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Entrepreneurial engagement of business graduates in Region XI with entrepreneurial motivation and entrepreneurial education as determinants: A convergent mixed methods study

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Abstract

The engagement of entrepreneurs in entrepreneurial operations is often hampered by its inability to obtain the required resources and the suitable knowledge and skills. The primary aim of this mixed methods study was to investigate the influence of entrepreneurial motivation and entrepreneurial education on entrepreneurial engagement of business graduates in Region XI. The study employed a convergent mixed methods design, where 300 purposively chosen respondents participated in the quantitative strand and 17 in the qualitative part. Empirical data revealed that the overall entrepreneurial engagement and entrepreneurial education of business graduates were high, whereas the entrepreneurial motivation was very high. Moreover, the findings indicated that entrepreneurial motivation and entrepreneurial education had significant combined influence on entrepreneurial engagement with the former having a greater influence on entrepreneurial engagement. On the qualitative strand, the following a priori themes were generated: behavioral control, subjective norm, attitude towards self-employment, non-cognitive entrepreneurial skills, cognitive entrepreneurial skill, action-based teaching methods, and school engagement. As to the quantitative and qualitative data corroboration, the nature of integration is merging-confirmation.

Keywords: entrepreneurial self-development, behavioral cognitive, entrepreneurial skills, convergent mixed methods

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Introduction

Entrepreneurial engagement is a person's level of active involvement in entrepreneurial engagement to capture opportunities (Fayolle et al., 2014). However, the engagement of entrepreneurs in entrepreneurial activities and the ability to start or expand the business were restricted due to lack of access to financial resources (Perry et al., 2012), and lack of education and training in entrepreneurship (Baum et al., 2014), which restrict peoples' capacity to recognize and pursue business opportunities. Moreover, entrepreneurs found it burdensome to comply with the legal and administrative requirements of establishing and operating a business (Sloof et al., 2017). In the Philippines, data from Global Entrepreneurship Monitor (GEM) in 2014 showed that 6.2% of the adult population are owners of established business while 18.4% were engaged in early stage entrepreneurial engagement (TEA). Data further revealed that 12.6% ceased their business operation which exceeded Asia's 4.8% average. Accordingly, these occur due to low profitability and lack of access to capital. Also, in the GEM 2019/2020 report, the Philippines had a lesser percentage of early-stage entrepreneurial engagement compared to other countries like Singapore (27.9%) and Malaysia (25.5%).

Entrepreneurial engagement is essential for innovation, job creation, and economic growth. New businesses and industries can be developed through entrepreneurship, which also has the potential to increase employment and stimulate the economy (GEM, 2022). It gives people a chance to generate wealth and raise their standard of living; dramatically impacting social development and poverty reduction (Urbano & Guerrero, 2013). In 2019, GEM observed that entrepreneurship, especially in developing nations, promoted economic expansion and job creation. Moreover, in the Philippines, the government has implemented numerous programs and policies to encourage and support entrepreneurship since it is considered as a key factor in economic growth and job creation (Philippine Development Plan 2017–2022). According to the 2021 World Bank report, women entrepreneurs have the potential to significantly contribute to economic development and the reduction of poverty. It also has important social significance because it can help find solutions to societal issues and advance gender equality and female empowerment.

Entrepreneurial success in any entrepreneurial venture engagement depends significantly on an entrepreneur's motivation. Numerous studies have shown that

entrepreneurial motivation and engagement have a significant relationship. Gielnik et al. (2012) discovered, for instance, that entrepreneurial motivation positively affects entrepreneurial engagement, which favorably affects venture performance. Similarly, Cardon et al. (2009) found a relationship between higher entrepreneurial engagement levels and motivation. In addition, entrepreneurial education significantly impacted entrepreneurial engagement. Entrepreneurship education and engagement have a positive relationship, according to numerous studies (Ajayi & Fatoki, 2012). The study found that individuals with entrepreneurial training were more likely to engage in entrepreneurial activities. Azmi et al. (2018), examined the impact of entrepreneurial education on entrepreneurial engagement in Malaysia. They analyzed the relationship between entrepreneurial education and entrepreneurial engagement using survey data. The findings highlighted the need for a more nuanced understanding of the mechanisms by which educational programs influence individual's engagement in entrepreneurial activities. Also, Zhou and Li (2012) revealed that entrepreneurial education has a significant positive impact on entrepreneurial engagement.

The present study's focal point is to provide a closer look at entrepreneurial engagement in the context of entrepreneurial motivation and entrepreneurial education among business graduates in Region XI. Although several works correlated and connected the measures used in the study, the researcher has not found any similar study in the region where all the variables were used in a single research. The absence of research in the region provided the impetus for the conduct of the study locally. This study would prompt academic institutions and government agencies to look closely at business graduates' entrepreneurial motivation and entrepreneurial education to enhance their entrepreneurial ventures. More importantly, it is of paramount importance to consider how business graduates contribute to the local and national economy as entrepreneurial activities provide employment in the area. The study outcomes could highlight areas for further study on issues related to entrepreneurial engagement.

This mixed-methods study investigated how the entrepreneurial motivation and entrepreneurial education influenced the entrepreneurial engagement of business graduates in Region XI. A convergent mixed methods design was utilized, a type of design in which different but complementary data were collected on the same topic. A five-point Likert scale questionnaire was used in this study to test the Resource Base Theory, and the Human

Capital Theory, which considered entrepreneurial motivation and entrepreneurial education as determinants of entrepreneurial engagement among the business graduates in Region XI. Concurrence with data collection and in-depth interviews, the study explored the business graduates' central phenomenon. The reasons for collecting both quantitative and qualitative data were to bring together the strengths of both forms of research to corroborate results.

Methodology

Research Design

To gain an in-depth understanding of the topic, the convergent design, a mixed-methods design, was employed. The purpose of mixed method was that both qualitative and quantitative research, in combination, provides a better understanding of a research problem or issue than either research approach alone (Creswell, 2014). Furthermore, a convergent parallel mixed method is a procedure wherein the researcher will converge and merge quantitative data and qualitative data in order to provide a comprehensive analysis of the research problem. This study utilized convergent design in answering the research question to get a more comprehensive description of business graduates entrepreneurial engagement in relation to entrepreneurial motivation and entrepreneurial education. In this design, the researcher concurrently conducts the quantitative and qualitative elements in the same phase of the research process, weighs the methods equally, analyzes the two components independently, and interprets the results together (Creswell and Pablo-Clark, 2011). With the purpose of corroboration and validation, the researcher triangulated the methods by directly comparing the quantitative statistical results and qualitative findings.

In the quantitative strand of the study, the researcher utilized descriptive correlation to analyze and present the descriptive level of entrepreneurial motivation, entrepreneurial education, and entrepreneurial engagement in the light of quantitative data and find a significant relationship between these variables. Moore et al. (2018) emphasized that the descriptive correlation explores the relationship between two variables without attempting to establish cause and effect. It helps to understand how the two variables tend to move together, whether in the same or opposite direction, and to what degree. The correlation research approach was taken into account in this study. The role of correlation research, which is concerned with establishing relationships between two or more variables in the

same population or between the same variables in two populations, is a very important part of a research study, according to Curtis et al. (2016). All of the social science disciplines continue to be motivated by the desire to understand the connections and relationships that exist among human phenomena, and this motivation outweighs even the most nuanced model distinctions between different research methodologies.

In the qualitative strand, the tradition of phenomenology was considered in the context of qualitative research. According to Tejero (2011), the phenomenological study is an appropriate qualitative method to study a person's experience. The researcher describes an event, activity, phenomenon, and perceptions on entrepreneurial motivation, entrepreneurial education, and entrepreneurial engagement. In a phenomenological study, the researchers gain insights into participants' motivations by combining data collection techniques like conducting interviews, reading documents, watching videos, or visiting places and events to understand the meaning participants place on the subject that was studied. Because phenomenon was observed, a phenomenological study is the best choice for the research design. Bueno (2016) emphasized that this design examines the situation from various angles and draw generalizations about it. In this design, extensive interviews with carefully chosen sample participants—in this instance, sample respondents—remain the design's mainstay. In this way, a thorough understanding of business graduates' inner thoughts, words, and perspectives on entrepreneurial motivation, entrepreneurial education, and entrepreneurial engagement started. In addition, the phenomenological study focused on describing the incidents from the perspectives of those who have experienced them. It is considered an important sociological or psychological phenomenon of the typical people.

Hoffman (2014, cited by Henson 2016), stated that the term "phenomenology" refers to a philosophical approach to exploring or analyzing the meaning of a person's everyday experiences. This is another factor in the decision to used phenomenology as the study's design. Phenomenological dealing with pre-reflective or phenomenon experiences is the name of the technique. Every occurrence can be phenomenologically studied. Because it utilized the techniques of epoch and reduction, this method is known as phenomenological reflection. Finally, Creswell and Plano (2018), the concurrent or parallel design, or the convergent design, is used when the researcher wants to compare or combine the quantitative and qualitative data analysis findings. To understand the complex interplay between multiple

factors - entrepreneurial motivation, education, and engagement. A convergent mixed methods approach allows one to triangulate data from both quantitative and qualitative sources, painting a more complete and nuanced picture than either method could alone (Creswell, 2015). The convergent design allows one to compare and contrast the findings from the quantitative and qualitative data. This can offer valuable insights into the validity and generalizability of the quantitative results, while also providing rich narratives and context-specific explanations for the observed patterns (Fetters & Shakaia, 2006). Because it tends to check whether the participant's response is similar to what they check in the quantitative survey with pre-determined scales and what they will answer in open-ended questions, the convergent research design is, therefore, viewed as a more suitable design for the study.

Integration is the highlight of the mixed-methods study. It does not just add the quantitative and qualitative data but also includes triangulation that compares and contrasts the findings from both methods to strengthen results and identify areas for deeper exploration, as well as joint displays to visualize both quantitative and qualitative data in the same space, allowing for more intuitive interpretation of their interplay.

Data Analysis

The research design for the study was convergent, and data from both qualitative and quantitative sources were gathered and analyzed simultaneously. An interactive approach was used during this time period, where data collection and analysis were iteratively motivated by changes in data collection procedures (Fetters et al., 2013). According to Creswell (2008), the purpose of this type of research is to combine qualitative and quantitative research to offer a better understanding of a research problem or issue. Separate analyses were done on the data from the quantitative and qualitative strands. As a result, this study considered two different types of analyses: thematic analysis for the qualitative strand and statistical tools for the quantitative strand.

Quantitative Strand. The statistical tool that was used to analyze the quantitative data in the future is a weighted mean for business graduates' entrepreneurial engagement, education, and motivation in Region XI. The significant relationship between these variables was tested using Pearson's Product Moment r, and the significant influence of entrepreneurial

motivation and education on entrepreneurial engagement, both individually and collectively, were analyzed using regression analysis. In the future study, the mean was used to assess the entrepreneurial motivation, entrepreneurial education, and entrepreneurial engagement of business graduates in the Davao Region of the Philippines. The standard deviation was also used to determine how far individual responses to a question deviated from the mean. Additionally, the correlation coefficient (Pearson R) was used to measure the relationship between entrepreneurial motivation and entrepreneurial engagement, as well as entrepreneurial education and entrepreneurial engagement, assuming that the data are normally distributed. Finally, regression analysis was utilized to determine the impact of entrepreneurial motivation and entrepreneurial education on the entrepreneurial engagement of business graduates in the Davao Region, assuming that the data are normally distributed.

Qualitative Strand. The thematic analysis was utilized to examine the data in light of the qualitative data analysis. The researcher used the informant interviews that was translated and transcribed based on the in-depth interview (IDI). The analysis began by bracketing the researcher's subjectivity to clarify preconceptions throughout the study. The purpose of bracketing was to remove the researcher's biases and prejudices toward the phenomenon. The researcher started the process by writing a detailed description of the phenomenon (Henson, 2016). Furthermore, the researcher developed themes based on the lived experiences of business graduates in terms of entrepreneurial motivation, entrepreneurial education, and entrepreneurial engagement. As a result, it was critical to select the most appropriate methods of analyzing data in order for it to be thoroughly treated and the conclusion drawn to be substantiated. As a result, inductive analysis was used to analyze the researcher's data (Henson, 2016).

Results and Discussion

Status of Entrepreneurial Motivation. Based on the findings, all the domains, behavioral control, subjective norm, and attitude towards self-employment among business graduates is very evident or very high. Behavioral Control, which indicates a very high level of entrepreneurial motivation. Business graduates-turned-entrepreneurs find joy in achieving milestones, seek community recognition, value working independently, and aim to build a strong business reputation, showcasing their intrinsic motivation to shape their

entrepreneurial destinies. This study finding supports a study conducted by Davis and Hsieh (2010) emphasizes the importance of self-efficacy as a behavioral control component that influence entrepreneurial motivation. Business graduate are eager to apply university-acquired skills, network with fellow entrepreneurs, and confidently start their own businesses, showcasing the influence of subjective norms on their entrepreneurial engagement. Such finding is consistent to the study of Liñán and Fayolle (2015) indicating that the influence of subjective norms on entrepreneurial motivation. Lastly, attitude towards self-employment indicates a very high level of motivation grounded in positive attitudes toward self-employment. The finding of the study support Kautonen et al. (2015) findings that self-efficacy is a mediator, reinforcing the positive relationship between attitude towards self-employment and entrepreneurial motivation to entrepreneurial engagement.

Status of Entrepreneurial Education. The result of the study reveals that entrepreneurial education of business graduates in Davao Region is high, stating that entrepreneurial education among business graduates is evident. Action-based teaching methods, rated as very high, indicating that it is very evident. This very high level of appreciation for action-based methods underscores their significant role in enhancing participants' understanding and practical application of entrepreneurial concepts. The findings of the study support Kickul et al. (2019) indicated that students who participated in action-based learning experiences, such as business simulations, entrepreneurship competitions, and internships, demonstrated higher levels of entrepreneurial engagement compared to those in traditional classroom settings. Non-cognitive entrepreneurial skills, with a rating of high exemplify the business graduates' adeptness in applying creative thinking, goal-setting, time management, and leadership skills in entrepreneurial endeavors. The study's findings align with the work of Gelderen et al. (2018) study highlighted that entrepreneurial education programs that incorporated the development of non-cognitive skills, including self-efficacy, creativity, and adaptability, had a stronger impact on entrepreneurial engagement. Cognitive entrepreneurial skills rated as high, highlight business graduates' entrepreneurs' mastery of cognitive abilities essential for entrepreneurship, such as critical thinking, problem-solving, and strategic planning. The high mean suggests a robust development of intellectual capacities within the entrepreneurial education framework. This

results supports the work of Gupta and Kaur (2019) students' problem-solving, critical thinking, and decision-making abilities can all be improved by entrepreneurial education.

Consequently, school engagement, that is rated as high implies that business graduate-entrepreneurs demonstrate a high motivation, interest, and active participation in academic and entrepreneurial activities within the school setting. This indicates that the educational environment plays a crucial role in shaping entrepreneurial engagement among the study participants. This finding is consistent with the study of Herrera et al. (2019) study revealed that students who are actively engaged in school activities are more likely to develop an interest in entrepreneurship and express intentions to start their own ventures. Lastly, perceived teacher support, rated as high underscores the importance of supportive teacher-student relationships in entrepreneurial education. Business graduates perceived teachers as instrumental in providing guidance, exposure to various strategies, and creating a supportive environment conducive to personal and entrepreneurial growth. This was also consistent with the study of Jena and Dhal (2020) study revealed a positive relationship between perceived teacher support and entrepreneurial engagement.

Status of Entrepreneurial Engagement. The overall result of business graduates' entrepreneurial engagement is high or evident with the indicators of determinants of entrepreneurial engagement, entrepreneurial performance, and impact of entrepreneurial engagement. Determinants of entrepreneurial engagement underscore the business graduates' strong connection to factors influencing entrepreneurial involvement. This high mean suggests a pronounced motivation and interest in achievement, recognition, financial rewards, freedom, and reputation building, emphasizing the multifaceted nature of motivational drivers in entrepreneurial pursuits. This finding supports the work of Autio et al. (2014) mentioned that the potential for business growth serves as a determinant of entrepreneurial engagement. In addition, entrepreneurial performance is rated as high this indicates a robust entrepreneurial performance among the business graduates is evident. The results underscore the practical use of skills in real business situations, emphasizing entrepreneurs' vital role in achieving goals for performance outcomes. The study emphasizes the significance of passion, motivation, and dedication in driving financial success for entrepreneurs. The results corroborate the findings of Cardon et al. (2017) revealed a positive relationship between engagement and performance outcomes, indicating that highly engaged

entrepreneurs tend to achieve better financial results, experience higher growth rates, and exhibit greater innovation.

Finally, impact of entrepreneurial engagement is rated as high or evident and reveals a substantial and positive influence of entrepreneurial engagement on both individual business graduates and the broader community. The high mean suggests that participants not only experience personal satisfaction and achievement but also contribute meaningfully to the community through their entrepreneurial activities. As mentioned by Welter and Xheneti (2013) that engaged entrepreneurs, through their businesses, can contribute to reducing poverty by creating jobs, generating income, and improving livelihoods.

Influence of Entrepreneurial Motivation and Entrepreneurial Education on Entrepreneurial Engagement

The study unveils a noteworthy correlation between entrepreneurial motivation, entrepreneurial education, and entrepreneurial engagement. Statistical analysis indicates that entrepreneurial education wields the most substantial influence on entrepreneurial engagement among business graduates-turned-entrepreneurs. This signifies that the level of entrepreneurial education significantly shapes and enhances their entrepreneurial engagement. This aligns with previous research, such as the findings by Zhou and Li (2012), which assert that entrepreneurial education plays a crucial role in positively impacting entrepreneurial engagement. This highlights the pivotal role of educational interventions in fostering a more engaged and motivated entrepreneurial community, underscoring the importance of incorporating effective educational strategies to empower aspiring entrepreneurs. Furthermore, the research by Gruber and Tal (2018) indicates a positive correlation between entrepreneurial education and entrepreneurial activity the study suggests that such educational interventions contribute to overall entrepreneurial engagement. Fayolle and Gailly's (2015) findings not only highlight the impact on perceptions of feasibility but also underscore how entrepreneurial education can act as a catalyst for creative problemsolving and adaptability in dynamic business environments. Additionally, the study by Hattab and Elfeki (2020) not only confirms the increased likelihood of engaging in entrepreneurial activities for students with entrepreneurial education but also sheds light on the long-term effects. These students tend to exhibit a sustained interest in innovation and a greater propensity for initiating and sustaining entrepreneurial ventures. Moreover, these collective findings not only emphasize the immediate positive effects of entrepreneurial education on activity and feasibility perceptions but also suggest its role in fostering a resilient entrepreneurial mindset and contributing to the long-term sustainability of entrepreneurial endeavors.

Lived Experiences of Business Graduates Entrepreneurs relative to Entrepreneurial Engagement

Based on the answers of participants for in-depth interview and focused group discussion, the following essential themes emerged: determinants of entrepreneurial engagement, entrepreneurial performance, and impact of entrepreneurial engagement with high-level results and positive response from the participants.

The first priori theme in the study, determinants of entrepreneurial engagement, received a positive response from the participants, indicating that Business graduates also agree that accessing to capital is one of the important aspect of any entrepreneurial venture, and mentioned that accessing capital is challenging, as mentioned by Storey (2011) access to capital is a critical determinant of entrepreneurial engagement. Adequate financial resources are necessary to start, operate, and grow a business. Entrepreneurs with Access to capital, whether through personal savings, loans, investors, or government programs, are more likely to engage in entrepreneurial activities and pursue their business ideas. Most of the business graduates' highlights that managing and allocating the capital obtained for business growth is critical for the business operations. Some also shared that the way they allocated their capital obtained is through business expansion. Fayolle et al. (2014) study revealed that the possession of relevant entrepreneurial skills is crucial for entrepreneurial engagement. Creativity, problem-solving, decision-making, budgeting, and networking contribute to individuals' ability to engage in entrepreneurial activities effectively. Entrepreneurs who possess and continuously develop these skills are likelier to engage actively in the entrepreneurial process.

The second priori theme is entrepreneurial performance. Which also received positive response from the participants, indicating that business graduate-entrepreneurs believed that they are capable of increasing market share in the industry were they are playing and with a strong experience in the industry is an advantage that can be utilized to increase market share

as experience provides all the practical learnings. Rauch et al. (2018) investigated the relationship between entrepreneurial engagement and innovation performance. The research revealed a positive association between engagement and innovation outcomes, indicating that engaged entrepreneurs were likelier to generate and implement innovative ideas, enhancing product/service development and market competitiveness. The study emphasized the role of engagement in driving entrepreneurial creativity, risk-taking, and opportunity recognition. In addition, Man et al. (2019) examined the relationship between entrepreneurial engagement and innovation performance. The research highlighted that engaged entrepreneurs were likelier to engage in innovative activities, generate new ideas, and implement innovative strategies, leading to enhanced innovation performance. The study underscored the critical role of engagement in fostering entrepreneurial creativity and driving innovation outcomes. Penetrating new market is one of the most challenging part of being an entrepreneur business graduate mentioned that they are capable of penetrating new markets and to Identified factors to consider when evaluating the feasibility and potential of new market opportunities by the business graduates. Gielnik et al. (2014) examined the impact of entrepreneurial engagement on the financial performance of small and medium-sized enterprises (SMEs). The findings revealed a positive relationship between entrepreneurial engagement and financial performance, indicating that higher levels of engagement were associated with improved profitability, return on investment, and revenue growth. The study highlighted the importance of entrepreneurs' passion, motivation, and dedication in driving financial success to reach new market.

Lastly, the priori theme is impact of entrepreneurial engagement, which also received positive responses from the participants. Business graduate-entrepreneurs shared that entrepreneurial engagement has had a positive impact to the community such as addressing problem on poverty, unemployment, and an economic contribution to the national economy. Also, entrepreneurial engagement helps the community in providing the needs such as foods and sustaining the lifestyle. Entrepreneurial activities provide jobs and create employment opportunity. It is also recognized that entrepreneurial engagement has a positive impact to the economic growth, developing skills, and empowering people. Welter and Xheneti (2013) investigated the impact of micro-entrepreneurship on poverty alleviation in developing countries. The research highlighted that engaged entrepreneurs, through their businesses, can

contribute to reducing poverty by creating jobs, generating income, and improving livelihoods. In addition, Autio et al. (2014) research revealed a positive association, indicating that regions with higher levels of entrepreneurial engagement experienced greater productivity gains, technological progress, and overall economic performance.

Live Experiences of Participants on Entrepreneurial Motivation that Shaped Entrepreneurial Engagement

The study has generated essential themes based on the answers of participants for indepth interview and focused group discussion; behavioral control, subjective norm, and attitude towards self-employment with very high-level results and positive response from the participants.

In the study, behavioral control as the priori theme with positive responses from the participants as they shared that achievements within their businesses not only brought about a great sense of enjoyment and financial satisfaction but also garnered recognition and admiration from the community also freedom to work anywhere and anytime emerged as a liberating factor, providing entrepreneurs with the flexibility to tailor their work schedules and environments. Seo et al. (2020) highlight the importance of goal orientation in entrepreneurial engagement. They argue that entrepreneurs with a mastery goal orientation, characterized by a focus on learning and growth, are more likely to exhibit higher levels of behavioral control and engagement in entrepreneurial activities. Social support has been identified as a significant factor in shaping behavioral control and entrepreneurial engagement. Ahmad and Seymour (2019) find that social support from family, friends, and mentors positively influences an entrepreneur's perceived behavioral control and encourages engagement in entrepreneurial activities.

The second priori theme is subjective norm. Which also received positive responses from the participants, participants demonstrated a strong inclination to apply the skills acquired during their university education, highlighting the pivotal role of academic knowledge in their entrepreneurial endeavors. As shared by the participants networking emerged as a crucial component, as they actively sought to connect with fellow entrepreneurs, leveraging their experiences for learning and identifying novel opportunities. Chen and Thompson (2018) discuss the importance of intrinsic motivation and self-

determination as critical factors driving entrepreneurial engagement. Wilson and Smith (2014) present a theoretical framework for understanding the motivational factors influencing entrepreneurial intention. Although behavioral control is not explicitly discussed, the framework highlights the significance of individuals' perceived control over their actions as a key determinant of entrepreneurial motivation and engagement. Confidence in initiating independent ventures was underpinned by a comprehensive understanding of financial management, marketing, and organizational development, showcasing the practical application of academic knowledge. Johnson and Smith (2015) investigate behavioral control's influence on entrepreneurial intentions across different cultures. They find that individuals with a higher level of perceived control over their actions exhibit greater intentions to engage in entrepreneurial activities, suggesting that behavioral control plays a significant role in motivating individuals to pursue entrepreneurship.

Lastly, attitude towards self-employment a priori theme with positive responses from the participants as they shared that, the examination of the participants' attitudes towards selfemployment unveiled a spectrum of motivations and aspirations driving their entrepreneurial engagement. Job security, freedom, and control emerged as foundational aspirations, with participants expressing a desire to chart their own professional destinies. In addition, entrepreneurship was viewed as a platform to unleash creativity and innovative ideas, providing an avenue for self-expression and unique business approaches, achieving financial stability stood out as a significant goal, aligning self-employment with economic well-being, and as a means to expand partnerships, fostering collaboration and growth within the business ecosystem. Liñán et al. (2012) the authors highlight that a positive attitude towards self-employment, combined with education, and achieving personal goals significantly influences individuals' motivation to engage in entrepreneurship. Kautonen et al. (2015) conducted a longitudinal study using surveys and structural equation modeling to investigate the role of self-efficacy in the relationship between attitude towards self-employment and entrepreneurial engagement. Their findings suggest that self-efficacy is a mediator, reinforcing the positive relationship between attitude towards self-employment and entrepreneurial engagement.

Live Experiences of Participants on Entrepreneurial Education that Shaped Entrepreneurial Engagement

Base on the answers of participants for in-depth interview and focused group discussion, there were essential themes generated and participants showed positive experience on the 5 indicators as priori themes: non-cognitive entrepreneurial skills, cognitive entrepreneurial skills, school engagement, and perceived teacher support with the rating of high in quantitative results while, action-based teaching methods rated as very high-level. All the a priori themes on entrepreneurial education indicated positive core ideas.

On the non-cognitive entrepreneurial skills, as participants shared that the exploration of non-cognitive entrepreneurial skills among participants illuminated the importance of these intangible attributes in shaping their entrepreneurial journeys. Creative thinking skills were actively employed in navigating the complexities of entrepreneurial endeavors, with participants emphasizing the need for innovative problem-solving and idea generation. Pihie and Bagheri (2012), students' creativity, risk-taking, and self-efficacy can all be improved by entrepreneurial education. Similarly, Zhang and Bartol's (2010) study discovered that entrepreneurship education could improve students' emotional intelligence and proactive personalities. The ability to create SMART (Specific, Measurable, Achievable, Relevant, Time-Bound) goals and objectives emerged as a strategic approach, providing a structured framework for planning and execution. Zampetakis et al. (2017) research revealed that NCES could be developed through hands-on learning exercises. The study discovered that while networking can improve social skills and self-efficacy, business planning and idea generation can boost creativity. Additionally, a Shinnar et al. (2015) study discovered a positive correlation between NCES and successful entrepreneurship. According to the study, business owners with high NCES scores were likelier to launch profitable ventures and report feeling more satisfied in their work.

On the cognitive entrepreneurial skills, participants emphasized the acquisition of a diverse skill set encompassing entrepreneurial leadership, and risk-taking skills as foundational to their endeavors. In addition, strategic planning and assessment were evident through the utilization of tools to evaluate business potential comprehensively and decision-making and problem-solving skills emerged as crucial assets, enabling participants to navigate challenges inherent in entrepreneurial pursuits. According to a Gupta and Kaur

(2019), students' problem-solving, critical thinking, and decision-making abilities can all be improved by entrepreneurial education. Similarly, Gielnik et al. (2015) found that entrepreneurship education can improve students' business planning abilities. Foliard et al. (2020) study revealed that participants who received cognitive skill-building interventions exhibited higher levels of entrepreneurial engagement. The development of cognitive skills, such as analytical thinking, creativity, and opportunity recognition, was found to positively influence individuals' engagement in entrepreneurial activities. This study emphasizes the importance of integrating cognitive skill development into entrepreneurial education programs to enhance entrepreneurial engagement.

On the action-based teaching methods, the examination of action-based teaching methods shed light on the profound impact of experiential learning on participants' understanding and development in entrepreneurship. Collaboration emerged as a key catalyst, enhancing comprehension of entrepreneurial concepts and providing a platform for the practical application of skills. Fayolle et al. (2014) mentioned that experiential learning, problem-based learning, and project-based learning are some techniques. In addition, through collaborative efforts, participants not only gained insights into entrepreneurship but also developed essential social skills, fostering effective communication and teamwork. Engaging in discussions and debates within the learning environment significantly influenced participants' ability to analyze and evaluate entrepreneurial concepts critically. Bacq and Janssen (2011) investigated the efficacy of action-based teaching strategies in entrepreneurship education. These methods positively affected students' attitudes toward entrepreneurship, self-efficacy, and intentions to start a business, according to the authors. In a separate study, Kickul and Gundry (2012) examined the influence of action-based teaching methods on the entrepreneurial mindset of undergraduate students. They discovered that students who participated in an action-based entrepreneurship program had greater entrepreneurial self-efficacy and startup intentions than those who participated in a traditional lecture-based program.

On the school engagement, the participants expressed a heightened motivation to invest effort and hard work in their academic pursuits, indicative of a strong connection between academic engagement and entrepreneurial endeavors. Herrera et al. (2019) findings revealed a positive association between school engagement and entrepreneurial intentions,

suggesting that students who are actively engaged in school activities are more likely to develop an interest in entrepreneurship and express intentions to start their own ventures. In addition, genuine interest and passion for learning emerged as pivotal factors, with participants demonstrating an enthusiasm to explore and acquire new knowledge and skills. Wang and Degol (2017) study findings demonstrated that students who were highly engaged in school, characterized by active participation in classes, involvement in extracurricular activities, and positive teacher-student relationships, were more likely to exhibit entrepreneurial behaviors, such as seeking opportunities, taking initiative, and pursuing entrepreneurial goals.

On the perceived teacher support, as the participants shared that, teachers were seen as more than facilitators, actively contributing to students' decision-making processes by providing ideas and guidance. Lorz et al. (2018), students' entrepreneurial intentions are significantly predicted by how much they feel their teachers support them. According to the study, students who felt their teachers supported them more in their entrepreneurial endeavors than those who felt less support had higher entrepreneurial intentions. Jena and Dhal (2020) study findings revealed a positive relationship between perceived teacher support and entrepreneurial engagement. Students who perceived higher levels of support from their teachers reported greater motivation, confidence, and commitment to their entrepreneurial endeavors. They also exhibited a higher level of entrepreneurial intention and a greater likelihood of engaging in entrepreneurial activities.

Data Integration of the Salient Quantitative and Qualitative Results

On the entrepreneurial engagement of business graduate-entrepreneurs, it was found out that the quantitative results showed that all indicators such as determinants of entrepreneurial engagement, entrepreneurial performance, and impact of entrepreneurial engagement were all rated high which means that business graduates entrepreneurs oftentimes manifested entrepreneurial engagement. This result is congruent to the qualitative data on the three indicators considered as a priori themes: because the responses of the participants to the interview and discussion revealed positive experiences in entrepreneurial engagement. In other words, qualitative data results confirm the quantitative data; hence the nature of integration is merging-confirming.

For the entrepreneurial motivation of business graduate-entrepreneurs, the results showed that the indicators behavioral control, subjective norm, and attitude towards self-employment were rated very high which means that business graduates entrepreneurs oftentimes manifested entrepreneurial motivation. This result is congruent to the qualitative data on the three indicators considered as a priori themes: because the responses of the participants to the interview and discussion revealed positive experiences in entrepreneurial motivation. In other words, qualitative data results confirm the quantitative data; hence the nature of integration is merging-confirming.

On the entrepreneurial education of business graduate-entrepreneurs, the results showed that the indicators non-cognitive entrepreneurial skills, cognitive entrepreneurial skills, school engagement, and perceived teacher support are all rated high while action-based teaching methods rated as very high, which means that business graduates entrepreneurs oftentimes manifested entrepreneurial education. This result is congruent to the qualitative data on the five indicators considered as a priori themes: because the responses of the participants to the interview and discussion revealed positive experiences in entrepreneurial education. In other words, qualitative data results confirm the quantitative data; hence the nature of integration is merging-confirming.

Combined influence of entrepreneurial motivation and entrepreneurial education on entrepreneurial engagement. On the quantitative strand, both entrepreneurial motivation and entrepreneurial education significantly influenced entrepreneurial engagement. Also on the qualitative stand, the business graduate-entrepreneurs verbalized the importance of the two variables in shaping their entrepreneurial engagement. Hence, the nature of integration is merging-confirmation. Nearly all participants were firm in their response that both entrepreneurial motivation and entrepreneurial education values best influence the entrepreneurial engagement. A number of authors support the idea that entrepreneurial motivation influences entrepreneurial engagement (Gielnik et al., 2012; Kautonen et al., 2017; Shirokova et al., 2016; Lau & Chan, 2017). Entrepreneurial education according to Gruber and Tal (2018), and Azmi et al., (2018), influences entrepreneurial engagement.

Domain of entrepreneurial motivation and entrepreneurial education that best influence entrepreneurial engagement. Statistically, both entrepreneurial motivation and entrepreneurial education significantly influenced entrepreneurial engagement. But between

the two, entrepreneurial education came out as the best influence of entrepreneurial engagement since it had higher beta-coefficient than entrepreneurial motivation. The participants were very confident in their opinion during the interview that entrepreneurial motivation and entrepreneurial education significantly must coexist. They conveyed that both variables are contributors to their entrepreneurial engagement. They believed that if they merge the two variables, it would add something that would enhance their entrepreneurial engagement. This is supported by Lau, and Chan's (2017) as he explained that entrepreneurial motivation significantly improves entrepreneurial engagement, enhancing venture performance. While Hattab and Elfeki's (2020) discovered that students who received entrepreneurial education were more likely to engage in entrepreneurial activities than those who did not.

Conclusion

On the status of entrepreneurial motivation as experienced by the respondent are very high. This shows that entrepreneurial motivation is very evident in the indicators of behavioral control, subject norm, and attitude towards self-employment. Moreover, this illustrates that business graduate-entrepreneurs are very highly aware of the importance of entrepreneurial motivation that influence business graduate-entrepreneurial engagement. On the status of entrepreneurial education as experienced by the participants, the result is high. This connotes that the respondents' response on entrepreneurial education is evident. This means that respondent recognized entrepreneurial educations as important determinants of business graduates to engage in entrepreneurial activity. Lastly, is on the status of entrepreneurial engagement as experienced by the participants is high. This indicates that entrepreneurial engagement is evident among the indicators, determinants of entrepreneurial engagement, entrepreneurial performance, and impact of entrepreneurial engagement.

The findings indicated that both entrepreneurial motivation and entrepreneurial education influence entrepreneurial engagement. Findings shows a significant relationship among the variables on the correlation analysis. However, statistical findings as supported by a high beta coefficient revealed that entrepreneurial education had the greatest influence on entrepreneurial engagement. This means that changes in entrepreneurial education are significantly associated with corresponding changes in entrepreneurial engagement. This

result emphasizes the pivotal role of education in shaping individuals' commitment and involvement in entrepreneurial activities.

On the lived experiences of the business graduate entrepreneurs to their entrepreneurial engagement, it showed that there were three priori themes: determinants of entrepreneurial engagement, entrepreneurial performance, and impact of entrepreneurial engagement. For the experience of business graduate entrepreneurs on entrepreneurial motivation that shaped entrepreneurial engagement, it showed that determinants of entrepreneurial engagement, entrepreneurial performance, and impact of entrepreneurial engagement priori themes belongs to the positive entrepreneurial motivation. For the experiences of business graduate-entrepreneurs on entrepreneurial education that shape entrepreneurial engagement, the five priori themes belongs to a positive entrepreneurial education which were non-cognitive entrepreneurial skills, cognitive entrepreneurial skills, action-based teaching methods, school engagement, and perceived teacher support.

The data integration reveals a merging-confirmation pattern, as affirmed by business graduate who recognize the significant impact of both entrepreneurial motivation and entrepreneurial education in shaping their entrepreneurial engagement. The positive experiences reported by these entrepreneurs further validate the influence of these factors on their entrepreneurial journey. The merging-confirmation observed in the responses of business graduate entrepreneurs underscores the symbiotic relationship between motivation and education in shaping entrepreneurial engagement.

To sustain the entrepreneurial motivation of business graduates, it was discovered that behavioral control, subjective norm, and attitude towards self-employment rated as very high indicates that entrepreneurial motivation is very evident among business graduates; to further sustain, an entrepreneurial motivation enhancement program can be done through developing mentorship programs and also facilitate networking events, workshops, and seminars to foster connections among students and experienced entrepreneurs and this can be implemented by the academic institutions with close coordination with government agencies such as Department of Trade and Industry (DTI) and the Business and Investment Office of the LGU. In addition, establish partnerships with local businesses to offer internships and practical experiences.

Business graduates may sustain their entrepreneurial education by revising curricula to incorporate more action-based teaching methods. Establish on-campus entrepreneurial labs or incubators to encourage students to work on their business ideas and provide access to resources, mentorship, and funding opportunities within these spaces. In addition, implementing continuous professional development programs for faculty to stay updated on the latest trends and industry practices. Provide resources and incentives for educators to engage in entrepreneurial endeavors themselves. Lastly, develop interactive online modules that allow students to engage with course materials dynamically and effectively. Utilize gamification and multimedia elements to enhance the learning experience.

Finally, it is important to note that the results particularly on the shared views of the participants on the quantitative and qualitative results only captured the standpoint of a subset of participants on their entrepreneurial engagement. Further, it is recommended that future researchers delve deeper into the nuanced dynamics of entrepreneurial engagement by exploring contextual factors that may influence the identified determinants, motivations, and educational components. Investigating the role of emerging technologies, such as artificial intelligence or blockchain, in shaping entrepreneurial engagement could offer valuable insights into the evolving landscape of entrepreneurship. Furthermore, comparative analysis across different cultural and socio-economic contexts may provide a nuanced understanding of the factors influencing entrepreneurial engagement, contributing to more targeted and effective policy recommendations and educational programs.

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