

The moderating effect of entrepreneurial ecosystem on the relationship between entrepreneurial skill and entrepreneurial success among microfinance enterprises in Region XI

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Abstract

The study explored the interplay of entrepreneurial skills and entrepreneurial ecosystem, and their effect on microfinance enterprises within the Davao Region, Philippines. Using adapted survey questionnaires, a representative sample of 300 microfinance enterprise owners were randomly selected to participate in this research. The findings unveiled a robust perception among owners regarding the high levels of the three key constructs under investigation. Notably, the study established a substantial and favorable correlation between entrepreneurial skills and entrepreneurial success. Moreover, it highlighted a similarly positive and noteworthy relationship between the entrepreneurial ecosystem and entrepreneurial success. Furthermore, employing hierarchical logistic regression allowed for an in-depth exploration of the moderating effect of the entrepreneurial ecosystem. The study unearthed a profoundly significant moderation on the relationship between entrepreneurial skills and success, with more conducive ecosystems indicating a stronger correlation between entrepreneurial skills and success. In essence, the study underscores the vital importance of both entrepreneurial skills and the broader ecosystem within which microfinance enterprises operate. It emphasizes that while entrepreneurial skills are crucial, the supportive entrepreneurial ecosystem significantly amplifies their contribution on achieving entrepreneurial success in the context of microfinance firms in Davao Region.

Keywords: *entrepreneurial ecosystem, entrepreneurial skills, entrepreneurial success, micro enterprises*

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Introduction

Entrepreneurial success can be categorized as the achievement of a person's entrepreneurial goals, whether they are related to financial gains, innovation, social impact, or personal fulfillment (Dalal, 2017). As various authors have emphasized, the pursuit of entrepreneurial success is a complex endeavor. Hasan (2022) highlighted the formidable challenges of launching a thriving company, citing high failure rates, unpredictable financial landscapes, uncertainties, and intense competition. Miller (2022) studied the specific reasons behind microbusiness failures, pointing to deficiencies in entrepreneurial skills such as cash flow management, delegation capabilities, and sales and marketing strategies. According to Lee et al. (2023), these failures have a significant negative impact on entrepreneurs' ability to explore future opportunities financially, socially, and emotionally. Despite diverse perspectives and analyses, the prevalent issue remains the formidable barriers and detrimental consequences that hinder entrepreneurial success.

COVID-19 led to increased business opportunities and economic recovery, but delays in customer payments and product shortages in 18 out of 47 economies made it difficult for business owners to launch a company in 2021. In the Philippines, 259,707 businesses were permanently closed due to price increases and product shortages, impacting the success of micro, small, and medium-sized enterprises. In a similar manner, Abrugar (2014) stressed that businesses, particularly micro, small, and medium-sized ones, fail to last for a long time since some entrepreneurs are not genuinely committed to their businesses and deal with problems without government support, which may affect the success of an enterprise.

By examining the moderating influence of the entrepreneurial ecosystem, it accentuated the crucial function of external elements such as governmental policies, infrastructures, and resources availability in shaping entrepreneurial prowess and achievement. Aly et al. (2021) emphasized the significance of this understanding, as it empowers policymakers and practitioners to foster environments that are conducive to entrepreneurial endeavors. Recognizing how these factors impact entrepreneurial success not only aids in cultivating a more supportive landscape for entrepreneurship but also serves as a guiding compass for entrepreneurs to enhance their skill sets, thereby significantly bolstering their prospects for success.

This study highlighted the critical relationship between entrepreneurial skills (ESk), the entrepreneurial ecosystem (EEc), and entrepreneurial success (ESc). Building upon prior research by Audretsch (2021), Spigel (2019), and Cardon (2017), it uniquely emphasized EEc as a moderating factor, amplifying the impact of ESk on ESc. Moreover, by exploring how EEc enhanced the connection between ESk and ESc, this study fills a vital gap in understanding the interplay of these elements in fostering entrepreneurial success. The researcher has not yet encountered a study on the moderating interaction between the three variables, thereby filling the gap in this concern. The findings will be disseminated through entrepreneurship-focused networks, conferences or seminars, to reach a targeted audience comprising policymakers, practitioners, schools, and entrepreneurs.

This study aimed to determine the relationship between entrepreneurial success and entrepreneurial skills as moderated by the entrepreneurial ecosystem. The study addressed the following hypotheses:

Ho1. There is no significant relationship between entrepreneurial skills and entrepreneurial success; entrepreneurial ecosystem and entrepreneurial success.

Ho2. Entrepreneurial Ecosystem does not significantly moderate the relationship between entrepreneurial skill and entrepreneurial success of microfinance enterprises in Region XI.

Methodology

This study used a descriptive-correlational design, employing moderation analysis. According to McCombes (2022), the goal of descriptive research is to precisely and methodically describe a population, circumstance, or phenomenon. In this study descriptive research design was used to describe the status of entrepreneurial success, entrepreneurial skills, and entrepreneurial ecosystem and entrepreneurial ecosystem and entrepreneurial success of microfinance enterprises in Region XI. Meanwhile, moderation analysis as describes the strength of relationship between two constructs, the changes as the levels of the moderator constructs change (King, 2013). By including moderators in the research, a more complete view of the real world can be constructed by looking beyond the straightforward link between two variables. These variables must be considered when looking at complicated correlations or causes between variables.

This study focused on the selected micro-finance enterprises in Region XI, also known as Davao Region, Philippines. It is situated at the southeastern portion of Mindanao and comprises of five provinces, namely: Davao de Oro, Davao del Norte, Davao del Sur, Davao Oriental, and Davao Occidental. The researcher has chosen the area where the support of the government agency for micro enterprises to succeed is likely to be present. In fact, the recent report of Ambi (2023) of the Department of Trade and Industry in Davao Region showed that the agency has assisted 26,108 micro, small, and medium enterprises (MSMEs) for 2022, which is about 104 percent of the agency's target of 25,200 MSMEs for the same year. Based on the report posted by the Philippine Statistics Authority (2020), the registered number of SMEs in Region XI is as follows: Micro: 48,746; Small: 5,259; Medium: -236, for a total of 54,251, which is quite interesting to pursue the study due to the sufficient number of MSMEs. Furthermore, the study of Clavaro (2013) found that across five cities, wholesale/retail, auto repair, and motorcycle industries were primary. Lodging/food services ranked second. Real estate ranked third in four cities but fourth in one. Manufacturing was fifth in two cities, fourth in three. Administrative support was fifth in Davao. Financial/insurance ranked fifth in two cities, fourth in one, and third in another. Overall, micro and small businesses prevailed in these diverse industries. On the other hand, Department of Trade and Industry-Davao registered 6,650 new MSMEs in first quarter of 2020, primarily from regions like Davao de Oro, Davao del Sur, Davao Oriental, Davao City, Davao del Norte, and Davao Occidental. Director Maria Belenda Ambi (2020) noted that despite Covid-19 measures causing a decline, agribusinesses, accounting for 34.22%, remained prevalent due to Davao's agricultural focused.

The study chose 300 owners in the retail industry as respondents from micro firms in Region XI. Simple random sampling was utilized to select the respondents. As Hair et al. (2013) pronounced, the sample size is only 200 to 300 individuals in business studies. This is congruent with the declaration of Lyons (2015), who pointed out that, as a general rule, sample sizes of 200 to 300 respondents provide an acceptable margin of error and fall before the point of diminishing returns. In light of this, the researcher decided that 300 entrepreneurs would be a reasonable sample size, as Comrey and Lee (1992) also expounded that it is a good sample size in quantitative research.

The selection of 300 samples in this study was conducted using the method of simple random sampling, a widely acknowledged approach known for its fairness in representing a

larger group. According to Simkus (2023), this method aims to create a subset that mirrors the characteristics of the entire population, making it a valuable tool in research. In the case of this study, respondents were chosen from DTI-registered micro-retailing and wholesaling businesses across the five provinces of the Davao Region, which is reported to have 61,000 active businesses as of 2021, ranking seventh in enterprise activity within the Philippines.

To employ the random sampling method, the researcher obtained a list from the business bureau, which served as the sampling frame—a comprehensive roster of registered businesses in the specified region and sector. Each business on this list was sequentially numbered to establish a fair selection process. Subsequently, using the principles of simple random sampling, 300 businesses were randomly chosen from this frame. The researcher then visited the selected businesses in person, seeking their participation through a survey questionnaire. The respondents willingly completed the survey, providing valuable insights into their operations and perspectives within the micro-retailing and wholesaling sector in the Davao Region.

To ensure the tool accurately measured its intended aspects consistently, the instruments were subjected for validity test by the experts and were piloted to get its reliability test. A 5-point Likert design scale was used to rate and interpret the data wherein 5-very high to 1-very low.

Entrepreneurial Success. The tool was adapted from Razmus and Laguna (2018). This 18-item tool has six indicators: entrepreneur satisfaction, entrepreneur work-life balance, social responsibility, firm reputation, employee's satisfaction, and client's satisfaction, with a Cronbach alpha of 0.70 result.

Entrepreneurial Skills. The researcher used the questionnaire made by Geri (2013), which has three indicators: self-competency, control focus, and tendency to take risk which contains 16-item and with Cronbach alpha of 0.73 result.

Entrepreneurial Ecosystem. The tool was adapted from Liu (2020). This instrument has eighteen-item with Cronbach alpha of 0.952 result.

After securing necessary permissions to conduct the data gathering, the researcher personally visited the chosen businesses during business hours to ensure that the owners of the listed micro-companies taken from the business bureau would receive the questionnaire.

Each respondent was asked to sign the informed consent section of the questionnaire before the researcher started administering it to them, indicating their desire to participate. During the administration of the questionnaire, the researcher obtained consent from respondents by having them sign a consent form, indicating their agreement to participate. Additionally, the researcher remained accessible throughout the process to address any queries or provide further clarification to the respondents as needed. The respondents were given the assurance that the researcher would keep their responses confidential because their identities would not appear anywhere in the study that they completed. The Data Privacy Act of 2012, also known as Republic Act 10173, which requires transparency, a legal basis, and proportionality in the acquisition, retention, and processing of personal information, ensures the confidentiality of the information obtained.

Pearson Product Moment Correlation was used to determine the significant relationships among the dependent variable: entrepreneurial success; the independent variable: entrepreneurial skills; and moderating variable: entrepreneurial ecosystem. Hierarchical Logistic Regression Analysis and Mod Graph was used to ascertain the moderating effect of the entrepreneurial ecosystem on the relationship between entrepreneurial skill and entrepreneurial success among microfinance enterprises in Region XI while the Mod graph was used for the graphical display of moderation analysis,

Findings

The overall mean of the entrepreneurial skills is 4.03, indicating a high descriptive level. Correspondingly, entrepreneurial success achieved an overall mean of 4.00, also signifying a high descriptive level. Moreover, the entrepreneurial ecosystem, with its overall mean of 3.72, denoted a high descriptive level as well. This high level suggests that entrepreneurial success and the entrepreneurial ecosystem are oftentimes evident, while entrepreneurial skills are often manifested as perceived by the respondents. Overall, these implications point to a thriving entrepreneurial landscape where skills are recognized, success is attainable, and ecosystems are supportive, fostering an environment ripe for entrepreneurial endeavors.

The survey conducted showed a very high descriptive level mean of 4.41 in the self-competency indicator that an entrepreneur should possess in order to succeed in business.

The majority of the entrepreneurs in Region XI are self-motivated. They are more likely to persevere through tough times and maintain the drive needed to overcome obstacles. As revealed by Nurulasiah et al. (2020), self-competency has a large positive effect on skills of the entrepreneur.

In this study, firms' social responsibility indicator got the lowest mean of 3.13 with a descriptive level of moderate, which indicates that microfinance firms are only sometimes engaged in any community initiatives. Entrepreneurial success necessitates substantial investment in people, materials, and financial resources, which is advantageous for SMEs. However, Bielawska (2022) asserted, due to a lack of understanding of the purpose and objectives of CSR, SMEs are frequently not obligated to engage in socially responsible activities. As a result, CSR programs are executed haphazardly rather than methodically, resulting in many existing opportunities not being identified or utilized by entrepreneurs. Entrepreneurial work-life balance also had the lowest mean of 3.85, although it was rated as high at the descriptive level. Though it got the lowest mean, this could explain why entrepreneurs believe they can successfully balance their professional and personal lives. This could indicate a constructive attitude toward keeping a healthy balance between work and personal activities. According to Tahir (2022), most people with a work-life balance may contribute positively to their entrepreneurial lives.

The correlations between entrepreneurial skills and entrepreneurial success as well as entrepreneurial ecosystem and entrepreneurial success among micro finance enterprises. This led to the rejection of the null hypothesis. Thus, entrepreneurial skills and entrepreneurial success are significantly related to each other. This suggests that improving entrepreneurial skills may contribute to higher levels of entrepreneurial success. Moreover, the overall r -value of 0.468 indicates a significant relationship ($p < 0.05$) between entrepreneurial ecosystem and entrepreneurial success. Thus, this result led to the rejection of the null hypothesis.

The findings showcase a strong positive correlation between entrepreneurial skills and entrepreneurial success, suggesting a noteworthy relationship between these variables. Apriyana (2023) study indicated a positive correlation between entrepreneurial skills and entrepreneurial ecosystem in enhancing business success, enabling MSME actors to effectively manage potential and develop future opportunities. Similarly, the correlation

between the entrepreneurial ecosystem and entrepreneurial success also demonstrate a positive association, implying that as the ecosystem becomes more supportive, entrepreneurial success tends to rise. Mai, et.al. (2022) revealed that the entrepreneurial ecosystem characteristics positively influencing business success. The low p-values (< 0.05) for both correlations indicate statistical significance, providing substantial evidence to reject the null hypothesis and affirming the existence of a meaningful relationship between these factors. These findings implicate the crucial role of both individual skills and the broader ecosystem in shaping entrepreneurial success, suggesting that fostering a strong ecosystem and nurturing entrepreneurial skills can profoundly impact business achievements, particularly within the context of MSMEs, paving the way for more effective strategies in entrepreneurship development and support.

To determine the significance of the moderating effect of entrepreneurial ecosystem on the relationship between entrepreneurial skills and entrepreneurial success, a hierarchical regression analysis was presented to fit its purpose. The moderating effect was shown on the premise that the higher is the level of entrepreneurial ecosystem of microfinance enterprises, the higher is the effect of entrepreneurial skills towards their entrepreneurial success when compared to those with lower entrepreneurial ecosystem. Entrepreneurial Ecosystem served as the moderating variable, entrepreneurial skills as the independent variable, and entrepreneurial success as the dependent variable. The entrepreneurial skills variable was multiplied with the entrepreneurial ecosystem variable to yield an interaction term. The two main effects and the interaction term (entrepreneurial skills x entrepreneurial ecosystem) were utilized in a hierarchical regression to predict entrepreneurial skills. Rehman et al. (2022) emphasized the profound influence of various ecosystem elements on entrepreneurial skills and their subsequent impact on entrepreneurial success. This assertion is corroborated by Mai and Nguyen (2022), who similarly concluded that the environmental ecosystem significantly contributes to determining entrepreneurial success. By connecting these insights, it becomes evident that the ecosystem's diverse elements play a pivotal role in shaping entrepreneurial abilities and eventual success.

When regressing entrepreneurial skills and entrepreneurial success, the model manifested to be significant ($p < .05$) and demonstrated a change in r-square of .058. The r-square change described how much variance in the dependent variable (entrepreneurial

success) these predictors explained in each step. The r-square change of .058 signified an additional variance of 5.8% to the variance of 30% in the step 1 regression showing that 30% of the variance in entrepreneurial success of microfinance enterprises was due to entrepreneurial skills itself. The interaction term explained about 4.4% new variance above and beyond the two main effects. This was marked less than the change in R-square in step 1 and step 2. Interestingly, the ANOVA was significant ($p < .05$) suggesting that the interaction effect was a contributor to the model variance. The significant interaction effect manifested that those microfinance enterprises with higher entrepreneurial ecosystem have higher level of entrepreneurial success. To have the mod graph, the unstandardized coefficient of the interaction, supported with the descriptive statistics of each variable and the computed values of the main effects of entrepreneurial skills and entrepreneurial ecosystem on entrepreneurial success. The figure demonstrated that those with high entrepreneurial ecosystem signified a steeper slope between entrepreneurial skills and entrepreneurial success than those with low entrepreneurial ecosystem, rejecting the null hypothesis. Thus, it can be stipulated that entrepreneurial ecosystem significantly moderates ($p < 0.05$) the relationship between entrepreneurial skills and entrepreneurial success of microfinance enterprises in the said region. Szerb (2018) stressed that a healthy entrepreneurial ecosystem have a greater capacity to materialize the effects of high business-formation success.

The findings from the hierarchical regression analysis shed light on the intricate interplay between entrepreneurial skills, the entrepreneurial ecosystem, and their combined impact on entrepreneurial success. Initially, the analysis demonstrated a substantial positive association between entrepreneurial skills and the dependent variable, signifying the crucial role these skills play in fostering entrepreneurial success. Upon introducing the entrepreneurial ecosystem as a moderator, the results unveiled a multi-dimensional relationship. Both entrepreneurial skills and the entrepreneurial ecosystem individually exhibited significant positive effects on the dependent variable. This is congruent with the declaration of Zaida (2023) that entrepreneurial ecosystem and entrepreneurial skills positively impacts the success of the business.

Conclusion

The findings of this study strongly affirm key theories in entrepreneurship. Anchored in Penrose's Resource-Based theory (1959), the results illuminate the significant impact of entrepreneurial skills and the entrepreneurial ecosystem on the success of microfinance enterprises. They validate the theory's premise that heterogeneous resources, represented here by internal skills and external ecosystem factors, are pivotal for firm growth. Geri's proposition (2013) emphasizing the critical role of entrepreneurial skills finds substantial support in the study's high-level results regarding this variable. Similarly, Kerrigan's assertion (2014) regarding the profound influence of the ecosystem on business success is accentuated by the significant moderating effect observed, confirming the vital role of the entrepreneurial ecosystem in amplifying entrepreneurial success within the specified region's microfinance enterprises.

The study highlighted the importance of self-competency in entrepreneurship, emphasizing the imperative to improve work-life balance strategies and prioritize firm social responsibility. Recommendations entail a multifaceted approach: robust infrastructure investment and strategic policy frameworks supporting entrepreneurial development, educational initiatives fostering self-competency, and comprehensive support structures including financial aid and mentorship. Government support and collaboration among educational institutions, industry experts, and workshops are vital for nurturing a balanced work-life ethos. Sustaining entrepreneurial ecosystems necessitates ongoing advocacy, innovation, and infrastructure investment, backed by supportive government policies, fostering innovation, networking, and skill empowerment. Collaboration among various entities in Region XI—Chamber of Commerce, Department of Trade and Industry, government bodies, and educational institutions—is crucial, fostering self-competency, sharing best practices, and sustaining ecosystems. These efforts not only bolster individual business success but also drive regional economic growth and innovation, making fostering entrepreneurial ecosystems vital for sustainable economic development and a culture of innovation.

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