Reliability

This aspect shows a mean of 3.91 ($SD = .717$) with a statement “*I believe the people around me can depend on me.*”, the lowest work ethic perceived by the respondents is having the trust and connection with other people or individual assuming the fact that people can depend on them. It is deemed by the questionnaire as the reliability. Although, students are already preparing for their future work or profession in the future while studying, they still encounter doubts on self- reliability as they have not yet experienced the real work scenario of what it is like being in the profession they want to achieve soon. According to Zojceska (2019) in the workplace, or reliability as a work ethic is when Employees are dependable; you can count on them to finish the job and are employees that have a good work ethic adhere to deadlines and complete all duties on time. However, since the students still study while on the verge of working, it is acceptable that them having confidence in whether they are reliable in the workplace is the least work ethic they perceive because they are still on the process of checking themselves on the things that they can and cannot do. Meanwhile, it is reasonable for the students to perceive accountability as their greatest perceived work ethic since being accountable is the start of developing different work ethics.

Table 10

Summary of Themes for RQ2

Research Question	Themes
2. How do work scholars assess their work ethics?	<ul style="list-style-type: none"> • Responsibility • Accountability • Productivity

Interviews were conducted to validate and confirm the answers of the respondents. Themes were generated during the interview. Table 10 presents the results.

Responsibility

Responsibility is a widely used term today, and it is generally understood to mean taking responsibility for one’s own actions. Responsibility refers to one’s ability to perform assigned duties and obligations satisfactorily and this entails taking care, being accountable and accepting the results of one’s action, feeling and utterance (Hawkins 2019) Mark said he developed the most the work ethics of honesty, punctuality and being responsible.

Efficiency has an impact on people's lives. It is the power that motivates a person to carry out their duties and produce results in their daily lives. Despite its widespread use, the term "performance" is sometimes misconstrued. Capacity has varied meanings when used to different parts of the same industry. Productive simply means that a person has performed their given obligations in a creative and timely manner, and that a positive outcome must be achieved by running efficiently and efficiently doing the chores. In general, productivity is defined as the relationship between a service's output and the number of input elements required to generate that output. The term "productive" describes the link between actual performance and procrastination, which is defined as postponing or doing nothing about something,

"I learned to be responsible in work" - Food Service

Within recent times, the phrase "responsible" is commonly understood to indicate "accepting responsibility for one's own acts." The capacity to properly accomplish given responsibilities and obligations is defined as taking care, being honest, and understanding the consequences of one's actions, attitudes, and words.

Accountability

Accountability is described as being obligated to report, explain, or justify anything, being accountable, and being answerable. Accountability refers to the state of being held accountable for something, as well as a duty or readiness to take responsibility. (Smith, 2021).

Being on time for work and able to handle the distressing situation is one of the experiences of Erika. She said, *"Being on time for work. Being respectful of other people you are dealing with. Being professional in handling distressing situations."*

According for work scholar of public safety work-life balance is a work ethic to do your best at work and put yourself to more possibilities to learn, grab the opportunity to learn and discover new things. He said, *"Work-life balance is a work ethic for me is do your best at work and put yourself to more possibilities to learn, grab the opportunity to learn and discover new things."*

Maintaining a healthy balance between work and home duties is referred to as work-life balance. Work-life balance refers to the proportion of time and effort spent on work vs time and effort spent on other activities. Many people today face challenges in which they are unable to manage all the competing demands in both their professional and personal lives.

Productivity

"I am able to complete my job tasks in a timely manner" an item which claims to support Pekuri's (2016) meaning that efficiency simply indicates that an individual has completed their given tasks resourcefully and quickly, and that by working effectively, by completing the tasks in a short amount of time, a productive result should be obtained. In general, productivity is defined as the connection among a system's output and the quantity of input elements it uses to achieve that output. Simply said, students must be given activities to help them care about their needs by becoming fruitful, and if they are productive, they would become efficient.

"Work Scholar Program enhances my way of dealing situations professionally. Before, I do get angry easily, but work scholar thought me to be patient especially in dealing with people because it is not good to add more fuel to the fire. I also learned the importance of having good relationships with the people you are working with because it also contributes to the overall wellbeing of the working environment" - Monitor

"We emphasize the importance of real-world skills that will help us succeed in our career and in our life." -AUP Store

Individuals began to mature once they are exposed to life events, and their values might shift as they have children, a family, a secure profession, and so on. It is also often held that one's background, environment, and traditions have the greatest influence on one's worth, but what about exposure to working scholar programs?

"Somehow challenging but sharpens my mind ethically by having day by day battle." -
Water Station

Comparison of Values and Work Ethics of Work Scholars Considering their Sex and Year Level

Table 9 and 10 presents the comparison of values and work ethics of the work scholars considering their sex and year level. The results showed that the values and work ethics of work scholars do not differ between males and females. The p-values of all comparisons are greater than .05 level. As a result, the hypothesis that there is no significant difference in the values and work ethics of the college students when sex is considered is *accepted*.

Table 11
Comparison of Values and work ethics by Sex

	Sex	N	Mean	T	df	Sig.(2-Tailed)	Verbal Interpretation
Work Ethics Skills	Male	99	4.0770	-1.247	160	.214	NS
	Female	63	4.2044				
Values	Male	99	4.2020	.262	160	.793	NS
	Female	63	4.1857				

Table 9 presents the descriptive results of the comparison of the values and work ethics of college students by sex. T-test was used for this comparison. The results were interpreted based on the mean rank. The higher the mean rank, the higher the values and work ethics. The result of the study conforms with the results of the study of gender-related differences in ethical attitudes of 318 graduate and undergraduate business students (1997) revealed in several investigations that there are no differences in sex were noted for survey items concerning values and work ethics.

Table 12
Comparison of Values and Work Ethics using ANOVA by Year level

		Sum of Squares	Df	Mean Square	F	Sig.	Verbal Interpretation
Work Ethics Skills	Between Groups	1.633	3	.544	1.359	.257	NS
	Within Group	63.273	158	.400			
	Total	64.906	161				
Values	Between Groups	.976	3				NS
	Within Group	22.851	158	.325	2.250	.085	
	Total	23.827	161	.145			

The values and work ethics of college students do not differ by year in college. The p-values of all comparisons are greater than .05 level. Students regardless of their year level (2nd year, 3rd year, and 4th year) have comparable values and work ethics and their sub dimensions. As a result, the hypothesis that there is no significant difference in the values and work ethics of the college students when the year level is considered is *accepted*.

Summary, Conclusion, and Recommendations

The results of our data collection are summarized in this chapter. The results are based on the researchers' observations and recommendations.

Summary of Findings

In this study, the researchers have determined the impact of work scholarship program on the values and work ethics perceived by the work scholars at the faith-based university. The researchers found out that the work scholarship program has a *high* or positive impact to the values of the work scholars specifically on the following: personal growth, integrity, friendship, positive attitude, leadership, self-discipline well-being, adaptability, creativity, and conflict resolution. Furthermore, the work scholarship program also has a *high* or positive impact to the work ethics of the work scholars specifically on the following: accountability, do-it-yourself, work-life balance, diligence, responsibility, traditional work, productivity, and reliability. In addition, based from the interviews conducted, the following values were significantly identified by the work scholars that created a great impact on their values: skills improvement, improved patience, improved socializing skills, and improved self-esteem. Work scholars, specifically those who are new or first year students, have experience challenges on time management and adjusting to circumstances and situation.

Lastly, there is *no significant difference* in the values and work ethics of work scholars when grouped according to their sex and year level.

Conclusions

Based on the results of the study, it is concluded that the Work Scholarship Program has a positive or *high* impact on the values and work ethics of the work scholars in a faith-based university. It was also found out that most of the challenges encountered by the new students entering into the Work Scholarship Program is time management and adjusting to circumstances and situations.

Recommendations

To the university/Work Scholarship Program coordinator

Proper orientation on the work scholarship program should be conducted to all students especially to new students so that they can be prepared to the challenges and problems they might encounter in their place of work. Seminars can be conducted also on Time Management and how to adjust with the circumstances and situations so they can be guided properly especially to new students who are new to WSP.

To the work scholars

Students should continue improving and developing their values and work ethics since these are their valuable lifetime assets for their future success in life.

Work Supervisors

The work supervisors should continually push and encourage them in discovering themselves even more in a way of challenging themselves in the tasks and responsibilities that they have never done or experienced before for them to improve their skills.

To the parents

Constantly showing support to their children is a must especially most students need to feel that they too can be reliable at sometimes. Encouraging them to try and discover themselves, even more, will help their children be able to answer problems themselves.

To future researchers

This study can be further improved when they focus on the topic surrounding the factors that affect the perceived work ethic and values of college students. It would be better if they use a larger population and samples.

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ONLINE LEARNING ASSESSMENT METHODS: EFFECTS ON THE ETHICAL STANDARDS OF ACCOUNTANCY, ACCOUNTING INFORMATION SYSTEM, AND ACCOUNTING TECHNOLOGY STUDENTS

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Abstract

Due to the abrupt switch into a new kind of instruction and learning assessment methods for classes in order to adapt to the transition regarding students' learning modes, it may be difficult to regulate or control activities such as cheating since these methods in online learning are supervised frequently by proxy. The study focused on the accountancy students from a faith-based institution in Puting Kahoy, Silang Cavite, in which data collection was conducted using online forms. Out of the categories for online learning assessment methods enumerated in the research by Kearns (2012), online written assignments, online discussion and recitation, online quizzes, and online examinations together with its relationship to the three Fundamental Principles of the Code of Ethics of Accountancy among accountancy students (integrity, objectivity and confidentiality) is examined. Results from the data gathered through the forms shows that regardless of the different online assessment methods conducted to the accountancy students, the way they practice the three said Fundamental Principles of the Code of Ethics of Accountancy does not change and it does not have a strong correlation with each other. The study aims to recommend the improvement regarding the ethical standards of accountancy students in terms of integrity, objectivity, and confidentiality and further study in relation to face-to-face setting.

Keywords:

Ethical standards play a significant role in Accountancy, especially in the field where threats are present. Thus, the Code of Ethics for Accountancy was issued as a guideline for professional accountants. The fundamental principles demonstrated in the ethical codes or standards are what accounting professionals choose to abide by to improve their careers, maintain public trust, and demonstrate honesty and fairness (University of West Florida, 2017). Accountants must be knowledgeable about these standards to perform their work professionally and to be able to abide by the laws and regulations. Practicing sound moral judgment should be part of accounting professionals' accounting activities (Vitez, 2019). Not all who work in accounting are trustworthy individuals (University of West Florida, 2017).

The International Ethics Standards Board for Accountants enumerated five fundamental principles of ethics for professional accountants. These principles are Integrity, Objectivity, Professional Competence and Due Care, Confidentiality, and Professional Behavior (International Ethics Standards Board of Accountants [IESBA], 2018). Integrity refers to the act of being honest and straightforward in all professional and business relationships. Objectivity states that professional or business judgments shall not be compromised due to bias, conflict of interest, or the undue influence of others. Professional Competence and Due Care indicate a need to attain and maintain professional knowledge and skill to ensure that an employing organization receives competent professional service and acts diligently and in accordance with applicable professional standards. Confidentiality requires respect in terms of the confidentiality of information a person acquires. While professional behavior expresses the need to comply with relevant laws, rules, and regulations and avoid acts that would tamper with or discredit the profession. Each fundamental principle of ethics has importance for accounting students. In the time spent in academia, students would be able to integrate the principles of integrity, objectivity, and confidentiality into practice. At the same time, they prepare themselves for the workplace and cultivate them to become the better person a company is looking for.

Decisions made by business owners, executives, investors, and other stakeholders rely on the information provided by accounting (Whitmire, 2020). Accountants should not use confidential information for personal gain or advantage (Vitez, 2019). Accountants must be responsible and must practice correct judgment on making decisions that will not destroy their moral and ethical views. Instructors must instill these fundamental principles of ethics in accounting early in the undergraduate level so when students face a situation for decision making, they are knowledgeable when it comes to doing what is right.

However, a sudden shift in learning mode occurred due to the outbreak of a pandemic. The recent infectious and deadly disease known as COVID-19 caused various sectors of the economy to shut down their operations. From small businesses, the private sector, as well as educational operations. COVID-19 has spread to almost every country and area on earth, with 135 nations and territories reporting verified cases. Because of the outbreak's disturbances, a large number of children and teens are unable to maintain their normal study routines (Wang, 2020). Thus, educational institutions formulated ways to continue their operations during the pandemic. During this time, a necessary strategy that helped continue the pace of education was online teaching. This method was considered to control the spread of COVID-19 and reduce its impact on education (Chen et al., 2020).

Assessment of student's online learning is a challenge during this pandemic. A study was conducted to determine the types of assessment methods being used in online courses. In their study, five categories emerged: (1) written assignments; (2) online discussion; (3) projects; (4) quizzes and exams; and (5) presentations (Kearns, 2012). He added that the complexity of online learning assessment lies in the need for developing reliable criteria for assessing online tasks.

It may be difficult to regulate or control activities such as cheating since these methods in online learning are supervised frequently by proxy. Piracy, inadequate selection skills, plagiarism, improper use of copy and paste, and cheating are still present in online learning (Arkorf &

Abaidoo, 2015). Students tend to do actions for their gains, such as attaining high grades and scores; that is why there is a tendency that the ethical standards or principles of Accountancy are not being practiced, which might lead to poor ethics amongst future CPAs. This indicates that such individuals are more inclined to breach the law in order to enrich themselves or their businesses in an unlawful manner. Financial statements that are untrustworthy and become useless and harm the business' reputation through poor ethics practiced in accounting and may also increase criminal activities (Li, n.d.).

Since the move to online learning during the pandemic is a must, assessment has become a dominant issue in higher education. Previous studies tackled the comparison of online learning outcomes from face-to-face accounting courses (Faidley, 2018), the use of case studies for pervasive skills enhancement (Reyneke & Shuttleworth, 2018), and the perceptions of students and their experiences with online course content and interactions (Nwankwo, 2015). Most studies focus on the perceptions of students and the mode of online learning. However, the nature of assessment and its effect on accountancy students' ethical standards are not directly addressed. Therefore, there is a need to conduct studies that will address some of these issues.

Methodology

The approach and procedures used in this study are discussed in this chapter. It also covers the study's design, population and sample, research instrument, research instrument validation, data collection procedures, statistical data treatment, and ethical considerations in this study.

Research Design

This study employed a quantitative, correlational research method to evaluate the relationship between the dependent and independent variables. It further predicts and explains the relationship among variables, and there is no attempt to control or manipulate the independent variables (Creswell, 2015).

A descriptive-correlational research approach was used to determine the relationship between online learning assessment methods and the ethical standards of accountancy students.

Population and Sampling Technique

The population of this study focused on the students of a faith-based institution in Puting Kahoy, Silang Cavite, during the second semester of the academic year 2020-2021.

The researchers used the convenience sampling technique as the study required samples that included first year to fourth-year accountancy college students enrolled for the second semester of the academic year 2020-2021 and had online classes as their mode of learning during this time of pandemic. Convenience sampling, also known as accidental sampling, is a type of non-probability sampling technique wherein researchers pick sample members from those who are easily and readily available (Formplus Blog, 2021). The researchers drew the sample from a section of the population that was near to hand.

Table 1

Distribution of respondents by Year Level

	Frequency	Percent
First year	21	21.0
Second year	44	44.0
Third year	27	27.0
Fourth year	8	8.0
Total	100	100.0

Distribution of Respondents by Sex

Of all the 100 respondents that answered the questionnaire, the majority were female students. It indicates that there were 33 males, or 33%, and 67 females, or 67%, who answered the questionnaire. This consists of 10 males, or 52.38%, and 10 females, or 47.62%, in the 1st year students; 13 males, or 29.55%, and 31 females, or 70.45%, in the 2nd year students; 7 males, or 25.93%, and 20 females, or 74.07%, in the 3rd year students; and 3 males, or 37.50%, and 5 females, or 62.50%, in the 4th year students.

Table 2

Distribution of Respondents by Sex

	Frequency	Percent
Female	67	67.0
Male	33	33.0
Total	100	100.0

Distribution of Respondents by Parents' Highest Educational Attainment

Out of the 100 respondents, 31 or 31% of the respondent's fathers who did not finish a college degree, 55 or 55% are college graduates, and 14 or 14% answered that they have a postgraduate degree, such as a Master's degree and Doctorate degree.

Table 3

Distribution of Father's Highest Educational Attainment

	Frequency	Percent
Did not finish college	31	31.0
College Graduate	55	55.0
Post graduate degree	14	14.0
Total	100	100.0

As for the mother's highest educational attainment among the respondents, 24 or 24% answered that they did not finish college, 69 or 69% answered that they have graduated from college, and 7 or 7% answered that they have a postgraduate degree.

Table 4

Distribution of Mother's Highest Educational Attainment

	Frequency	Percent
Did not finish college	24	24.0
College Graduate	69	69.0
Post graduate degree	7	7.0
Total	100	100.0

Instrumentation

The researchers used self-made online survey questionnaires through Google Forms. The questionnaire was divided into three (3) parts, such as Part I - Demographic Profile of the respondents; Part II - Online learning assessment methods used in accounting subjects; and Part III - Fundamental Principles of the Code of Ethics of Accountancy.

Part I is the demographic profile questionnaire with four items based on the researcher-conducted instrument about the demographic profile of the respondents, namely: year level, sex, course, and parent's highest educational attainment.

Part II is a researcher-conducted instrument about online learning assessment methods used in accounting subjects such as written assignments, oral recitations and discussions, quizzes, and exams, and to what extent these are used to assess the student's performance. This is a five (5) item questionnaire.

The three-part research instrument, with two subscales, was tested for reliability using Cronbach's Alpha. According to Bujang et al. (2018), Cronbach's alpha is a statistical measurement that quantifies the internal consistency or reliability of a number of items, measurements, or ratings.

The online learning assessment methods subscale consisted of 4 items with an alpha of 0.601 ($\alpha = .601$), and the ethical standards subscale consisted of 24 items with an alpha of 0.699 ($\alpha = .699$). According to Daud et al. (2018), alpha ranging from 0.60 to 0.80 is considered moderately reliable but is acceptable. In addition, alpha ranging from 0.80 to 1.00 would be considered very good in terms of reliability. Cronbach's Alpha is also sensitive in terms of the number of items on the scale (Ullah, 2019). Ullah (2019) stated that a small number of questions may result in smaller Alpha Reliability, while having a large number of questions would imply a larger Alpha reliability, explaining why the online learning assessment methods subscale Alpha is smaller than that of the ethical standards subscale.

Data Gathering Procedure

The gathering of data was conducted during the academic year's inter-semester, which started on July 20, 2021, and was completed on July 30, 2021. A letter of consent to conduct a survey was sent to the affiliated organization of the respondents and was approved by the president of the said organization, to whom an official roster of the students was given to the researchers, exclusively for their use in the study. Before the instruments were distributed, consultations took place to ensure that the instruments were tested for their validity and reliability. After the instrument had gone through the required approvals, it was transferred to the Google Form in preparation for the data collection.

The researchers personally administered the instruments through electronic mail, Facebook Messenger, and Microsoft Teams chat to the respondents personally and through their year-level group chats. Since actual handing out of the research instrument was impossible due to travel restrictions and no face-to-face classes were held at the university where the research was conducted, the data gathering was purely held online. The retrieval of the instruments was on the same day the respondent answered the instrument, as it was automatically collected through Google Forms. It took the researchers almost 1 month to at least collect the desired number of respondents.

Once the data had been collected online via Google Forms, the data was then downloaded into an Excel spreadsheet and analyzed using the Statistical Package for the Social Sciences (SPSS) software in order to determine the mean, standard deviation, frequency, percentage distributions, and the corresponding correlations between the independent and dependent variables using descriptive statistics.

Lastly, in order to check the number of targeted respondents, the researchers used the results from the Google Forms, using the question "year level" as a basis to check how many respondents have answered per year level.

Ethical Consideration

In conducting the research, especially in terms of the data gathering procedure, ethical issues were considered. In order to protect the rights and welfare of the research participants, an application for review was sent to the Ethics Review Board, under the Research Office of the institution where data was gathered and was duly approved for data gathering. Also, to maintain the integrity and quality of the research, the researchers only sent out the instrument to the respondents as to where the data was supposed to be gathered. It was sent to their school email address and requires the said email address to be utilized to access the Google Form. Instructions were provided on the instrument as well as the purpose and objective of the said research.

The respondent's name was not asked for on the instrument to hide their identity and for confidentiality purposes, and their responses are not to be disclosed to outside parties. The researchers assured that the data gathered would be for research purposes only. Strict confidentiality measures were enforced during the retrieval, encoding, analysis, and storage of the instruments and data gathered. Respondents were also informed that their participation is voluntary. Thus, the respondents' consent was requested along with the assurance that confidentiality was strictly observed during the study.

Analysis of Data

To analyze the data, the questionnaires were entered into the Statistical Package for Social Science (SPSS) and statistically handled using a variety of methodologies and tools. The demographic profile data, as well as the extent to which accountancy students practice the fundamental principles of integrity, objectivity, and confidentiality and the extent to which they use online learning assessment methods, were subjected to descriptive statistics using percentages, frequencies, the mean, standard deviation, independent t-test, and ANOVA.

The Pearson product correlation and regression were employed in determining the significant influence between the online learning assessment methods, considering the demographic profile of the respondents and the ethical standards of the accountancy students.

Results and Discussion

The results and explanation of data acquired through the questionnaire issued to respondents are presented in this chapter. This part looked at the descriptive statistics of the data gathered by the means of mean standard deviation. Independent t-test, ANOVA, and Pearson product correlation were also utilized to analyze the correlation of each variable.

Extent of use of Online Learning Assessment Methods Among Accountancy Teachers

The data gathered pertaining to the extent of use of online learning assessment methods among accountancy teachers were analyzed through the utilization of mean and standard deviation. Jackson (2021) states that the mean is calculated by dividing the total number of values in a data set by the sum of numbers in the data set. She added that the mean is also known as the average in which it may be used to get a feel of the overall data collection. While the standard deviation, according to Hargrave (2021), is a statistic that calculates the square root of the variance and measures the dispersion of a dataset compared to its mean. By calculating each data point's divergence from the mean, the standard deviation is determined as the square root of variance.

There were four online learning assessment methods that were presented and analyzed in this study, namely, online written assignments, oral recitations, online quizzes, and online examinations. Other online learning assessment methods mentioned by the respondents were also discussed in this section.

Table 5

Online Learning Assessment Methods used by Accountancy Teachers

	Mean	Standard. Deviation	Scaled Response
Our teacher gave us online written exams	4.79	.456	Always
Our teacher gave us online quizzes	4.73	.489	Always
Our teacher gave us online written assignments	4.66	.536	Always
We have online graded oral recitations	4.05	.833	Often
Overall Mean	4.56	.403	Always

When it comes to the extent of use of online learning assessment methods, Table 7 shows that accountancy teachers *always* give online written exams, online quizzes, and online written assignments. However, they only *often* give online graded oral recitations during class discussion. These online learning assessment methods might be the same as with the traditional learning assessment methods, but it has some differences with the online setup as well. In an article from ReliefWeb (2020), during this COVID crisis, teachers may be expected to devise new and varied methods of monitoring student learning (from assessment to remediation of learning losses), including both informative and summative measures, as new regulations for remote learning, whether online or not, necessitate rapid changes in an instructor's daily activities, obligations, and accountability. The article also states that assessments are carried out throughout the educational process in order to improve student learning, in which it includes gathering evidence regarding learning in order to close the gap between present and intended performance, giving students feedback, integrating students in the assessment and learning process as well as formal testing or examinations that would be used for ranking and grading. In research conducted in India, it was found that to increase the efficacy of learning, students prefer recorded lessons with a quiz at the end of each class (Muthuprasad et al., 2021).

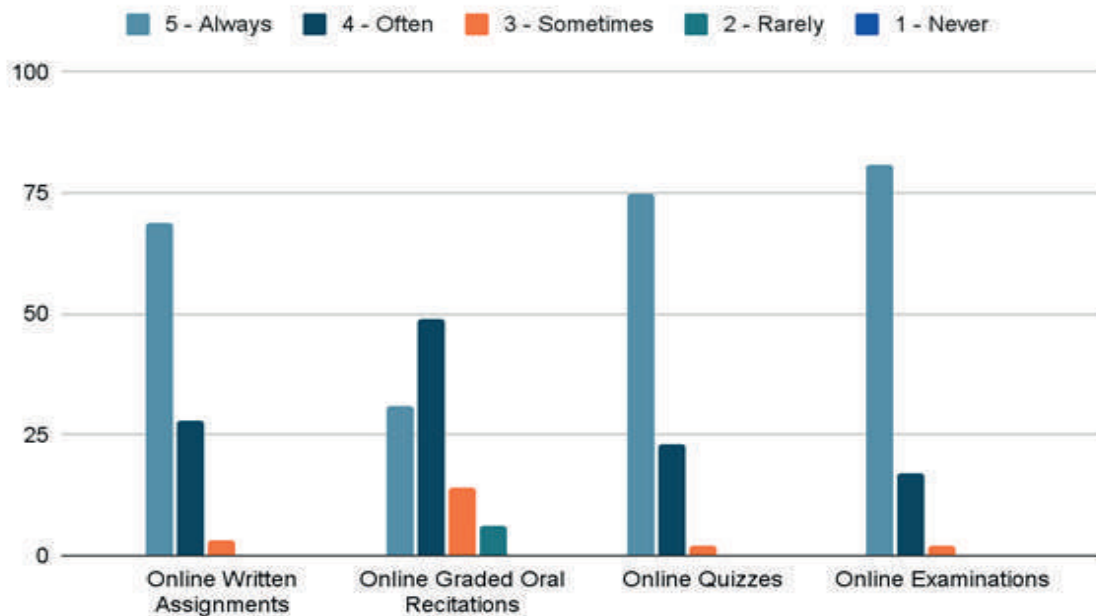


Figure 1. Detailed Distribution of Responses on Online Learning Assessment Methods

Figure 1 shows in detail the extent of use of the online learning assessment methods in order to assess the knowledge acquired by the students. Out of the 100 respondents, 69 responded that they *always* have online written assignments, 28 stated they *often* have online written assignments, and 3 indicated that they *moderately* have online written assignments, having a percentage distribution of 69%, 28%, and 3% respectively.

When it comes to online graded oral recitations, 49 indicated that they *often* have online recitations, 31 stated that they *always* have online recitations, 14 responded that they *sometimes* use online recitations, while 6 implied that they *rarely* do online recitations, resulting to a percentage distribution of 49%, 31%, 14%, and 6% respectively.

As for the quizzes, data shows that 75 responded that they *always* have online quizzes, 23 stated that they *often* have online quizzes, and 2 said that they *sometimes* have online quizzes, which shows a percentage distribution of 75%, 23%, and 2% respectively.

In addition, online written exams were also analyzed in detail. Out of the 100 respondents, 81 said that they *always* have online written examinations, 17 indicated that they *often* do it, while 2 stated that they *sometimes* have online written examinations, implying a percentage distribution of 81%, 17%, and 2% respectively.

Fundamental Ethical Standards of Accountancy

There were five (5) fundamental principles of ethics of accountancy, but only three (3) principles are interpreted and used as these principles are more applicable to the students in the matter of practicing the fundamental principles, such as Integrity, Objectivity, and Confidentiality, in respect to the Online Learning Assessment Methods given.

Integrity

The data below shows that there are respondents that have a *very high* practice of the integrity principle, with a mean of 4.91 representing respondents who never asked others to take their online examinations for them. A mean of 4.51 indicates that they have never tried to obtain copies of previous quizzes and examinations from higher-level students. Nonetheless, the majority of the respondents are *highly* principled as to integrity, showing that they have rarely searched for solution manuals on the internet, some often relied on their own answers during quizzes, and they did not open any materials in answering their examinations. Furthermore, there are some who sometimes practice the integrity principle by stating that they *sometimes* search for solution manuals on the internet to answer their assignments, having a mean of 3.09.

According to a research article, academic integrity has become a topic of continuing investigation as colleges have switched to emergency remote instruction (Karjagdi Çolak & Glendinning, 2021). They added that instructors must put emphasis not just on subject content, but also on academe's ethical mores, as it is frequently basic day-to-day behaviors that help develop a community and foster an atmosphere of integrity.

Table 6
Ethical Standards of Accountancy Students in terms of Integrity

	Mean	Standard Deviation	Scaled Response	VI
1. I relied on my own answers during quizzes.	4.23	.709	Often	High
2. I searched for solution manuals on the internet to answer my quizzes. [Negative]	3.52	1.068	Rarely	High
3. I did not search for solution manuals on the internet to answer my assignment.	3.09	.954	Sometimes	Moderate
4. When the examinations were ongoing, I did not open any materials that would impair my integrity in answering the questions.	3.67	1.207	Often	High
5. I asked others to take my online exam for me. [Negative]	4.91	.379	Never	Very High
6. I made cover-ups during recitation whenever I don't know what to answer. [Negative]	4.17	.842	Rarely	High
7. I did all my coursework honestly.	4.04	.840	Often	High
8. I tried to obtain copies of previous quizzes and examinations from the higher-level students. [Negative]	4.51	.847	Never	Very High
Total	4.0175	.52795	Often	High

Objectivity

The data below shows that the respondents are considered to be highly objective when it comes to answering their quizzes as they based it on what was discussed in class, considering a mean of 4.30. Same as for depending their quiz solutions on the books that they read, with a given mean of 4.30, and depending their exam solutions on the materials provided in class, with a mean of 4.21. The data also shows that some of the respondents have low objectivity principle in situations such as giving unrelated answers to the topic during their oral recitations and basing their scholarly written assignments on what they feel, having a mean of 1.96 and 2.44 respectively. There are also students that say that they sometimes based their answers in oral recitations on mere opinions, with a mean of 2.95, which shows that they practice the objectivity principle in this situation moderately.

The result of high objectivity indicates that students have greater learner independence built over the course of their online learning which is reflected in the methods of online learning assessment it corresponds to. In the study by Sudiasih et al. (2021), they discussed how students enhance their learner independence built on a foundation of their values, responsibility, honesty, and dignity which they apply to their online learning and assessments.

Table 7

Ethical Standards of Accountancy Students in terms of Objectivity

	Mean	Standard Deviation	Scaled Response	VI
1. I based my scholarly written assignments on what I feel. [Negative]	2.44	1.113	Often	Low
2. I gave answers unrelated to the topic during oral recitations. [Negative]	1.96	.909	Often	Low
3. I did not validate my written assignments. [Negative]	3.64	1.049	Rarely	High
4. I answered my quizzes based on what was discussed in class.	4.39	.695	Often	High
5. I based my answers during oral recitation on mere opinion. [Negative]	2.95	1.009	Sometimes	Moderate
6. My exam solutions are based on the materials provided in class.	4.21	.769	Often	High
7. My quiz solutions are based on the books that I read.	4.30	.704	Often	High
8. I ensured that I did all my coursework alone.	3.83	.888	Often	High
Total	3.4650	.36974	Sometimes	Moderate

Confidentiality

The data revealed that most of the respondents show a high practice of the confidentiality principle. Data shows that respondents rarely influence their classmates to copy from their answers and that they rarely share the coursework solutions to others, with a mean of 4.44 and 4.08, respectively. Some respondents state that they do not often give copies of the exam questions to their classmates, having a mean of 3.91 which indicates a high practice of confidentiality principle. The data also indicates that some of the respondents have low practice when it comes to the confidentiality principle in the situation where they often share unsolicited answers from their classmates about a quiz to anybody else, resulting in a mean of 1.67.

Since it is very hard to confirm that students are not breaking academic ethical principles, by cooperating with others or cheating during quizzes and exams, Mazza (2021) agrees that these

methods pose the question of how to assure academic confidentiality. He added that considering the utilization of social media and the widespread availability of smartphone devices, students have more means to open communication to others which might be a major source of academic misconduct, particularly in quizzes and examinations where the questions are fixed and same across participants. That is why some teachers and instructors adopted preventive measures in order to mitigate problems, such as random quiz questions and time limits. But according to Mazza (2021), despite these precautions, it is feasible that students will still exchange information during academic learning assessments, especially on quizzes and examinations.

Table 8

Ethical Standards of Accountancy Students in terms of Confidentiality.

	Mean	Standard Deviation	Scaled Response	VI
1. I gave copies of my assignments to my classmates. [Negative]	3.67	1.006	Rarely	High
2. I did not give copies of the quiz questions to my classmates who had not taken it yet.	3.61	1.582	Often	High
3. I shared to others the coursework solutions from the Class Notebook in MS Teams given to us by our teacher. [Negative]	4.08	1.134	Rarely	High
4. I did not share information about the contents of the Oral recitation to other sections with the same teacher.	3.69	1.468	Often	High
5. I influenced any of my classmates to copy answers from me. [Negative]	4.44	.820	Rarely	High
6. I did not give copies of the exam questions to my classmates.	3.79	1.546	Often	High
7. I did not give copies of my exam answer to my classmates.	3.91	1.386	Often	High
8. When I receive unsolicited answers from my classmates about a quiz, I share them with anybody else. [Negative]	1.67	.922	Often	Low
Total	3.6075	.73384	Often	High

In a broader sense, results show that when it comes to the integrity principle, respondents show high practice in relation to their online learning assessments, with a mean of 4.0175. Respondents are also *highly* confidential, with a mean of 3.6075, but this may still need some improvements, compared with the practice in the integrity principle, as it is closer to be considered as average. However, the objectiveness of the respondents, on the other hand, shows only an average remark, with a mean of 3.4650. This indicates that the respondents *moderately* practice the objectivity principle when it comes to their academic assessments.

Considering the overall mean of the respondents' principles of ethics, it indicates a 3.6967 mean which may be considered as *high* but still requires improvement and development as it weighs more on the average rather than the high mark. This can indicate that distance or online learning increased the possibility of academic dishonesty, with or without an accomplice, on online assessments. In the study of Alessio, Malay, Maurer, Bailer, and Rubin (2017), it was stated and cited that undergraduate student claimed that cheating online was simpler than cheating in a traditional face-to-face classroom. As cited by Daffin and Jones (2018), common justification that

students use is that “It’s simple”; they need to pass the class; the course is too difficult; nobody really cares about cheating; others are cheating; and they don’t have time to study.

Table 9
Overall Descriptive Statistics of the Principles of Ethics.

	Mean	Standard Deviation	Scaled Response	VI
Integrity	4.0175	.52795	Often	High
Objectivity	3.4650	.36974	Sometimes	Moderate
Confidentiality	3.6075	.73384	Often	High
Principles of Ethics	3.6967	.42476	Often	High

Relationship between Online Learning Assessment Methods and the Fundamental Ethical Principles of Accountancy

Pearson’s correlation is used to establish a link between online learning assessment methods (online written assignments, oral recitations, quizzes and examinations) and the three ethical principles which are integrity, objectivity and confidentiality for accountancy students. In an article by Kent State University (2022), Pearson Correlation generates a sample correlation coefficient, represented by r , in which it indicates between two variables the strength and direction of linear correlations. They added that in this statistical analysis, the correlation can have any value between -1 and 1. The magnitude of the correlation (how near it is to -1 or +1) reflects the intensity of the link, whereas the sign of the correlation represents the direction of the association (Kent State University, 2022). -1 represents a perfectly negative linear relationship, 0 having no relationship, and +1 represents a positive linear relationship. In the table below, the results of the correlations between the independent and dependent variables are summarized and presented.

Table 10
Correlational Analysis of Online Learning Assessment Methods and Ethical Standards of Accountancy

		Integrity	Objectivity	Confidentiality	Principles of Ethics	Online Written Assignments	Online Graded Oral Recitations	Online Quizzes	Online Examinations
Integrity	Pearson Correlation	1	.344**	.593**	.856**	-.113	-.088	-.143	-.037
	Sig. (2-tailed)		.000	.000	.000	.265	.383	.156	.715
	N	100	100	100	100	100	100	100	100
Objectivity	Pearson Correlation	.344**	1	.140	.513**	-.073	.084	-.018	-.149
	Sig. (2-tailed)	.000		.164	.000	.468	.408	.860	.139
	N	100	100	100	100	100	100	100	100
Confidentiality	Pearson Correlation	.593**	.140	1	.862**	.001	.057	-.122	.008
	Sig. (2-tailed)	.000	.164		.000	.994	.572	.226	.939
	N	100	100	100	100	100	100	100	100
Principles of Ethics	Pearson Correlation	.856**	.513**	.862**	1	-.068	.021	-.135	-.054
	Sig. (2-tailed)	.000	.000	.000		.505	.838	.181	.593
	N	100	100	100	100	100	100	100	100

{table continues on the next page}

Online Written Assignments	Pearson Correlation	-.113	-.073	.001	-.068	1	.378**	.378**	.490**
	Sig. (2-tailed)	.265	.468	.994	.505		.000	.000	.000
	N	100	100	100	100	100	100	100	100
Online Graded Oral Recitations	Pearson Correlation	-.088	.084	.057	.021	.378**	1	.207*	.001
	Sig. (2-tailed)	.383	.408	.572	.838	.000		.039	.990
	N	100	100	100	100	100	100	100	100
Online Quizzes	Pearson Correlation	-.143	-.018	-.122	-.135	.378**	.207*	1	.513**
	Sig. (2-tailed)	.156	.860	.226	.181	.000	.039		.000
	N	100	100	100	100	100	100	100	100
Online Examinations	Pearson Correlation	-.037	-.149	.008	-.054	.490**	.001	.513**	1
	Sig. (2-tailed)	.715	.139	.939	.593	.000	.990	.000	
	N	100	100	100	100	100	100	100	100

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

*. Correlation is significant at the 0.05 level (2-tailed).

Online Written Assignments and Ethical Standards of Accountancy

Since the start of online classes, the use of technology for education has arisen. In the study of Lesisko et al., (2018) it says that technology makes it easier for students to use the “copy and paste” application feature for their work without any proper citation, because of its adaptability and capabilities. A study conducted by Peytcheva-Forsyth et al. (2018) had results that those twenty (20) students had admitted to having cheated or plagiarized sometimes or occasionally but this doesn’t guarantee that they are given the benefit of the doubt.

The results indicate that there is no significant (and strong) correlation between online written assignments and the three ethical principles (integrity, objectivity and confidentiality). The significance level for integrity, objectivity and confidentiality are .265, .468, .994 respectively which are above the confidence level of 0.05 and 0.01.

Online Graded Oral Recitations and Ethical Standards of Accountancy

One of the important skills of higher education students that must be possessed is the ability to communicate effectively, and these skills should be assessed through an oral assessment task, formative or summative, that contributes to the process of learning (Akimov, et. al., 2020). They also stated that this may improve their communication skills, knowledge, and confidence, as well as their motivation to learn and comprehend the subject matter, lowering their chances of cheating.

The results indicate that there is no significant (and strong) correlation between online recitation and the three ethical principles (integrity, objectivity and confidentiality). The significance level for integrity, objectivity and confidentiality are .383, .408, .572 respectively which are above the confidence level of 0.05 and 0.01.

Quizzes and Examinations and Ethical Standards of Accountancy

The results indicate that there is no significant (and strong) correlation between quizzes and exams to the three ethical standards (integrity, objectivity and confidentiality). For the quizzes, the significance level for integrity, objectivity and confidentiality are .156, .860, .226, respectively. For the exams, integrity, objectivity, and confidentiality has a significance level of .715, .139, and .939, respectively, which are above the confidence level of 0.05 and 0.01

Online examinations are a common form of online evaluation in higher education (Boitshwarelo, et. al., 2017). Although it has the disadvantage that papers may be easily purchased online from organizations such as Course Hero, and students can gain answers to exam questions despite warnings not to use other resources such as the textbook, websites, or other students (Daffin and Jones, 2018). That is why precautions are implemented to prevent and avoid such unethical acts, even if online assessments do not have an impact on these behaviors.

Online Learning Assessment Methods has no detected statistical relationship with the three Ethical Standards of Accountancy (Integrity, Objectivity and Confidentiality), in which none of it was statistically significant at the $p < 0.05$ level and $p < 0.01$ level. As the data shows, there is not sufficient evidence concluding that significant influences exist between the two variables. The data presents that whether teachers and instructors perform any of the assessment methods given, it does not influence the students' principles of ethics, and are the same all throughout in different cases.

Comparison of Ethical Standards of Accountancy in relation to Respondent's demographic profile

This section shows a detailed comparison of the fundamental ethical principles of the respondents as compared to their demographic profile, namely, year level, sex, and parent's highest educational attainment. Independent T-test, ANOVA, and Kruskal-Wallis H Test were utilized in this section. By examining the means of two independent groups, the independent samples t-Test was utilized to see if statistical data is evident and that the related population means differ substantially (Kent State University, 2022). In addition, ANOVA differs from a t-test since t-test can only compare two means at a time, while ANOVA does not have such restrictions as it compares the amount of variance within each group to the amount of variation between groups. While Kruskal Wallis H Test, according to Gordon (2021), is a rank-based nonparametric test that is used in statistical research or computations to identify statistical differences among groups of dependent and independent variables.

Table 11
Comparison of Ethical Principles by Year Level

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Integrity	Between Groups	2.175	3	.725	2.737	.048
	Within Groups	25.420	96	.265		
	Total	27.594	99			
Objectivity	Between Groups	.174	3	.058	.417	.741
	Within Groups	13.360	96	.139		
	Total	13.534	99			
Confidentiality	Between Groups	6.402	3	2.134	4.367	.006
	Within Groups	46.911	96	.489		
	Total	53.313	99			
Principles of Ethics	Between Groups	2.023	3	.674	4.088	.009
	Within Groups	15.838	96	.165		
	Total	17.861	99			

The data shows that there is a significant difference in the ethical standards of accountancy students in terms of their year level and the integrity and confidentiality principles, which is significant at .05 and .01 level respectively. This implies that when it comes to the integrity and confidentiality principle, each year level may vary when it comes to practicing these principles. The higher the year level of the respondents, the lower is their integrity and confidentiality ethical standards of the accountancy students.

Locquiao and Ives (2020) discussed in their paper how first-year students are well aware of the guidelines set out for any academic misconduct. However, they are not really clear with the boundaries set up to determine the extent where their ethical principles are to be affected in different situations. Which is why regular policy reviews are needed in order to give a definition and realistic examples regarding academic misconducts so that proper assessments could be carried out (Morris, 2018) as students continue their academic journey and move on to higher levels.

On the other hand, there is no difference in the ethical standards of accountancy students in terms of year level and the objectivity principle ($F(3.96)=.417$). In other words, whether they are in 1st year, 2nd year, 3rd year, or 4th year, their objectivity is the same and are comparable. Nonetheless, there is a significant difference in the accounting principles of Ethics by Year level.

Table 12
Multiple Comparison of Ethical Principles by Year Level

Dependent Variable	(I) Year level	(J) Year level	Mean Difference (I-J)	Sig.
Integrity	First year	Second year	.19971	.159
		Third year	.23570	.143
		Fourth year	.52834*	.005
	Second year	First year	-.19971	.159
		Third year	.03599	.786
		Fourth year	.32863*	.045
Confidentiality	First year	Second year	.05263	.784
		Third year	.30263	.166
		Fourth year	.78340*	.002
	Second year	First year	-.05263	.784
		Third year	.25000	.166
		Fourth year	.73077*	.001
Principles of Ethics	First year	Second year	.11116	.320
		Third year	.20709	.103
		Fourth year	.48566*	.001
	Second year	First year	-.11116	.320
		Third year	.09593	.359
		Fourth year	.37450*	.004

In comparison between each year level, the table shows that in terms of integrity, first year students and second year students have higher integrity levels than the fourth-year students. As well as with the confidentiality of the respondents, it is shown that first year and second year students also have higher confidentiality levels than that of the fourth-year students. This may be related to how first year and second year students are adapting to their new environment. As Mayhew, Siefert, and Pascarella (2012) cited by Mallika and Henderson (2018) states that in their assessment of students in the transition phase of moral growth showed more substantial moral progress in their first year of college. Furthermore, Osbeck et al. (2018) also cited Nather (2013) who discussed that the majority of moral development begins during the first year of college.

In general, the ethical principles of the respondents comprising the first year and second year accounting students are higher than the fourth-year accounting students. The null hypothesis that states there is no difference in the ethical standards of the accountancy students in terms of year level is rejected.

Table 13
T-Test Comparison of Ethical Principles by Sex

	t	df	Sig. (2-tailed)	Verbal Interpretation
Integrity	.773	98	.441	Not Significant
Objectivity	.662	98	.509	Not Significant
Confidentiality	-.194	98	.847	Not Significant
Principles of Ethics	.357	98	.723	Not Significant

The table indicates that there is no significant relationship between the Accounting Principles of Ethics and Sex. This shows that the Integrity, Objectivity, and Confidentiality of the male respondents and the female respondents are the same and are comparable. The null hypothesis that states there is no difference in the ethical standards of the accountancy students in terms of sex is not rejected.

Lucas and Santos's (2019) study showed that although women have the tendency to have a higher percentage with regards to determining or dealing with ethical issues, the difference is not significant because females and males consider ethical issues important to their profession. Boateng and Agyapong (2017) also stated that when it comes to identifying ethical dilemmas, there is no major difference between male and female abilities.

Table 14
Comparison of Ethical Principles by Mother's Highest Educational Attainment Ranks

	Mother's Highest Educational Attainment	N	Mean Rank	Kruskal-Wallis H	df	Sig.
Integrity	Did not finish college	24	50.29	.144	2	.930
	College Graduate	69	50.17			
	Post graduate degree	7	54.50			
	Total	100				
Objectivity	Did not finish college	24	45.69	1.771	2	.412
	College Graduate	69	53.01			
	Post graduate degree	7	42.21			
	Total	100				
Confidentiality	Did not finish college	24	46.94	1.265	2	.531
	College Graduate	69	50.69			
	Post graduate degree	7	60.86			
	Total	100				

The results of the data gathering indicates that the Accounting Principles of Ethics, in terms of Integrity, Objectivity, and Confidentiality, does not have any significant relationship with the respondent's mother's highest educational attainment. If you compare these principles with the mother's educational attainment, there is no difference to it, whether they have not finished college, graduated in college, or are a master's degree holder or a doctorate degree holder. The null hypothesis that states there is no difference in the ethical standards of the accountancy students in terms of mother's educational attainment is not rejected.

Table 15
Comparison of Ethical Principles by Father's Highest Educational Attainment

	Father's Highest Educational Attainment	N	Mean Rank	Kruskal-Wallis H	df	Sig.
Integrity	Did not finish college	31	47.24	1.15	2	.563
	College Graduate	55	50.63			
	Post graduate degree	14	57.21			
	Total	100				
Objectivity	Did not finish college	31	48.08	.352	2	.839
	College Graduate	55	51.92			
	Post graduate degree	14	50.29			
	Total	100				
Confidentiality	Did not finish college	31	45.21	1.525	2	.466
	College Graduate	55	56.62			
	Post graduate degree	14	53.89			
	Total	100				

The results of the data gathering indicates that the Accounting Principles of Ethics, in terms of Integrity, Objectivity, and Confidentiality, does not have any significant relationship with the respondent's Father's education. It means that whether the respondent's father has finished or not finished college, obtained a master's degree or a doctorate degree, there is no difference in terms of the said principles. The null hypothesis, that no difference in ethical principles exists between accounting students depending on their father's highest educational attainment, is not rejected.

Even though there was no difference with the integrity, confidentiality, and objectivity of the parent's educational attainment, whether they have finished their studies or not, or whether they have attained any higher education, their influence on the said principles towards their children is still present. In an article published in StateUniversity.com (n.d.), it states that regardless of the parent's educational level, educators are the driving force for parents to be involved in their children's education.

Conclusions and Recommendations

There were more female students than male students under the accountancy department of the institution. Most of the respondents came from the second-year level and their parents' highest educational attainment is at the college level. However, no significant difference is present despite the respondent being a male or a female, and the respondents' parents' highest educational attainment with their ethical standards. Therefore, accepts the hypothesis that there is no significant difference when it comes to the ethical standards of accountancy students with their sex and parents' highest educational attainment. Moreover, the higher the year level of the respondents, the lower is their integrity and confidentiality principle, and vice versa. Thus, rejects the hypothesis that regardless of the year level of the students, there is no significant difference on the ethical standards of accountancy students.

Regardless of the different online assessment methods conducted to the accountancy students, the way they practice the three Fundamental Principles of the Code of Ethics of Accountancy, namely, integrity, objectivity, and confidentiality, does not change and it does not have a strong correlation with each other. Thus, it accepts the hypothesis that there is no significant influence between online learning assessment methods and the ethical standards of accountancy students.

Recommendations

Following is a list of recommendations based on a comprehensive examination of the data:

1. Conduct further a research study that can help teachers come up with ways for the students to improve their ethical principles in terms of integrity, objectivity, and confidentiality since the overall result of the ethical principles of the students are high, but it weighs more on the average rather than the high mark.
2. Research on the possible reasons why lower year students have higher integrity and confidentiality levels than the higher year students.
3. Conduct research concerning other online learning assessment methods to see if there will be a significant difference with the ethical principles of the students in terms of integrity, objectivity, and confidentiality, since no significant and strong correlation between the online learning assessment methods stated in this study and the three fundamental principles of Accountancy affect the ethical principles (integrity, objectivity, and confidentiality) of the students.

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ESTABLISHING CHILDREN FITNESS CENTER IN PUTING KAHoy, SILANG, CAVITE

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Abstract

The focus of this study is the determination of the viability and feasibility of establishing a Children Fitness Center in Puting Kahoy, Silang, Cavite. The proposed business would adopt the sole proprietorship type of business organization and the workers would also receive a compensation package. The business will have 738,049 of total demand in quantity and 580,963 of organization demand in quantity for the five-year operation and 374,049 of market share of the proposed business of Happy Fit and the mission is to provide proper and high-quality children fitness services with a children friendly and pleasant environment and envisions to be the top, most preferred and dependable children fitness center. The proposed business will need an amount of Php.2,002,859.00 for the capital requirements for the investor. There will be a present value of Php.500,346.00, benefits cost ratio of 1.25%, and internal rate return of 18%. The business aims to not only earn profit but also to contribute to the environment, to the surroundings, to the government through giving tax payment, and to give tithes and offering to the Church.

Keywords: children fitness center, exercise, gymnastics, physical activities, kickboxing

The younger generations of today are seen to have shorter lifespans compared with the older generations due to diseases and impairments related to childhood immobility and obesity. Even though humans are designed to be active and spend a lot of time outdoors, kids are less interested in outdoor recreation and spend all their time on gadgets such as phones, tablets, computers, and televisions. This sedentary behavior has been shown to cause disease and unexpected death (Abdi, 2015).

According to the World Health Organization (2021), obesity in children can have both short-term and long-term health effects. Numerous health issues that were exclusively seen in adults are now increasingly being diagnosed in obese youngsters, including high cholesterol, high blood pressure, Type 2 diabetes, sleep apnea, and joint issues. Moreover, being overweight or obese in early childhood significantly increases the likelihood of being overweight or obese in adolescence and adulthood, with all the accompanying health problems. As children get older, their adaptation to a sedentary lifestyle increases. The most common measure of sedentary behavior is watching television and video games, and the outcome is seen in body composition (Abdi, E., 2015). Body composition refers to the fat, bone, and muscle percentage in the body. It is a measure to see if a person is at a healthy weight concerning their body (Wheeler, 2023).

Physical activities for children are very important in their development from six months to twelve years old (The Little Gym, n.d.). It can lead to the improvement of self-esteem and has effects on minimizing emotional issues such as depression and anxiety (Biddle & Asare, 2011). Children's fitness facilities are essential to their general well-being. Prioritizing physical activity and healthy behaviors at a young age has never been more crucial, given the increase in sedentary lifestyle and the rising prevalence of childhood obesity. It offers a secure and encouraging environment where kids may participate in age-appropriate activities and exercises, fostering a lifelong love of fitness (Public Health Agency of Canada, 2012).

Children's fitness centers are not as popular and available compared to fitness centers or gyms for adults. However, the demand is increasing. The researchers observed that no children's fitness centers are available in Puting Kahoy, Silang. The situation propelled the researchers to study the feasibility and the viability of the proposed business entitled "Children's Fitness Center in Puting Kahoy, Silang."

Methodology

Objectives of the Study

The main objective of this study is to determine the viability and feasibility of establishing a children's fitness center in Puting Kahoy, Silang, Cavite with the capability of generating a profit. Its primary target for clients are parents of children between the ages of six and twelve.

Significance of the Study

Children's fitness centers encourage a healthy lifestyle for kids, considering the growing demand for establishments that would provide a space for kids to be active and away from sitting still. The study will help people better understand the significance of children's fitness and its benefits to the community. For people interested in getting involved in a related business industry, this also acts as a source of knowledge and a guide.

The study would provide information to other researchers planning to conduct the same business project and assist businesspeople in determining whether to invest in businesses of this type by letting them know the profitability of a children's fitness center.

The study will convey to the community the idea of establishing a business and enhance their understanding of the business's importance for stabilizing the economy. Providing information on the helpfulness, quality, and safety the business offers would also be helpful for parents considering the possibility of enrolling their kids in a children's fitness center.

Scope and Limitations

This feasibility study is limited to five years only. The researchers hope to achieve effective business operation through full observation of management's marketing, technical, financial, and organizational aspects.

Related Literature

Kids who often exercise have a healthier body weight than kids who do not. Exercise boosts the heart and lungs, strengthens the muscles, and makes the bones robust. According to research, children and teenagers who routinely exercise (for 60 minutes each day) burn more fat and calories than teenagers who never work out. Furthermore, it aids in blood sugar metabolism (Knowles, 2014).

The chair of the Regional Nutrition Council of the Philippines advised parents to encourage their kids to exercise regularly to develop endurance, strength, and stronger muscles and bones. Having a learner's body helps to control fats and makes them less likely to become overweight. Regular exercise can help our children sleep better and handle physical and emotional challenges at home and in school" (Official Gazette, 2013).

Physical activity and physical fitness are linked to improved brain health regarding quality of life and successful functioning in day-to-day activities. The effective development of consciousness, on-task behavior, memory, and academic achievement in a learning environment are measures of adolescent brain health (National Center for Biotechnology Information, 2013).

Parents should also begin educating themselves and their families about their physical fitness and health. They should take at least 30 minutes daily to engage in enjoyable physical activity with their children. If they do it with their children later on, their children are more likely to join in and continue the lifestyle. Teaching adolescents about their health and fitness is a choice parents make. Although it requires a lot of work, it will be worthwhile. One of the finest presents parents can give their children is to teach them the benefits of fitness, including how it will make them feel much better and help them live longer happier lives.

Industry Profile

According to the International Health, Racquet and Sportsclub Association (IHRSA), fitness centers generate around \$83 billion in sales annually worldwide. Approximately 200,000 or more fitness clubs globally draw 160 million members. The top three markets by revenue are the US, the UK, and Germany.

Fitness experts in the Philippines are observing an increase among Filipinos as they begin to live healthier and more active lifestyles. This movement demonstrates that the Philippines is embracing the "experience economy," where market value appears by creating experiences that apply to customer needs and current trends. Like spas, fitness gyms want to make the best event for their clients, who want to be healthier and feel better. This is one of the biggest reasons the industry will continuously grow yearly.

Methodology

This chapter will discuss how the data for this study was gathered and what methods and formulas were used to determine the profitability of the proposed business.

Sources of Data

Primary Data. Primary data resources include survey questionnaires, competitor interviews, and the researcher's observations.

Secondary Data. Secondary sources include books, journals, periodicals, websites, and other types of study. The printed materials were gathered from the John Detwiller Library. Information published in portable document format was also used in the study.

Research Design

The descriptive method of research is used in the study. Surveys and interviews were conducted to gather information that was relevant to the study. The survey questionnaires were distributed using purposeful sampling since the target market was selected specifically for parents who have children ages six to twelve. An exploratory method was used to collect data from qualified materials through libraries and others. This is used to develop understanding and gather background information from the business line.

Population and Sampling Techniques

The target market includes parents with children six to twelve years of age. The researchers used the purposive sampling method and ensured that the respondents were part of the target market by asking them first whether they had children aged six to twelve before answering the questionnaire. Based on the computation of the sample size, it is 332. The sample size formula is written below (Narbarte, 2015).

Data Gathering Procedures

Before distributing the questionnaire, five laymen and five experts validated the survey instrument and gave recommendations to ensure the respondents understood it. Questionnaires totaling 345 were distributed to the respondents. The survey questionnaires were tabulated using a personal computer, and the method of projection used was the statistical straight-line method. The researchers also gathered information about the children's fitness center by interviewing the director and the instructor in charge there.

Ethical Consideration

The personal information of the respondents and interviewees was treated with the utmost confidentiality. Each respondent also participated voluntarily in answering the survey questionnaire.

Results and Discussion

In this study, the researchers will focus on describing the service to be offered, the demand and supply conditions, and the marketing plan of the proposed business.

Service Description

The business offers different kinds of programs: gymnastics and cardio kickboxing. The children will learn floor exercises, body balance, and how to develop strength, flexibility, agility, coordination, and endurance in gymnastics class. Kids will learn the fundamental moves in cardio kickboxing.

The proposed business will offer three kinds of categories for children:

1. **Basic class** is for children ages six to eight. The children will engage in games and gymnastics exercises in their gymnastics lesson, including jump roping, parachutes, dancing, and aerobics. For cardio kickboxing class, the children will do warm-ups such as sidekicks, front kicks, elbow strikes, knee strikes, punching bags, and kick pads.
2. **Moderate class** is for children ages nine to ten. The children will perform cartwheels, fundamental push-ups, flexibility exercises, and basic class exercises during gymnastics class. During the cardio kickboxing class, the children will perform the techniques learned in the fundamental class, as well as hook kicks, jab crosses, sit-up punches, sitting punches, side-to-side leg raises, and various other techniques.
3. **The Advanced class** is for children ages eleven to twelve. For gymnastics class, the children will primarily focus on front and back handsprings, straight arm handstand forward rolls, back extension rolls, and more advanced handstands. The children will do combination moves in kickboxing, self-defense techniques, and cardio combination for the Cardio kickboxing class.

Demand and Supply Analysis

The business aims to provide children's fitness services to households with children ages six to twelve in Puting Kahoy, Silang. The researchers went to each Homeowners Association and asked for the number of households in each location to get the historical number of households in each subdivision.

Table 1
Historical Number of Households

Year	Number of Households	Increase (Decrease)	Growth Rate
2013	822		
2014	982	160	19%
2015	1119	137	14%
2016	1641	522	47%
2017	1890	249	15%
Total	6454	1068	95%
Average	1291	214	24%

Source: Homeowners Associations

The method of projection the researchers assumed would be used appropriately to forecast population for the next five years is the statistical straight-line method, which is ideal for the inconsistent increase in population, considering that Puting Kahoy's population is inconsistently increasing according to the gathered information.

Table 2 shows the results of the population allowing their children to be involved in fitness activities at 56%, or 193 (345 x 56%). The remaining 44% are those who have children ages six to twelve but do not enroll them in children's fitness centers and the like.

Table 2
Projected Total Demand in Quantity in Peso

Year	Demand in Quantity	Increase (Decrease)	Growth Rate	Demand in Peso	Increase (Decrease)	Growth Rate
2019	97,368			24,038,971		
2020	138,084	40,716	42%	32,403,602	8,364,630	35%
2021	152,808	14,724	11%	35,876,658	3,473,056	11%
2022	167,532	14,724	10%	39,333,678	3,457,021	10%
2023	182,257	14,724	9%	42,790,699	3,457,021	9%
Total	738,049	84,889	71%	174,443,608	18,751,728	64%
Average	147,610	21,222	18%	34,888,722	4,687,932	16%

Table 3 shows that 82%, or 283 (345 x 82%) of the population, are willing to patronize the proposed business or give it a try. At the same time, the remaining 18% are those not willing to patronize the business.

Table 3
Projected Organization's Demand in Quantity and in Peso

Year	Demand in Quantity	Increase (Decrease)	Growth Rate	Demand in Peso	Increase (Decrease)	Growth Rate
2019	93,800			37,120,605		
2020	104,996	11,196	12%	41,551,376	4,430,770	12%
2021	116,193	11,196	11%	45,982,146	4,430,770	11%
2022	127,389	11,196	10%	50,412,917	4,430,770	10%
2023	138,585	11,196	9%	54,843,687	4,430,770	10%
Total	601,853	44,785	41%	369,660,392	17,723,082	42%
Average	120,371	11,196	10%	73,932,078	4,430,770	10%

The proponent determines the market that is available for the proposed business based on the analysis of demand, supply, and business capacity that was done above. Unmet market demand, which characterizes the proposed business's market share, is represented by an excess of demand over supply.

Table 4
Comparison of Demand and Supply in Quantity and in Peso

Demand and Supply in Quantity				
Year	Total Demand in Quantity	Total Supply in Quantity	Market Share	Organizational Demand in Quantity
2019	97,368	72800	24,568	93,800
2020	138,084	72800	65,284	104,996
2021	152,808	72800	80,008	116,193
2022	167,532	72800	94,732	127,389
2023	182,257	72800	109,457	138,585
Total	738,049	364,000	374,049	580,963

Demand and Supply in Peso				
Year	Total Demand in Peso	Total Supply in Peso	Market Share	Organization's Demand
2019	24,038,971	25,480,000	-1,441,029	37,120,605
2020	32,403,602	25,480,000	6,923,602	41,551,376
2021	35,876,658	25,480,000	10,396,658	45,982,146
2022	39,333,678	25,480,000	13,853,678	50,412,917
2023	42,790,699	25,480,000	17,310,699	54,843,687
Total	174,443,608	127,400,000	47,043,608	229,910,732

The market share will be lower during the first year, considering the total demand will be lower than the supply. However, the market share will continue to grow over time.

Marketing Study

The proposed business will provide a service that helps the children stay active. The services offer two kinds of programs for all categories: gymnastics and cardio kickboxing. The children

will be involved in physical strength, flexibility, power, agility, coordination, grace, balance, and control in gymnastics. As for cardio kickboxing, the children will be taught basic moves like jab, kick, high knees, etc.

There will also be a membership card that will provide incentives to those who avail themselves of the service. The pricing technique the business will use is the cost-plus method. The cost-plus method is used by figuring out the cost of the service and then adding a little profit. With this, the business will identify its costs and compute the price that should be given to the customers to prevent losses when the business starts its operations.

Technical Study

The operational capacity of a facility is referred to as its productive capability. Companies want to have enough capacity to meet customers' demands now and in the future by providing quality output at the right time. Furthermore, the behavior of costs and revenues, which are influenced by factors like location, operational capacity, and service design, is a concern for both public and private organizations.

The customers will inquire about the services offered by the business. The receptionist will make sure to answer all the questions from the customers, asking them what program (Gymnastic or Cardio Kickboxing) parents want their children to join based on their age to make sure they enroll in the right categories, which are Basic/Simple Movements (6–8 years old), Moderate Exercises (9–10 years old), and Advanced Exercises (11–12 years old). The parents will be given a form to fill out containing information about the children as well as the parents. The payment price will be based on the chosen program, and they can pay it in full or by installment during or before the class. The business will receive the form and give the other copy to the parents. The receptionist will take a photo of parents or guardians with the children for the additional record. The customers will be members after those steps are completely done.

In this step, the children will be assisted right away by the instructor. Those children enrolled in cardio-kickboxing will go to the cardio-kickboxing exercise room to do their warm-up. The children enrolled in gymnastics will go to the gymnastics exercises room for their warm-up, and it will last for 5 minutes only for each program. This is the part where the children will do the exercise based on the program presented by their parents, either gymnastics or cardio-kickboxing exercise. The children can do their exercise for one session (1 hour) per day, including the warm-up and cool-down. The children will do proper exercises for only 50 minutes, and the remaining time will be spent on the next activity. Each session will allocate 5 minutes to cool down. The instructor will guide the children on how to stretch properly so that they will lessen muscle soreness and not injure themselves before the session ends.

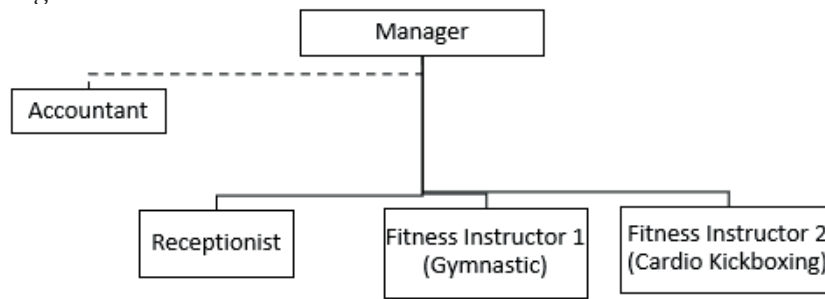
Figure 1
Service Flow Chart



The organizational structure would depend on the size and available resources of the organization; manpower is the most significant factor in this. The proposed business will operate the most preferred form of business organization, which is sole proprietorship. It is the most common and simplest business organization form and the best suited for a small-scale business.

The proposed business describes the hierarchy of authority and the daily responsibilities of the manager and staff. The position, respective job description, and specification of the employees of the proposed business, Children Fitness Center, are described in the following:

Figure 2
Organizational Structure



The proposed business has the coverage length of operation in the first five years of existence as an assumption and will also hire four employees, such as a manager, a receptionist (secretary), and two fitness instructors. The accountant will be hired as an on-call assistant while helping with the financial statement. After five years, additional employee(s) may be hired, depending on the necessity. The management's objective is to acquire and select personnel who are capable of performing the tasks assigned; their ability and competency needed to accomplish the tasks and responsibilities of their work. The success of the business enterprise, whether large or small, depends in part on the effectiveness and efficiency of the employees. The manager will do the major task of decision-making for the development and effectiveness of the company. The receptionist will do the multitasking; the receptionist will function as a secretary, cashier, and entertainer for the customers and visitors. The fitness instructor is in charge of the program, the main service of which is teaching gymnastics and cardio kickboxing.

Strategic Management

Strategic management is a concept in business that focuses on stirring the company's growth through effective management techniques that focus on goal-setting. Through strategic management, the business can identify the goals that must be met as well as the activities that must be done to achieve them. Strategic management can also help in the evaluation of business performance by comparing the actual results of the performance with the expected results. Through this, the business's overall performance can be assessed and improved (Bradley 2016).

Strategic Evaluation

The service business will be evaluated to determine whether the objectives are met. The key result areas and performance indicators will be considered in the evaluation. The following activities will be done for evaluation purposes:

- Employees are undertaking a self-assessment of their weekly performance.
- The manager or supervisor will prepare an evaluation, including the self-assessment report on each employee, to be submitted to the manager monthly.
- Provide an evaluation sheet to the customers regarding the services in the business daily. The summarized results will be submitted to the manager weekly.
- Having a quarterly management review and follow-up on corrective actions

Financial Study

Capital budgeting describes actions relating to the planning and financial management of capital outlays, such as purchasing new equipment and modernizing plant facilities. Capital is an investment concept since it involves a commitment of funds to receive desired future returns (Ray H. Garrison, 1988).

The data in the previous sections was used to project the financial statements of the proposed business. The researchers could project the financial statement for the next five years. The researchers

came up with several major assumptions in preparing the statements needed. Assumptions are carefully mustered to project realistic, conservative, reasonable, and verifiable financial statements.

Capital investment is a fund for the furtherance of the business proposal. There will be PhP 319,772 for the pre-operating expenses, PhP 1,200,457 for the working capital, and PhP 500,880 for the capital expenditures—a total of PhP 2,021,109 for the capital requirements the investor needs to invest.

Cost of Service. This consists primarily of the salaries and wages of employees directly working for the offered service. It also includes the rental cost, which is divided into two parts: service and operation. For the service cost, it is 124 sqm/140 sqm. The total rent for the space is PhP 456,000.00, so PhP 405,840.00 will be allocated for the service cost, and PhP 50,160.00 and depreciation expense will be proportionate to providing the service. There will be PhP 929,653.00 for 2019 total amount for service cost, PhP 983,096.00 for 2020, PhP 996,280.00 for 2021, PhP 1,054,440.00 for 2022, and PhP 1,068,300.00. The computation is based on direct labor and overhead.

Salaries, Wages, and Benefits. The manager will get a monthly salary of ₱18,000, the instructors will get ₱14,000, and the receptionist will get ₱14,420 each month. Regular employees are entitled to mandatory benefits with 13th-month pay. They will also get allowances and bonuses. The accountant will be paid ₱30,000 annually. Salaries, along with the related benefits, allowances, and bonuses, are subject to an annual increase of 2.53% in the average inflation rate. There will be PHP 336,000 in annual cost given to the two instructors for their salaries and wages, and PhP 103,551.00 for their benefits for the 2019 cost of service. The salaries paid to instructors are charged to the service, while the rest are charged to its operation.

Pre-operating expenses. This is the amount incurred for the registration of the business and the preparation of the proposed business for its intended activities. This includes the feasibility study cost of PhP 5,000.00, obtaining business and other permits to register the business that cost PhP 4,093.00, utilities that cost PhP 10,179.00, and promotions that cost PhP 24,000.00, rent expense of PHP 38,000.00 acquisition for the small equipment cost of PhP 238,500.00 and the machinery and equipment cost of PhP 307,880.00. The pre-operating cost amounted to PhP 319,772.00.

Capital Expenditure or Fixed Assets. This is the fixed asset of the proposed business. It included the 1-month advance and the renovation cost. The capital expenditure totaled PhP 193,000.00.

Table 5
Capital Requirements

<i>Pre-Operating Expenses</i>		
Business and Other Permits	4,093	₱ 4,093
Promotion	24,000	24,000
Feasibility Study Budget	5,000	5,000
Small Equipment	238,500	238,500
Utilities	10,179	10,179
Rent Expense	38,000	38,000
		₱ 319,772
<i>Working Capital</i>		
Salaries and Wages	755,040	503,360.00
Employee Benefits	217,377	144,918.27
Training and Development	12,000	8,000.00
Building Rental	456,000	304,000.00
Utilities	122,148	81,432.00
Travel and Transport	1,800	1,200.00

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Advertising and Promotion	24,000	16,000.00
Office Supplies	6,060	4,040.00
Charitable Contributions	24,000	16,000.00
Miscellaneous	11,260	7,506.67
Security Deposits	76,000	76,000.00
Prepaid Rent	38,000	38,000
		₱ 1,200,457
<i>Capital Expenditures</i>		
Machinery and Equipment	307,880	307,880
Leasehold Improvement	193,000	193,000
		₱ 500,880
Total		₱ 2,021,109

Source/s of Funds

The investor is financially capable of supporting the proposed business. The investor bears the initial funding cost. A certificate of agreement is signed by the investor. The certificate is signed upon agreement.

Statement of Comprehensive Income. This statement shows the result of the business operation. This is used by the investor to assess the ability of the business to generate income (Garrison, 1988). Table 6 shows the projected income of the proposed business. The income is increasing annually due to the inflation rate.

Table 6
Projected Statement of Comprehensive Income

	2019	2020	2021	2022	2023
Service Revenue	₱2,246,400.00	₱2,358,720.00	₱2,471,040.00	₱2,583,360.00	₱2,695,680.00
Less: Cost of Service	946,444.23	1,000,312.12	1,013,932.08	1,072,539.04	1,086,856.89
Gross Profit	₱1,299,955.77	₱1,358,407.88	₱1,457,107.92	₱1,510,820.96	₱1,608,823.11
Less: Operating Expenses					
Salaries and Wages	₱ 419,040.00	₱ 429,641.71	₱ 440,511.65	₱ 451,656.59	₱ 463,083.50
Employee Benefits	113,826.20	116,706.00	119,658.66	122,686.03	125,789.99
Training and Development	6,000.00	6,151.80	6,307.44	6,467.02	6,630.63
Building Rental	50,160.00	55,176.00	55,176.00	60,693.60	60,693.60
Utilities	36,644.40	37,571.50	38,522.06	39,496.67	40,495.94
Depreciation and Amortization	20,162.00	20,162.00	20,162.00	20,162.00	20,162.00
Travel and Transport	1,800.00	1,845.54	1,892.23	1,940.11	1,989.19
Advertising and Promotion	24,000.00	25,680.00	27,477.60	29,401.03	31,459.10
Office Supplies	6,060.00	6,213.32	6,370.51	6,531.69	6,696.94
Taxes and Licenses	4,093.00	4,196.55	4,302.73	4,411.58	4,523.20

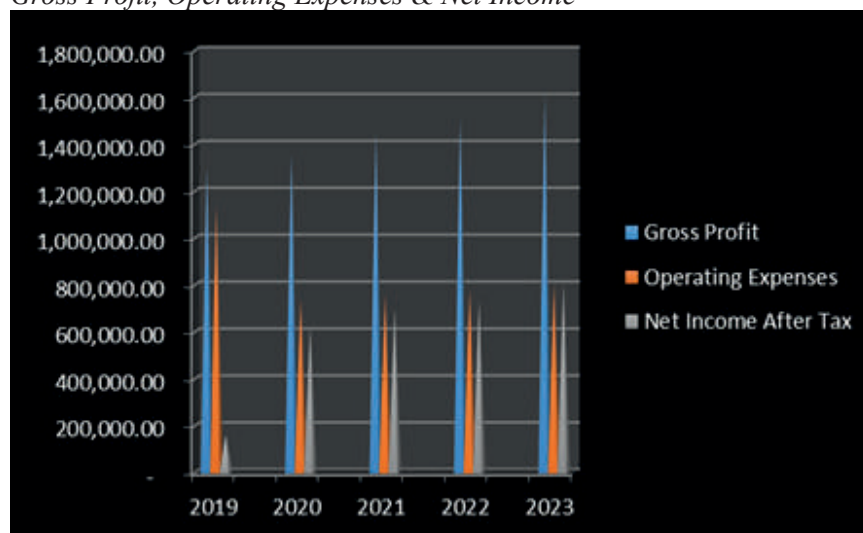
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Charitable Contributions	24,000.00	24,607.20	25,229.76	25,868.08	26,522.54
Small Equipment and Furniture	102,070.00	-	-	-	-
Pre-Operating Costs	319,772.00	-	-	-	-
Miscellaneous	11,260.00	11,544.88	11,836.96	12,136.44	12,443.49
	₱ 1,138,887.60	₱ 739,496.51	₱ 757,447.61	₱ 781,450.84	₱ 800,490.12
Net Income	₱ 161,068.17	₱ 618,911.38	₱ 699,660.30	₱ 729,370.13	₱ 808,332.98

To present the data in the balance sheet graphically, Figure 3 is prepared below. The gross profit will have a significant increase annually, which is healthy because it is higher than the operating expenses and net income after tax. In the starting year, operating expenses are higher due to small equipment, furniture, and pre-operating costs, and the net income after tax will be required in the following years.

Figure 3

Gross Profit, Operating Expenses & Net Income



Statement of Financial Position. This presents the financial position of the business at the end of each year. It is a summary of the business' economic resources, economic obligations, and equity (Bazley et al., 2010).

Presented in Table 7 are the projected statements resulting from its operation. Relative assets, liabilities, and equity increase annually. The current assets are significantly higher than the liabilities, implying that the proposed business will be able to pay its outstanding liabilities.

Table 7

Projected Statement of Financial Position

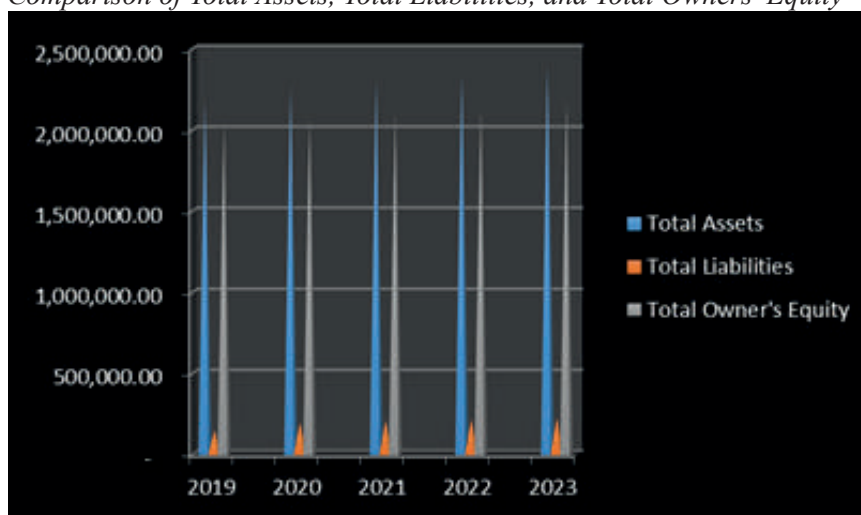
	2019	2020	2021	2022	2023
Current Assets					
Cash	₱ 1,595,314.37	₱ 1,711,337.04	₱ 1,793,349.77	₱ 1,872,285.93	₱ 1,959,719.87
Prepaid Rent	38,000.00	38,000.00	38,000.00	38,000.00	38,000.00
	₱ 1,633,314.37	₱ 1,749,337.04	₱ 1,831,349.77	₱ 1,910,285.93	₱ 1,997,719.87

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Non-Current Assets					
Security Deposit	₱ 76,000.00	₱ 76,000.00	₱ 76,000.00	₱ 76,000.00	₱ 76,000.00
Leasehold Improvements	193,000.00	193,000.00	193,000.00	193,000.00	193,000.00
Machinery and Equipment	307,880.00	307,880.00	307,880.00	307,880.00	307,880.00
Less: Accumulated Depreciation	35,711.43	71,422.86	107,134.29	142,845.29	178,557.14
	₱ 541,168.57	₱ 505,457.14	₱ 469,745.71	₱ 434,034.29	₱ 398,322.86
Total Assets	₱ 2,174,482.94	₱ 2,254,794.19	₱ 2,301,095.48	₱ 2,344,320.22	₱ 2,396,042.73
Current Liabilities					
Accrued Expenses	129,213.78	132,795.14	136,038.53	139,823.77	143,233.35
Withholding Tax Payable	16,106.82	61,891.14	69,966.03	72,937.01	80,833.30
	₱ 145,320.60	₱ 194,686.28	₱ 206,004.56	₱ 212,760.78	₱ 224,066.65
Total Liabilities	₱ 145,320.60	₱ 194,686.28	₱ 206,004.56	₱ 212,760.78	₱ 224,066.65

Figure 4

Comparison of Total Assets, Total Liabilities, and Total Owners' Equity

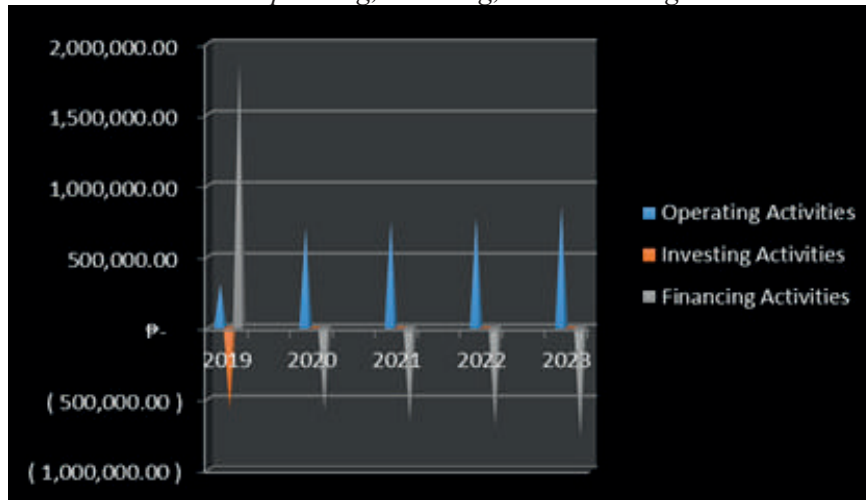


Statement of Cash Flows. This summarizes the operating, investing, and financing activities of the proposed business. It provides information about the cash receipts and cash disbursements of the proposed business during the period. It answers the questions about where the money came from and where it went. The statement of cash flows determines the entity's ability to pay its obligations (Robles & Empleo, 2016).

Table 8 summarizes the cash activities of the proposed business. A significant increase in operating activities is shown. There are zero-peso activities in the succeeding year of the proposed business, denoting that no purchase of equipment is made. A negative activity in financing signifies the withdrawal of the owner.

Table 8
Projected Statement of Cash Flows

	2019	2020	2021	2022	2023
Cash from Operating Activities					
Net Profit After Tax	₱161,068.17	₱618,911.38	₱699,660.30	₱ 729,370.13	₱ 808,332.98
Add: Non-Cash Expenses					
Depreciation Expense	35,711.43	35,711.43	35,711.43	35,711.43	35,711.43
(Inc) Dec in Prepaid Rent	(38,000.00)	-	-	-	-
Inc (Dec) in Accrued Expenses	129,213.78	3,581.35	3,243.39	3,785.25	3,409.58
Inc (Dec) in Withholding Tax Payable	16,106.82	45,754.32	8,074.89	2,970.98	7,896.29
	304,100.20	₱ 703,988.48	₱ 746,690.01	₱ 771,837.78	₱ 855,350.28
Cash Used in Investing Activities					
Purchase of Property and Equipment	(₱500,880.00)	₱ -	₱ -	₱ -	₱ -
Security Deposit	(₱76,000.00)	-	-	-	-
	(₱ 576,880.00)	₱ -	₱ -	₱ -	₱ -
Cash from Financing Activities					
Investments	2,021,108.93	-	-	-	-
Withdrawals	(153,014.76)	(587,965.81)	(664,677.29)	(692,901362)	(767,916.34)
	1,868,094.17	(₱ 587,965.81)	(₱ 664,677.29)	(₱ 692,901362)	(₱ 767,916.34)
Net Cash Flow	₱ 1,595,314.37	₱ 116,022.67	₱ 82,012.72	₱ 78,936.16	₱ 87,433.94
Cash, January 1	₱ -	₱ 1,595,314.37	₱ 1,711,337.04	₱ 1,793,349.77	₱ 1,872,285.93
Cash, December	₱ 1,595,314.37	₱ 1,711,337.04	₱ 1,793,349.77	₱ 1,872,285.93	₱ 1,959,719.87
	₱ 1,595,314.37	₱ 1,711,337.04	₱ 1,793,349.77	₱ 1,872,285.93	₱ 1,959,719.87

Figure 5*Cash Flows Used in Operating, Investing, and Financing Activities*

Capital budgeting is the process of determining which long-lived investment projects that a firm should undertake. The researchers were able to compute the NPV, IRR, and benefit-cost ratio. The hurdle rate of 10% is based on the investor's statement; if the proposed business is less than 10%, the investor would not invest in the proposed business. It has a positive NPV of 485,342.28, which is the result of NPV Future Cashless Initial Cash Investment, an IRR of 17%, and a benefit-cost ratio of 1.24, which is the result of NPV Future Cash of PhP 2,506,451.21 divided by the Initial Investment of PhP 2,021,108.93. The NPV test suggests accepting a project that has a positive NPV; the IRR accepts the project that has a result greater than the hurdle rate; the hurdle rate is 10%; and the benefit-cost analysis accepts the project that has a ratio of 1 and above. Thus, on this test, the proposed business is deemed to be acceptable.

This is used to indicate the profitability and performance of the business. The profitability ratio includes the return on sales, the return on investments, and the gross profit ratio. The return on sales in the first year is 7.17%, which indicates the rate of profit for every sale. The return on investment in the first year was 7.94%. It also means that 7.94% of the investment will be paid back in the first year. The gross profit will be 57.87% in the first year, which means out of the sales, 57.87% will be the profit before deducting the operational costs. Profitability ratios increase annually, so the proposed business will operate efficiently and effectively.

Liquidity Ratios are important to know whether the proposed business will be able to meet its liabilities. Thus, a liquidity ratio will be used. For this study, the liquidity ratio is composed of the current ratio, the acid test ratio, and the inventory turnover. The result of the current ratio is the number of times its current ratio will be able to pay its existing liabilities. The table shows that there will be 11.24 times that the proposed business can pay the liabilities for 2019, 8.99 times for 2020, 8.89 times for 2021, 8.98 times for 2022, and 8.92 times for 2023. The operating leverage dictates how much of the minimum operation or pricing the business should undertake to break even on costs. The researchers were able to compute the break-even volume analysis and the break-service revenue analysis. The researcher would obtain the break-even service revenue analysis by getting the total fixed cost and then dividing it by the contribution margin. There will be a total of PhP 2,180,537 for the year 2019, PhP 1,653,709 for 2020, PhP 1,674,585 for 2021, PhP 1,755,028 for 2022, and PhP 1,778,144 for 2023.

The operating leverage dictates how much of the minimum operation or pricing the business should undertake to break even on costs. The researchers were able to compute the break-even volume analysis and the break-service revenue analysis. The researcher would obtain the break-even service revenue analysis by getting the total fixed cost and then dividing it by the contribution

margin. There will be a total of PhP 2,180,537 for the year 2019, PhP 1,653,709 for 2020, PhP 1,674,585 for 2021, PhP 1,755,028 for 2022, and PhP 1,778,144 for 2023. The result of the breakeven volume analysis shows the minimum number of units to be produced to at least have no profit or loss. The breakeven service revenue analysis suggests the minimum amount of service to be rendered by the proposed business to break even. Operating below this analysis would result in significant losses. There will be 5,694 volumes to break even in 2019, 4,318 for 2020, 4,373 for 2021, 4,583 for 2022, and 4,643 for 2023.

The investor would be more interested in the capacity of the proposed business to generate returns and its capability to pay back its initial investments. Thus, the test of return on capital investment is essential in financial analysis. It includes the results of the average rate of return and payback period. The result of ARR is the percentage of the average investment to the average net income, which means 60% represents income from its average initial investment. It only needs 3.59 years before recovering all its investment costs.

Socio-Economic Responsibility

Social responsibility is how people and organizations act ethically, and sensitively to social, cultural, economic, and environmental issues. Being socially responsible helps individuals, organizations, and governments positively influence development, business, and societies that contribute positively to bottom-line results (Enevoldson, 2016, cited in 123Helpme, n.d.). Social contentment, maximizing economic performance for shareholders' satisfaction, and social responsibility for the benefit of society as a whole are issues that company concerns are centered upon (Fernandez, 2015).

The proposed business will be of help to customers who have children from ages six to twelve by providing a place where their children will be able to have activities and receive healthy advantages while at the same time helping them to engage less on electronic devices. Considering that the proposed business is a service-type business, the benefits to the customers are intangible. Intangible benefits are immeasurable; therefore, they cannot be quantified.

Employees of Happy Fit will receive monthly compensation as well as mandatory benefits. The owner who will invest in the proposed business is expected to receive profits (or losses) after every business operation. The proposed business plans to conduct a retreat to the orphanage center every year. This includes donations. The cost will be included in the business miscellaneous expenses.

As a contribution to the church and its mission, the proposed business will give tithes equivalent to 10% of the business profit. Assuming the employees are Seventh-day Adventists, they will give tithes equivalent to 10% of their income. According to the Holy Bible, Deuteronomy 14:22–26 says, “Make an offering of ten percent, a tithe, of all the produce that grows in your fields year after year.” And the proposed business will be making a charitable contribution.

The local economy is supported by providing support for parents and local employers; it may help the government reduce the unemployment problem through job offerings, and the proposed project will also contribute to the government by giving tax.

Conclusion and Recommendation

Based on the study's findings in marketing, operations, organization and human resources, strategic management, financial, and social responsibility, the researchers conclude that the children's fitness center is feasible and viable for the proposed project to succeed. The strategic study shows the plans and techniques to make the proposed business feasible and viable. The proposed business will also contribute socially based on socio-economic responsibility. With the study's conclusion, the researchers confidently recommend the immediate implementation of the establishment of the Happy Fit Children Fitness Center in Puting Kahoy, Silang, Cavite.

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