



## Micro Entrepreneurs' Leadership Skills and Employee Productivity: A Structural Equation Model Approach

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### Abstract

The study of significant differences, relationships, and structural equation models evaluates the correlations between leadership skills and employee productivity of those in the food industry under the microenterprise category in Bulacan, Philippines. The research utilized the Mann-Whitney U test and Kruskal-Wallis test to determine the significant difference in leadership skills and employee productivity when grouped according to the profile of respondents. Spearman's rank correlation coefficient was utilized to analyze the relationship between leadership skills and employee productivity. Moreover, the research utilized structural equation modeling techniques to analyze the correlations among the indicators of leadership skills and employee productivity. Research instrument with rating scales and a random sampling method was applied. The model fit, reliability, and validity were analyzed using confirmatory factor analysis. The result showed that there is a strong level of correlation between leadership skills and employee productivity. Finally, Technical Skills, Work Unit Effectiveness, and Work Quality are among the indicators of technical skills and employee productivity that are correlated as analyzed structural model and path analysis. Future research should be qualitative or mixed method to delve deeper into for a richer qualitative interpretation, and cohort or longitudinal research should be done in order to study this relationship in the long run.

**Keywords** *Structural Equation Modeling, Leadership Skills, Food Industry, Employee Productivity*

### INTRODUCTION

According to the Philippine Statistics Authority, an enterprise is categorized as a micro-enterprise if it employs less than 10 workers (Jacildo et al., 2016). Therefore, micro-entrepreneurs in the food industry have a total of 1-9 employees and are actively engaged in the day-to-day operations of the food industry. This study aims to answer research questions such as: What is the profile of entrepreneurs in terms of age, sex, highest level of education, family size, average annual income, type of food service industry, type of employment, and capitalization structure? What is the level of leadership skills manifested by entrepreneurs that may influence employee productivity in terms of technical skills, conceptual skills, interpersonal skills, emotional intelligence skills, and social and intelligence skills? What is the level of employee productivity in terms of work output, work effectiveness, and work quality? Is there a significant difference in leadership skills when grouped according to profile? Is there a significant difference in the productivity of microenterprises' employees when grouped according to profile? Is there a significant relationship between microentrepreneurs' leadership skills and employee productivity? Moreover, is there a correlation between the indicators of leadership skills and employee productivity?

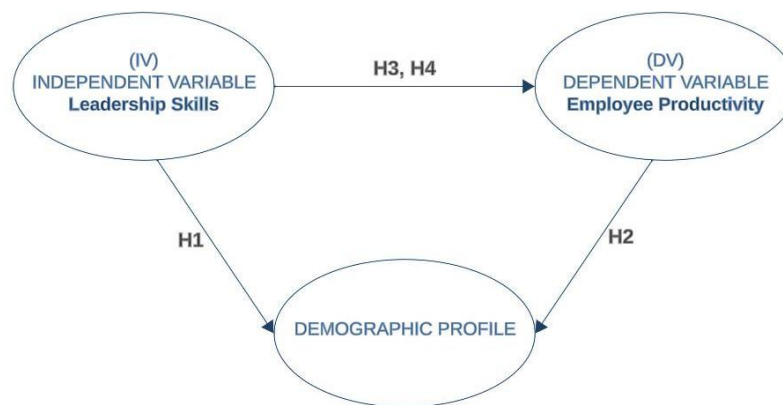
Over time, numerous researchers have investigated the concept of leadership to comprehend and enhance the inherent benefits of effective leadership; these investigations have resulted in the development of numerous delineations of leadership (Mukonga & Awolusi, 2019; Olatunji & Awolusi, 2019). One of the prevailing concepts of leadership posits that leadership is the skilful practice of achieving objectives via individuals' effective mobilization and guidance. A



consistent aspect of leadership is the ability of leaders to motivate their followers and guide their endeavours towards the achievement of a particular goal. This is true in the case of microenterprises; paying attention to leadership techniques, particularly in a business organization, is highly vital and necessary.

A research gap has been observed in the investigation of the relationship between leadership and employee performance, specifically in terms of productivity. Prior research has primarily focused on examining various styles rather than specific skills. Nevertheless, there was a lack of comprehensive study regarding the significance of specific leadership skills on employee productivity. The present research becomes imperative and timely since MSMEs contribute significantly to the nation's economic growth, trade, and employment. The economic performance of micro-enterprises has been hampered by low levels of productivity, according to [Borazon \(2018\)](#).

## LITERATURE REVIEW



**Figure 1.** Research Paradigm

Figure 1 presents the Conceptual Framework or the paradigm of the study that depicts the Independent Variable (IV) and the Dependent Variable (DV) correlation model. The independent variable is Leadership Skills, while the dependent variable is Employee Productivity. It amplifies the null hypotheses stating that: (H1) there is no significant difference in leadership skills when grouped according to profile; (H2) there is no significant difference in the productivity of employee when grouped according to profile; (H3) there is no significant relationship between leadership skills and employee productivity; and (H4) there is no correlation among the indicators of leadership skills and employee productivity.

### *Robert Katz's Skills-Based Theory of Leadership*

This study is founded on Robert Katz's Skills-based Theory of leadership, which recognizes what assets comprise an effective leader, just as one can identify a leader who best fits the job in an organization ([Katz, 1955](#)). Many pose the question, are leaders conceived leaders, or do they need to experience a lot of aptitudes and tests to be given that title? Every notable leader has invariably assumed the position of a follower prior to assuming a leadership role. It is not feasible for an individual to enter an organization with the intention of immediately assuming a leadership position, as this necessitates the ability to guide peers, subordinates, or superiors. The individual must possess the requisite skills and experience to be considered for a leadership role.

Leaders possess the capacity to exert a significant impact on their subordinates, hence

enhancing their productivity. Leadership skills are important, especially in the collaborative endeavours of all individuals within an organization. Effective leaders possess the necessary skills to effectively leverage their staff in productive and collaborative endeavours. Lack of skills affects employee performance (Shiferaw, 2022). However, this shift deviates from the conventional approach of perceiving leadership talents as possessions, focusing instead on the interpersonal dynamics among individuals involved in collective endeavours.

According to Rowe (2013) and Singh (2008), leaders in an organization must possess a range of skills, including technical, human, and conceptual skills. Leaders can apply these skills to effectively communicate the vision and objectives to their subordinates, thereby inspiring and incentivizing them to actively pursue these goals for the benefit of both parties: business owners, otherwise referred to as entrepreneurs and employees. Leaders can leverage their technical and conceptual skills to assess the advantages and disadvantages of many alternatives and arrive at well-founded decisions that align with the business's best interests. In order to effectively fulfil the responsibilities of a higher-level leadership role, it is imperative for individuals to possess a heightened level of conceptual skills, as opposed to a hands-on leader who would benefit more from technical skills. A leader can encourage individuals to proactively assume responsibility and engage in innovative endeavors.

Riggio (2014) delineated some of the ideal skills of a leader as one who possesses the following attributes: social intelligence, interpersonal, and emotional. These three skills belonged to the top three among other essential skills of a leader. Fianko et al. (2020) states that social intelligence (SI) is inadequately comprehended and under-researched. SI is quite broad; however, it can best be viewed in terms of understanding social situations and dynamics and the capacity to be effective in a variety of social circumstances. Hence, it is crucial for entrepreneurs to possess leadership skills. The ability to effectively guide a team through the various obstacles encountered during initiating and expanding a novel enterprise is a crucial attribute for entrepreneurs. In addition, they must possess the capability to inspire and encourage individuals, fostering belief in their overarching goal. The attainment of success in the realm of business is rendered challenging in the absence of robust leadership skills.

#### *Leadership In Relation to Productivity*

The concept of leadership in relation to productivity is a relatively recent development that encompasses a more comprehensive understanding of leadership. This expanded perspective includes a diverse range of individuals from various backgrounds who assume positions of authority and engage in collaborative efforts with others to achieve economic outcomes within organizations and communities (Burns et al., 2015).

Haekal (2021) defined productivity as something every micro-business enterprise strives for by utilizing resources more efficiently. The former also presented strategies for fostering sustained productivity within the context of commercial operations. Initially, leaders or entrepreneurs must commence their journey from a position of authority, setting a precedent that is worthy of admiration and emulation. Implementing this practice is vital to preserve a culture characterized by continuous enhancement and unwavering productivity.

Additionally, it is advisable to employ the technique of mapping one's processes and data. To illustrate, the attainment of sustainable production necessitates the systematic arrangement and utilization of data to make real-time decisions. On some occasions, this entails adopting a holistic approach to examine the overall structure and scope of one's enterprise in order to identify constraints within the supply chains and discover unexplored market opportunities. The skill of a leader to maintain productivity is contingent upon their comprehension of its manifestations and the methodologies employed to quantify it, as productivity implies increased output and

substantially influences the output of a production process ([Choudhury et al., 2021](#); [Camila, 2021](#)). It is also important to note that a leader who consistently offers feedback and coaching can assist employees in recognizing and resolving their shortcomings, as well as cultivating the skills they need to enhance their productivity. [Khan and Abdullah \(2019\)](#) also emphasized that a leader must be endowed with skills, particularly those pertaining to technical areas since productivity is contingent upon them.

### *Leadership Skills*

Leaders have the potential to demonstrate influential skills that can enhance employee productivity. One of these pertains to technical skills. One widely recognized theoretical framework for defining technical expertise is [Katz's \(1955\)](#) three-skill approach. This approach encompasses the knowledge and abilities related to procedures, methods, and strategies that assist leaders in comprehending certain subjects or addressing problems. These attributes will provide leaders with precise information pertaining to the organizational processes and employee characteristics ([Jaqua & Jaqua, 2019](#); [Ruch & Hershauer, 1974](#)). [Warren et al. \(2018\)](#) outlined the technical skills that leaders possess, such as the ability to facilitate a group or perform technical outdoor skills. These skills serve as the foundation for motivation, innovation, and tactical or strategic planning, which also results in positive business outcomes ([Omeihe et al., 2023](#); [Farahnak et al., 2023](#)).

Additionally, it is important to acknowledge that leaders with conceptual abilities demonstrate a high level of proficiency in discussing the conceptual foundations that influence an organization and the complexities associated with them ([Northouse, 2016](#)). Leaders must possess conceptual skills in order to actively engage in the processes of development, organization, and decision-making. In order to maximize employee productivity, leaders must demonstrate a comprehensive understanding of the organization's operations and functions, demonstrating proficiency in conceptual skills.

Moreover, leaders are equipped with interpersonal skills that encompass the aptitudes necessary for comprehending the requisite competencies to coordinate and synchronize activities and endeavours among themselves and others. The aforementioned assertion is substantiated by the research conducted by [Wolf \(2018\)](#), whereby the identification of essential skills required by operations managers to proficiently guide their staff was undertaken. The findings indicated that one of the most significant competencies discovered is interpersonal skills, alongside negotiating and persuasion skills. Their effectiveness as leaders resulted in earning an income and, reliant upon the labour and skills of people, can provide some form of income ([Abdurakhmanova et al., 2020](#)).

From a scientific perspective, emotional intelligence can be defined as the capacity to effectively sense and comprehend both personal and interpersonal emotions, as well as the ability to navigate and regulate these emotions. The attributes such as optimism, initiative, and self-confidence that are commonly associated with it ([Ovans, 2015](#); [Mburu, 2020](#)) are not always encompassed under its description. EI pertains to leaders with emotional intelligence who are better able to comprehend and control their emotions. In addition, it aids in analyzing one's own behaviour and relationships with others, as it is related to their work performance ([Emmadi, 2017](#); [Suhairy et al., 2022](#)). Leaders who possess a heightened level of emotional intelligence demonstrate a keen awareness of their own emotions and exhibit adeptness in managing and articulating them. According to [De Cock et al. \(2020\)](#), individuals possess the ability to effectively perceive and regulate the emotions of others, hence enabling them to manipulate these emotions in order to accomplish specific objectives strategically. In fact, according to [Najafpour et al. \(2020\)](#) and [Anwar et al. \(2017\)](#), emotional intelligence increases with age and supervisory experience. The function of leaders' social intelligence (SI) in effectively managing personnel is significant. Social perceptiveness is a crucial attribute that enhances leaders' capacity to comprehend the challenges

and requirements of both the firm and its workforce. Social intelligence (SI), as defined by [Katou et al. \(2021\)](#), refers to an individual's capacity to understand and interpret the emotions, cognitive processes, and actions of both oneself and others in interpersonal situations and to respond in a manner that is suitable and effective based on their comprehension.

#### *Productivity and Its Variables*

The workforce is also a factor of production, and productivity is an indispensable variable for any society to achieve economic development ([Bashir, 2017](#); [Bechtold et al., 1984](#)). The environment plays a central role in productivity. A salubrious work environment or organizational structure is a requirement that all employees must have. When organizations exist in which individual and business goals are met, it is generally assumed that there exists a notable degree of collaboration and concord between employers and employees, whereby an individual's productivity is contingent upon the fulfilment of their distinct needs like food, clothing and housing ([Gupta et al., 2022](#); [Rao et al., 2022](#)). Employees often must be responsible for most of the required work; therefore, inadequate monitoring of workforce productivity reduces the business's efficacy and efficiency ([De Menezes, & Escrig, 2019](#)). Productivity encompasses work effectiveness and quality (meeting technical and customer specifications). In addition to the former, managers' inability to attend to workers' needs and expectations has a detrimental impact on both the quality of work produced and the overall morale of the workforce ([Nursiti et al., 2022](#)). Productivity measurement includes work output and resource utilization ([Brynjolfsson et al., 2020](#); [Harris, 1994](#); [Ruch & Hershauer, 1974](#)). Productivity, in terms of work output, refers to the work performed by employees to advance specific goals and generate business results. If employees worked productively and efficiently for 100 percent of their time, their output would be 100 percent productive.

## RESEARCH METHOD

**Table 1.** Demographic Profile of Respondents

<i>Sex</i>	
Male	129
Female	172
<i>Age</i>	
16 to 29 years old	92
30 to 39 years old	43
40 to 49 years old	107
50 years old and above	59
<i>Highest Level of Education</i>	
High School Graduate	173
College Degree	83
Graduate Degree	33
Others	11
<i>Household Size</i>	
Below 5 household members	141
5 to 10 household members	135
More than 10 household members	25
<i>Average Yearly Income</i>	
We are pre-revenue	26

Less than ₱1,000,000	142
₱1,000,000 - ₱2,900,000	71
₱3,000,000 - ₱9,900,000	30
₱10,000,000 - ₱14,900,000	8
₱15,000,000 - ₱19,900,000	11
₱20,000,000 - ₱49,900,000	8
Above ₱50,000,000	5
<i>Type of Food Service Industry</i>	
Full-service restaurants	21
Fast food restaurants	62
Limited-service restaurants	51
Mobile food service	6
Cafe', bars, street stalls/kiosks	51
Beverage service	28
Event catering service	37
Online food service	45
<i>Type of Employment</i>	
Full-time	247
Part-time	42
Seasonal	12

After cleansing and screening, 301 samples were put into the descriptive and inferential statistical analysis. For the descriptive part, as shown in Table 1, most of the sample were female (57.14%), 40 to 49 years old (35.54%), high school graduate (57.47%), below five household members (44.85%), average yearly income of less than ₱1,000,000 (47.17%), and fast-food restaurants as a type of food industry (20.59%).

### *Sampling*

The demographic part of the questionnaire included sex, age, highest level of education, household size, average yearly income, type of food service industry, and type of employment. Leadership skills was measured using a 5-item rating scale from Hofstrand (2020) in measuring leadership skills (SI and IS skills). An example item was: "Listen to others who may have a better method for accomplishing a task." Employee productivity was measured on a 5-item rating scale by the National Research Council (1994). An example item was "employee contributes to the company's goals".

The goal was to collect survey responses from 301 entrepreneurs in the food industry in Bulacan, Philippines, on August 8, 2022 - October 10, 2022, between 9:00 A.M. and 12:00 P.M. Microentrepreneurs took the survey in a small office next to the cash register and took approximately 5 minutes each to fill in the survey anonymously. Here, a micro-entrepreneur was defined as a person who owned and controlled the food enterprise on the day they took the survey. In total, 301 microentrepreneurs responded.

### *Hypothesis*

H1: There is no significant difference in leadership skills when grouped according to age, sex, the highest level of education, household size, average yearly income, type of food service industry, and type of employment.

H2: There is no significant difference in the productivity of microenterprises' employees when grouped according to age, sex, highest level of education, household size, average yearly income, type of food service industry, and type of employment.

H3: There is no significant relationship between micro entrepreneurs' leadership skills and employee productivity.

H4: There are no correlations between leadership skills and employee productivity indicators.

## **FINDINGS AND DISCUSSION**

### **Significant Difference in Leadership Skills When Grouped According to Profile**

There is a significant difference in micro food industry entrepreneurs' leadership skills when grouped according to average yearly income. The p-value obtained for technical, conceptual, interpersonal, emotional intelligence and social intelligence skills was 0.00. There is also a significant difference in micro food industry entrepreneurs' leadership skills (conceptual skills and social intelligence skills) when grouped according to the type of food service industry. The findings of the study also supported that there is a significant difference in the leadership skills (conceptual, technical, interpersonal, and emotional skills) of micro food industry entrepreneurs when they are classified according to their employment (full-time/part-time entrepreneur/business). The relative p-values for the leadership skills were 0.02, 0.46, 0.03, and 0.03. With regard to the comparison of leadership skills when grouped according to the highest level of education, the p-values computed for conceptual and technical skills are 0.00 and 0.05. To such a degree, there is a significant difference in their leadership skills (conceptual and technical skills) based on the highest level of education.

### **Significant Difference in The Productivity of Microenterprises' Employees When Grouped According to Profile**

In terms of sex, there is a significant difference in work output by objectives among micro food industry entrepreneurs based on sex (p-value 0.01). There is also a significant difference in employee productivity of micro food industry entrepreneurs when grouped according to age. The p-value obtained for work unit effectiveness was 0.01. In terms of average yearly income, it indicated a p-value of 0.00 for both work output by objectives and work unit effectiveness. There is a significant difference in work output by objectives and work quality of micro food industry entrepreneurs when they are classified according to the type of food service industry. The relative p-values for the employee productivity variables were both 0.00.

With regard to the type of employment (full-time/part-time entrepreneur/business), the p-values computed for work unit effectiveness and work quality were 0.01 and 0.00. Therefore, a significant difference exists between the previously indicated employee productivity variables dependent on employment type. Furthermore, when employee productivity is grouped according to the highest level of education, there is also a significant difference in work output by objectives among micro food industry entrepreneurs based on the highest level of education due to the p-value obtained of 0.04.

### **Significant Relationship Between Micro Entrepreneurs' Leadership Skills and Employee Productivity**

The p-values for the relationship between leadership skills and employee productivity were 0.00, 0.05, and 0.05, respectively. The result concludes that there is a positive and significant relationship between (a) interpersonal skills and work output, (b) interpersonal skills and work



quality, and (c) emotional intelligence skills and work quality.

### Correlations among the indicators of Leadership Skills and Employee Productivity

Table 2 shows descriptive statistics for scales, including means and standard deviation. In almost every inferential statistic method, the normality of variables should be expected. Skewness and kurtosis of each variable should not exceed plus or minus 2. Moreover, the correlation among factors was all statistically significant with a strong level of correlation.

**Table 2.** Descriptive statistics for scale, skewness, kurtosis, and correlation matrix

Scale	<i>M</i>	<i>SD</i>	<i>N</i>	Skew	Kur	TS	WUE	WQO
TS	4.72	0.21	301	-0.160	-0.070	1	0.60	0.97
WUE	4.64	0.22	301	-0.262	-0.362	0.60	1	0.63
WQO	4.76	0.36	301	-0.037	-0.538	0.97	0.63	1

Note: TS = Technical Skills, WUE = Work Unit Effectiveness, WQO = Work Quality Output

The confirmatory factor analysis was analyzed to check the fitness of the empirical data. This included a structural validation of the model on each latent variable to analyze the relationship among manifest variables by utilizing correlation. The several presumptions of both absolute fit and relative fit indices criterion were described in Table 3.

**Table 3.** Fit Indices criterion

Fit Indices	Criterion	Source
Chi-Square ( $\chi^2$ )	Not significant	<a href="#">Hair et al. (2013)</a>
Relative Chi-square ( $\chi^2/df$ )	Less than 3	<a href="#">Hair et al. (2013)</a>
Goodness-of-Fit Index (GFI)	Greater than .90	<a href="#">Chau (1997)</a>
Comparative Fit Index (CFI)	More than .90	<a href="#">Bentler (1990)</a>
Tucker-Lewis Index (TLI)	More than .90	<a href="#">Browne and Cudeck (1993)</a>
Root Mean Square Error of Approximation (RMSEA)	Less than .08	<a href="#">Byrne (2010)</a>
Standardized Root Mean Square Residual (SRMR)	Less than .08	<a href="#">Hair Jr. et al. (2009)</a>

In accordance with Table 4 and Figure 2, confirmatory factor analysis model fit indices were presented, and visualization of the measurement model was portrayed.

**Table 4.** Confirmatory factor analysis model fit indices

Model	$\chi^2$	df	<i>p</i>	$\chi^2/df$	CFI	TLI	GFI	RMSEA	SRMR
CFA	42.44	17	0.00	2.50	0.93	0.90	0.97	0.07	0.05

As per measurement model fit indices, the model was considered to fit with empirical data as almost all fit indices passed the criteria except the Chi-square test since this index is normally sensitive to large sample sizes. In accordance with Table 5, confirmatory factor analysis estimated and standard coefficients, the reliability coefficient of Cronbach's Alpha, composite reliability, convergent validity and discriminant validity were presented.



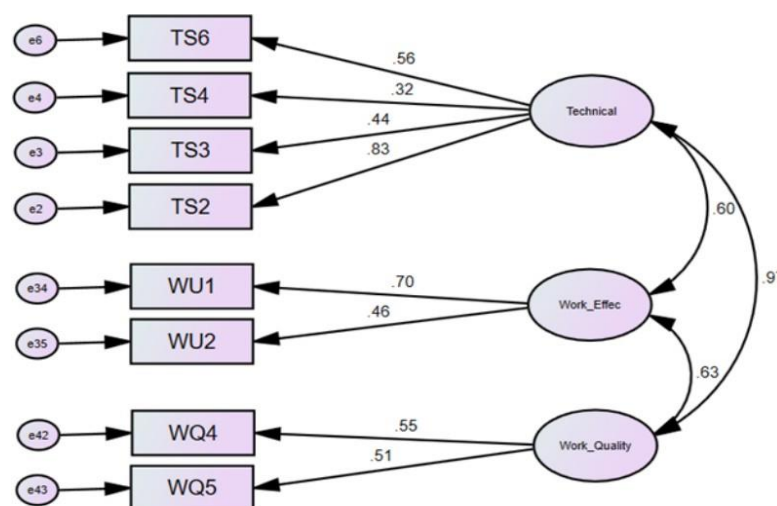
**Table 5.** Confirmatory factor analysis, reliability, convergent validity and discriminant validity

Construct	Estimate	Standard	Alpha	CR	AVE	MSV	ASV
Technical Skills							
TS 6	1.00	0.56	0.78	0.74	0.73	0.54	0.33
TS 4	0.47	0.32					
TS 3	0.60	0.44					
TS 2	1.08	0.83					
Work Unit Effectiveness							
WU 1	1.00	0.70	0.73	0.71	0.75	0.40	0.35
WU 2	0.73	0.46					
Work Quality							
WQ 4	1.00	0.55	0.79	0.74	0.78	0.44	0.28
WQ 5	0.96	0.51					

All confirmatory factor analysis coefficients were statistically significant. Cronbach's Alpha was used to evaluate the reliability of the internal consistency of the questionnaire, and it was found that all parts of the questionnaire were considered reliable. The composite reliability score was also calculated to check reliability. Both the standard minimum threshold for Cronbach's Alpha and composite reliability was 0.7 or higher to indicate proper reliability.

Convergent validity means the extent to which indicators of a construct converged or shared a high level of proportion of variance in common (Hair et al., 2013). Convergent validity could be calculated via factor loadings and average variance extracted (AVE). The standard minimum threshold for average variance extracted was 0.5 or higher, indicating the adequacy of convergence.

After the confirmatory factor analysis, structural regressions were fitted and visualized. This model was considered a small model with only 3 latent variables: Technical Skills, Work Unit Effectiveness, and Work Quality. The results of the analysis and model fit indices and factor loadings showed that the structural model was also in concordance with the empirical data, according to Table 5 and Figure 2.

**Figure 2.** Measurement model

In accordance with the analysis result mentioned above, the confirmatory factor analysis was conducted, and a structural equation model with path analysis was developed, and both were moderately fitted with empirical data. The unique selling point of this research was the context of the study derived from total samples of entrepreneurs in the food industry under microenterprise. The study shed light on a significant relationship between leadership skills and employee productivity. Among the indicators of leadership skills and employee productivity, an analysis shows that there are correlations between technical skills, work unit effectiveness, and work quality. These findings were interpreted similarly to the previous study by [Khan and Abdullah \(2019\)](#). Moreover, according to a previous study, this evidence shows that productivity and skills are significantly correlated, particularly when technical training is provided.

## CONCLUSIONS

These are the conclusions gathered based on the findings presented above. A higher percentage of female entrepreneurs aged 40 to 49 years have a family size of less than five members. The respondents had an average yearly income that is below ₱1,000,000. The micro-entrepreneur respondents are engaged in the operation of a fast-food restaurant and are actively pursuing entrepreneurship on a full-time basis. Fifty percent of the respondents were high school graduates.

There were significant differences between (a) interpersonal, emotional intelligence, social intelligence and age; (b) technical, conceptual, interpersonal, emotional intelligence, social intelligence and the type of food service industry; (c) technical, conceptual, interpersonal, emotional intelligence, social intelligence and average yearly income; (d) technical, conceptual, interpersonal, emotional intelligence, social intelligence and type of food service industry; (e) conceptual, technical, interpersonal, and emotional skills and employment; (f) conceptual and technical and highest level of education.

There were significant differences between (a) work output by objectives and sex, (b) work unit effectiveness and age, (c) work output by objectives and average yearly income, (d) work unit effectiveness and average yearly income, (e) work output by objectives and type of food service industry, (f) work quality and type of food service industry; (g) work unit effectiveness and type of employment, (h) work quality and type of employment, (i) work output by objectives and highest level of education.

The study found that there was a positive, significant relationship between (a) interpersonal skills and work output, (b) interpersonal skills and work quality, and (c) emotional intelligence skills and work quality. According to the structural equation model in Figure 2, latent variables technical skills, work effectiveness, and work quality are correlated.

## LIMITATION & FURTHER RESEARCH

This study was no exception to previous research conducted on leadership and productivity. The following are the study's limitations. Firstly, this study was limited to the food industry under the MSME category in the province of Bulacan, Philippines, since the researcher's family home and workplace are within the province. The non-inclusion of the food industry under the MSME category, more specifically those with more than nine (9) employees, is also stated in the second and third categories as to the number of employees. They were not taken as respondents in the study.

The sample population was limited to MSME owners with 1-9 total employees and those involved in the daily operations of the food industry. Further, marital status was not included in the demographics because the definition of family structures (single-parent households, a parent who has never married, etc.) may lead to differing results. As a substitute, family size or the number of

household members was selected as part of the overall demographic characteristics.

The results of this study may be biased based on who answers the question. Self-reported data frequently tends to possess minimal reliability since it is susceptible to self-reporting bias, primarily because this approach necessitates individuals to respond to the inquiries posed by the researcher while minimizing any form of internal or external interference.

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