Entrepreneurial Learning, Digital Exposure and Attitudes: Antecedents of Entrepreneurial Skills

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ABSTRACT

Entrepreneurship drives economic growth and personal empowerment, yet few studies examine its development among senior high school Home Economics students. This study examines whether school and home-based learning, digital exposure, and entrepreneurial attitudes influence entrepreneurial skills among Grade 12 Home Economics students in Bukidnon, Philippines. The study involved 165 randomly selected Grade 12 students from the Home Economics and Accountancy, Business, and Management strands. Data were gathered using a validated survey questionnaire. Instruments were adapted from various sources: school-based learning Garcia & Smith, (2024); Anderson et al., (2023); Hassan & Zhang, (2023), home-based learning Lee & Park, (2024); Santos, (2023); Martinez et al., (2024), digital exposure Thompson & Lee, (2024); Kumar & Singh, (2023); Rodriguez, (2024), entrepreneurial attitudes Martinez, (2023); Rodriguez, (2024); Kumar & Park, (2023), and entrepreneurial skills Chen et al., (2023); Martinez, (2024); Rodriguez et al., (2024); Mendoza et al., (2023). Results reveal a generally positive assessment of entrepreneurial learning, with school-based learning experiences rated slightly higher than home-based learning. Exposure to digital entrepreneurship was moderate. Students exhibited highly positive attitudes toward entrepreneurship, aligning closely with their entrepreneurial intentions. Multiple regression results reveal that entrepreneurial learning, digital exposure, and attitudes toward entrepreneurship significantly influence students' entrepreneurial skills. The findings underscore the necessity of balanced entrepreneurial education that combines structured school experiences, practical home engagement, and strong digital exposure. The study recommends boosting digital entrepreneurship and strengthening family-school ties. Future research should explore home-school integration and long-term effects on students' entrepreneurial development.

Keywords: entrepreneurial attitudes, entrepreneurial learning, entrepreneurial skills, digital exposure, ,

INTRODUCTION

The K-12 education system in the Philippines has evolved since 2011, incorporating entrepreneurship into the curriculum through the Enhanced Basic Education Act of 2013. Research shows that entrepreneurial skills are vital for students' future employment opportunities, with factors like mindset, attitudes, and hands-on experiences significantly influencing skill development. Studies by Cuaresma et al. (2024) and Nellas (2022) emphasize the importance of positive entrepreneurial mindsets and experiential learning in developing business capabilities.

Despite extensive research on entrepreneurship education in traditional business courses, there's limited investigation into Home Economics students at the senior high school level, creating a notable research gap. These students have significant entrepreneurial potential in food, fashion, and wellness industries, yet receive insufficient academic attention regarding their entrepreneurial skill development.

The present study aims to address this gap by examining the relationships between learning experiences, digital exposure, and attitudes affecting entrepreneurial skills among Home Economics senior high school students. The research seeks to identify factors that enhance entrepreneurial learning in this specific context, contributing to the development of more effective educational strategies and curriculum for vocational entrepreneurship education.

This research aligns with multiple UN Sustainable Development Goals, including Quality Education (SDG 4), Decent Work and Economic Growth (SDG 8), and Reduced Inequalities (SDG 10). By focusing on previously understudied Home Economics students, the study aims to improve accessibility to entrepreneurship education across different educational tracks, ultimately contributing to more inclusive entrepreneurship programs across various disciplines.

Theoretical and Conceptual Framework

This study examines how entrepreneurial learning, digital exposure, and attitudes influence entrepreneurial skill development among high school students. It builds upon three theoretical frameworks: the Theory of Planned Behavior (Ajzen, 1991), which explains how positive attitudes and beliefs about entrepreneurship motivate students to develop business skills; Human Capital Theory (Becker, 1964; Schultz, 1961), which demonstrates how education and training build valuable entrepreneurial capabilities; and Social Learning Theory (Bandura, 1977), which highlights how students learn by observing successful entrepreneurs, particularly through digital platforms.

Entrepreneurial skills—the dependent variable—include marketing, decision-making, problem-solving, and organizational capabilities. Research indicates these skills can be learned through proper education rather than being innate talents (Chen et al., 2023). Marketing skills help entrepreneurs understand customer needs and effectively promote products, with Martinez (2024) finding that business owners with strong marketing knowledge retain customers longer. Decision-making skills enable entrepreneurs to make quick, informed choices that lead to better business outcomes and growth (Kumar & Singh, 2022), while problem-solving abilities help them identify and address challenges before, they escalate (Rodriguez et al., 2024).

The study identifies three independent variables that influence entrepreneurial skill development. First, entrepreneurial learning occurs in both school and home environments. According to Rodriguez (2024), school-based learning provides structured activities, expert guidance, and peer interactions in a safe environment, while Lee & Park (2024) note that home-based learning offers practical experience through family businesses and household responsibilities. Second, exposure to digital entrepreneurship familiarizes students with online business operations, e-commerce platforms, and digital marketing strategies, with Thompson (2023) showing that regular interaction with these tools improves students' understanding of current market trends.

Attitude toward entrepreneurship is the third independent variable, with studies by Chen et al. (2024) indicating that positive mindsets lead to greater engagement in business learning. Martinez (2023) found that students who recognize the value of entrepreneurship and believe in their ability to succeed demonstrate more resilience when facing challenges. Kumar & Park (2023) note that these attitudes are shaped by supportive environments and exposure to successful role models.

The research suggests that when students have quality entrepreneurial learning experiences both at school and home, combined with sufficient exposure to digital business tools and positive attitudes, they develop stronger entrepreneurial capabilities. Abusomwan (2024) and Rodriguez et al. (2024) note that these skills benefit both individual students and the broader economy, as entrepreneurial graduates create more jobs and contribute to economic growth in their communities.

Organizational skills, the final component of entrepreneurial abilities, involve effectively managing time, resources, and business operations. Mendoza et al. (2023) show that entrepreneurs with strong organizational skills run their businesses more efficiently, while Lee et al. (2024) found they experience less stress and make better use of their resources. Parker (2023) emphasizes that these skills can be developed through proper training and practice, with early development leading to greater success in managing future business responsibilities.

Statement of the Problem

The study examined the relationship between entrepreneurial learning, digital exposure, and attitudes towards entrepreneurship and the entrepreneurial skills of Grade 12 students in Home Economics and Accountancy, Business, and Management (ABM) strands in a national high school in Bukidnon, Philippines for School Year

2024-2025. Specifically, it answered the following questions:

1. What is the participants' assessment of their entrepreneurial learning in terms of:

    1.1 learning in school; and

    1.2 learning at home?

2. What is the participants' extent of exposure to digital entrepreneurship?

3. What are the participants' attitudes towards entrepreneurship?

4. What is the participants' level of entrepreneurial skills in terms of:

    4.1 marketing skills;

    4.2 decision-making skills;

    4.3 problem-solving skills; and

    4.4 organizational skills?

5. Do the participants' entrepreneurial learning, digital exposure, and attitudes towards entrepreneurship significantly influence their entrepreneurial skills?

Review of Related Literature and Studies

Recent research establishes that entrepreneurial skills—comprising marketing, decision-making, problem-solving, and organizational abilities—can be developed through proper education rather than being innate talents (Chen et al., 2023; Thompson & Lee, 2024). These multifaceted skills combine both technical and soft competencies necessary for business success and economic growth (Rodriguez & Kumar, 2023; Wilson & Park, 2023). Studies by Garcia and Smith (2024) found that students who develop these skills during their education demonstrate better business outcomes, while Anderson et al. (2023) indicate that entrepreneurial skills enhance both business success and employability.

Marketing skills emerge as fundamental capabilities for modern entrepreneurs, involving understanding customer needs, creating promotional strategies, and building strong customer relationships (Rodriguez & Santos, 2023). Thompson and Lee (2023) show that successful entrepreneurs demonstrate strong abilities in market analysis and customer segmentation, while Martinez (2024) indicates that entrepreneurs with strong marketing abilities achieve higher success rates. The digital transformation of business has expanded skill requirements, with Hassan and Zhang (2023) demonstrating that modern entrepreneurs need both traditional and digital competencies, including social media marketing (Kumar & Singh, 2023).

Decision-making and problem-solving skills constitute critical entrepreneurial competencies. Williams and Lee (2024) show that effective decision-making involves analyzing information, evaluating alternatives, and choosing optimal solutions in dynamic business environments.

Morrison and Kim (2023) found that successful entrepreneurs demonstrate strong analytical abilities, while Taylor and Singh (2023) link decision-making abilities to business growth. Similarly, Parker and Chen (2024) show that successful entrepreneurs excel at identifying and resolving business challenges, with Martinez et al. (2024) demonstrating how problem-solving skills contribute to business adaptability. According to Lopez et al. (2024), effective problem-solving leads to better business outcomes.

Organizational skills complete the entrepreneurial toolkit, with Lee and Parker (2024) showing how these abilties affect business efficiency. Wilson and Martinez (2023) found that strong organizational skills lead to better resource management, while Rodriguez and Park (2024) demonstrate how these skills help businesses scale

effectively. According to Smith et al. (2024), effective organization leads to better time management and operational efficiency.

The development of these skills is influenced by three key factors: entrepreneurial learning, digital exposure, and attitudes toward entrepreneurship. Entrepreneurial learning encompasses both formal and informal educational experiences, with Thompson and Lee (2024) showing that effective learning combines theoretical knowledge with practical applications. Martinez et al. (2024) found that successful learning involves multiple approaches, while Hassan and Zhang (2023) demonstrated that well-designed activities lead to better entrepreneurial capabilities.

Entrepreneurial learning occurs in both school and home environments. Garcia and Smith (2024) show that classroom activities and simulations enhance business understanding, while Brown and Johnson (2024) found that school programs provide essential resources for practice. Complementarily, Santos and Baker (2023) found that family businesses provide valuable real-world learning experiences, with Thompson and Garcia (2024) showing how direct involvement in family enterprises develops business acumen. Martin and Chang (2024) demonstrate how household responsibilities develop management skills, highlighting the unique contributions of home-based learning.

Exposure to digital entrepreneurship has become increasingly crucial, with Thompson and Lee (2024) showing that interaction with digital business tools significantly influences entrepreneurial development. Martinez et al. (2024) found that exposure to e-commerce platforms, digital marketing tools, and online business operations provides essential learning experiences. Brown and Johnson (2024) demonstrated that social media exposure helps students understand modern marketing strategies, while Nguyen and Lee (2024) showed how exposure to online marketplaces develops business understanding. This digital exposure prepares students for future business trends and challenges (Phillips & Johnson, 2023).

Entrepreneurial attitudes play a crucial role in skill development, with Thompson and Lee (2024) showing that students' thoughts about entrepreneurship significantly influence their business aspirations. Martinez et al. (2024) found that students' confidence in their entrepreneurial abilities affects their business goals, while Rodriguez and Kumar (2023) demonstrated how positive attitudes lead to better engagement. Brown and Johnson (2024) found that students who recognize entrepreneurship benefits show increased motivation to learn, with Nguyen and Lee (2024) noting that students' belief in their abilities affects their entrepreneurial mindset.

The research is grounded in three theoretical frameworks: the Theory of Planned Behavior (Ajzen, 1991), which explains how attitudes influence entrepreneurial intentions; Human Capital Theory (Becker, 1964; Schultz, 1961), which shows how education builds valuable skills; and Social Learning Theory (Bandura, 1977), which describes how observation and experience contribute to skill development. Together, these theories and empirical findings suggest that entrepreneurial skills develop through a combination of proper education, digital exposure, and positive attitudes. These skills benefit both individual students and the broader economy, as entrepreneurial graduates create jobs and contribute to economic growth in their communities (Abusomwan, 2024; Rodriguez et al., 2024).

RESEARCH METHODS

This study employed a descriptive correlational research design to investigate the relationships between entrepreneurial learning, digital exposure, attitudes, and skills among senior high school students from the Home Economics and Accountancy, Business and Management strands in Bukidnon, Philippines. As Creswell and Creswell (2018) explain, this design served to both describe the current state of variables and measure the strength of associations between them without manipulation (Fraenkel et al., 2019). Participants were selected through random sampling to ensure representativeness and minimize bias (Taherdoost, 2016).

The research utilized a researcher-developed survey questionnaire with four main sections addressing entrepreneurial learning experiences, involvement with digital entrepreneurship, attitudes towards entrepreneurship, and assessment of entrepreneurial skills (marketing, decision-making, problem-solving, and organizational). To ensure validity and reliability, the questionnaire underwent expert review and pilot testing with Cronbach's alpha

analysis, considering values above 0.7 acceptable (Taber, 2018). Responses were scored using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

The data collection process adhered to strict ethical standards, beginning with approval from the Lourdes College Research Ethics Committee and school principal, followed by informed consent from participants and their guardians. The consent process followed principles outlined in the Belmont Report, emphasizing respect for persons, beneficence, and justice (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979). Throughout the research, confidentiality was maintained through coded questionnaires and secure data storage, with participants retaining the right to withdraw without consequences.

Statistical analysis included both descriptive methods (mean, standard deviation, and frequency distribution) and inferential techniques (Pearson's correlation coefficient and multiple regression analysis) to assess the relationships between variables and determine the strength of predictors (exposure and attitude) on entrepreneurial skills. Upon conclusion, findings were shared with the school administration and participants to inform decisions about entrepreneurship education programs, with results also disseminated through academic channels while maintaining confidentiality.

RESULTS AND DISCUSSIONS

Problem 1: What is the participants' assessment of their entrepreneurial learning in terms of:

1.1 learning in school; and
1.2 learning at home?

Table1 shows the Summary Table of Assessment of Entrepreneurial Learning. The overall mean score of 3.88 (SD = 0.51) falls within the *High* range, showing that participants had positive views of their entrepreneurial learning experiences in both school and home settings. This shows that both types of entrepreneurial education help develop students' entrepreneurial skills.

Looking at the scores, participants rated their school entrepreneurial learning experiences (M = 3.97, SD = 0.48) somewhat higher than their home experiences (M = 3.79, SD = 0.70). Both settings were rated *High*, but the larger standard deviation for home-based learning shows more variation in these experiences. This variation points to possible differences in home resources, activities, and parental support compared to the more structured school environment.

Table 1 Summary Table of Assessment of Entrepreneurial Learning

Dimensions of Assessment of Entrepreneurial Learning	**Mean**	**Interpretation**	**SD**
Learning in School	3.97	High	0.48
Learning at Home	3.79	High	0.70
Overall Assessment of Entrepreneurial Learning	**3.88**	**High**	**0.51**

The higher rating for school-based learning matches what we saw earlier, where teacher guidance, structured lessons, and organized activities were rated very positively. Schools seem to provide more consistent learning through teacher mentorship, encouragement of innovative thinking, and structured lessons. As Kuratko and Morris (2023) noted, teachers are important for teaching practical entrepreneurial skills, which explains the higher and more consistent ratings for school-based learning.

While home-based entrepreneurial learning was also rated positively overall, the lower average score and higher variation suggest some inconsistency in the quality and availability of learning opportunities at home. Forge (2019) and Sharma and Nitu (2023) have noted that family plays an important role in developing entrepreneurial abilities, but the findings show that this support may not be equally available across all homes. The gaps in

home-based learning, especially in financial planning involvement and practical business activities, contribute to this greater variation.

These findings show the need to improve entrepreneurial support at home to match what's provided in schools. Improving home-based learning through more family involvement in business activities, more decision-making opportunities, and better resources could strengthen overall entrepreneurial education. By addressing these gaps, educators can work toward a more complete approach that uses the strengths of both school and home environments.

Problem 2. What is the participants' extent of exposure to digital entrepreneurship?

Table 2 reveals the frequency, percentage, and mean distribution of the participants' Extent of Exposure to Digital Entrepreneurship. The overall mean score of 3.38 (SD = 0.78) falls within the *Moderate* range (2.51-3.50), showing that participants had a moderate level of exposure to digital entrepreneurship. This indicates that while participants have some familiarity with digital entrepreneurship, there is room for increased exposure and development in this area.

Table 2 Frequency, Percentage and Mean Distribution of the Participants' Extent of Exposure to Digital Entrepreneurship

Range	**Interpretation**	**Frequency**	**Percentage**
4.51-5.00	Very High	11	6.67
3.51-4.50	High	58	35.15
2.51-3.50	Moderate	76	46.06
1.51-2.50	Low	19	11.52
1.00-1.50	Very Low	1	0.61
	Total	**165**	**100.0**
	Overall Mean	**3.38**	
	Interpretation	**Moderate**	
	SD	**0.78**	

Specific Indicators of Participants' Exposure to Digital Entrepreneurship		**M**	**Interpretation**	**SD**
1	I am familiar with using digital tools for business activities (e.g., social media marketing, e-commerce platforms).	3.93	High	0.93
2	I have learned about digital entrepreneurship through online resources and courses.	3.75	High	0.82
3	Digital entrepreneurship has influenced my interest in starting a business.	3.70	High	2.51
4	I am comfortable using online marketing tools (e.g., Facebook ads, Google ads).	3.54	High	1.10
5	I engaged in digital entrepreneurship as an essential part of modern business success.	3.48	Moderate	1.02
6	I stay updated with trends in digital entrepreneurship and e-commerce.	3.41	Moderate	0.98

7	I use digital payment platforms (e.g., PayPal, GCash, mobile banking) for business transactions.	3.25	Moderate	1.19
8	I actively engage in digital business activities, such as selling products or promoting brands online.	3.15	Moderate	1.09
9	I use data analytics to improve digital business performance.	3.15	Moderate	1.08
10	I have created or managed an online store or social media business page.	2.66	Moderate	1.21

Looking at the distribution of scores, nearly half of the participants (46.06%) rated their exposure as *Moderate*, while about a third (35.15%) reported *High* exposure. A smaller number (6.67%) reported a *Very High* level of exposure, while 11.52 percent evaluated their exposure as *Low*, and only 0.61 percent indicated *Very Low* exposure. This distribution confirms that although participants have some exposure to digital entrepreneurship, there are opportunities to enhance this exposure through structured digital learning initiatives, improved access to online entrepreneurial resources, and better integration of digital platforms into entrepreneurial education.

The highest-rated indicators reveal the areas where participants have greater exposure to digital entrepreneurship. Familiarity with digital tools for business activities such as social media marketing and e-commerce platforms received the highest rating (M = 3.93, SD = 0.93), followed by learning about digital entrepreneurship through online resources and courses (M = 3.75, SD = 0.82). Digital entrepreneurship's influence on interest in starting a business also received a high rating (M = 3.70), though with considerable variability (SD = 2.51), suggesting significant differences in participants' experiences with this influence. Comfort with using online marketing tools was also rated highly (M = 3.54, SD = 1.10). These findings show that participants have good exposure to basic digital business tools and learning resources.

In contrast, lower-rated indicators highlight areas with less exposure. Creating or managing an online store or social media business page received the lowest rating (M = 2.66, SD = 1.21), followed by active engagement in digital business activities (M = 3.15, SD = 1.09) and using data analytics to improve digital business performance (M = 3.15, SD = 1.08). These lower ratings for practical and technical aspects highlight the need for more experiential learning, practical application, and technical skill development in entrepreneurship education. As noted by Smith and Taylor (2023) and Mendoza et al. (2023), practical engagement and technical skill acquisition are essential for effective digital entrepreneurship education.

Based on these findings, while participants have moderate exposure to digital entrepreneurship concepts and tools, there is a clear need to enhance practical experience and technical skills. Educational institutions should consider incorporating more hands-on digital business activities, providing opportunities for students to create and manage online businesses, and developing technical skills in areas such as data analytics. By addressing these gaps, educators can better prepare students for the increasingly digital business landscape and improve their overall digital entrepreneurial capabilities.

Problem 3. What are the participants' attitudes towards entrepreneurship?

Table 3 shows the frequency, percentage, and mean distribution of the participants' Attitudes Towards Entrepreneurship. The overall mean score of 4.01 (SD = 0.64) falls within the *High* range (3.51-4.50), showing that participants generally had positive attitudes toward entrepreneurship. This indicates that participants have a strong inclination toward entrepreneurial thinking and activities.

Looking at the distribution of scores, more than half of the participants (55.76%) rated their attitudes as *High*, with an additional 20.61 percent rating them as *Very High*. This means that over 76 percent of participants have positive attitudes toward entrepreneurship. Approximately one-fifth (21.21%) rated their attitudes as *Moderate*, and only a small minority (2.42%) indicated *Low* attitudes, with no ratings in the *Very Low* category. This distribution confirms the overall positive entrepreneurial mindset among participants. These findings align with research by Aloulou and Fayolle (2023) and Nguyen et al. (2023), which emphasizes the importance of cultivating positive entrepreneurial attitudes as a critical factor influencing entrepreneurial intentions and activities.

Table 3 Frequency, Percentage and Mean Distribution of the Participants' Attitudes Towards Entrepreneurship

Range	**Interpretation**	**Frequency**	**Percentage**
4.51-5.00	Very High	34	20.61
3.51-4.50	High	92	55.76
2.51-3.50	Moderate	35	21.21
1.51-2.50	Low	4	2.42
1.00-1.50	Very Low	0	0.00
	Total	**165**	**100.0**
	Overall Mean	**4.01**	
	Interpretation	**High**	
	SD	**0.64**	

Specific Indicators of Participants' Attitudes Towards Entrepreneurship		**M**	**Interpretation**	**SD**
1	I believe entrepreneurship can provide career opportunities.	4.31	High	0.75
2	I admire successful entrepreneurs and aspire to be one.	4.30	High	0.77
3	I see challenges in entrepreneurship as opportunities for growth.	4.24	High	0.75
4	I am determined to overcome obstacles to achieve my business goals.	4.22	High	0.82
5	I see entrepreneurship as a viable career option for my future.	4.05	High	0.89
6	I am willing to take risks to achieve business success.	4.04	High	0.87
7	I am motivated to develop the necessary skills to become an entrepreneur.	3.98	High	0.84
8	I enjoy taking initiative and leading business-related activities.	3.72	High	0.91
9	I prefer entrepreneurship over working a regular job.	3.67	High	1.03
10	I am confident in my ability to start and run a business.	3.56	High	0.88

The highest-rated indicators reveal the areas where participants showed the most positive attitudes toward entrepreneurship. The belief that entrepreneurship can provide career opportunities received the highest rating (M = 4.31, SD = 0.75), followed closely by admiration for successful entrepreneurs and aspiration to be one (M = 4.30, SD = 0.77), and seeing challenges in entrepreneurship as opportunities for growth (M = 4.24, SD = 0.75). Participants also showed strong determination to overcome obstacles to achieve business goals (M = 4.22, SD = 0.82) and viewed entrepreneurship as a viable career option (M = 4.05, SD = 0.89). These findings show that participants have strong positive perceptions of entrepreneurship as a career path and demonstrate a growth mindset regarding entrepreneurial challenges.

While still rated as *High*, some indicators received lower scores. Confidence in the ability to start and run a business received the lowest rating (M = 3.56, SD = 0.88), followed by preference for entrepreneurship over working a regular job (M = 3.67, SD = 1.03) and enjoying taking initiative and leading business-related activities (M = 3.72, SD = 0.91). The lower rating for confidence suggests some underlying uncertainty or self-doubt

among participants about their entrepreneurial readiness or practical capabilities. This aligns with research by Sánchez and Sánchez (2023) that emphasizes the importance of self-efficacy and confidence in predicting entrepreneurial ambitions and participation.

Based on these findings, while participants generally have positive attitudes toward entrepreneurship, there is a need to build greater confidence in their entrepreneurial abilities. Educational institutions should consider enhancing experiential learning opportunities, practical engagement in entrepreneurial activities, and targeted skill-building programs to boost confidence. By addressing these gaps, educators can build on the already positive attitudes and better prepare students for entrepreneurial pursuits.

Problem 4. **What is the participants' level of entrepreneurial skills in terms of:**

4.1 Marketing Skills;
4.2 Decision-making Skills;
4.3 Problem-solving Skills; and
4.4 Organizational Skills?

Table 4 presents the Summary Table of Entrepreneurial Skills. The overall mean score of 3.70 (SD = 0.50) falls within the *High* range (3.51-4.50), showing that participants generally had a positive assessment of their entrepreneurial skills across all dimensions. This indicates that participants feel confident in their overall entrepreneurial capabilities, though there are variations across different skill areas.

Table 4 Summary Table of Entrepreneurial Skills

Dimensions	**Mean**	**Interpretation**	**SD**
Marketing Skills	3.67	High	0.64
Decision-making Skills	3.72	High	0.58
Problem-solving Skills	3.57	High	0.50
Organizational Skills	3.83	High	0.57
Overall Entrepreneurial Skills	**3.70**	**High**	**0.50**

Looking at the different dimensions, organizational skills received the highest mean rating (M = 3.83, SD = 0.57), demonstrating that participants feel most confident in their ability to manage time, tasks, and business operations efficiently. This finding aligns with Harper's (2023) research indicating that organizational competencies often form the foundation for other entrepreneurial skills and are frequently emphasized in early entrepreneurial education. Participants' confidence in these skills likely reflects their experience with basic organizational practices in educational and personal contexts.

Decision-making skills ranked second highest (M = 3.72, SD = 0.58), reflecting participants' perceived ability to evaluate options and make informed business decisions. Thompson and MacMillan (2023) note that effective decision-making is particularly critical in entrepreneurial environments characterized by uncertainty and limited information. The relatively high rating in this area indicates that participants feel reasonably prepared to navigate decision points in entrepreneurial contexts, though as previously discussed, they feel less confident about making decisions under pressure or time constraints.

Marketing skills received the third highest rating (M = 3.67, SD = 0.64), showing that while participants feel confident in their basic marketing abilities, there may be room for improvement in more specialized areas. As Kotler and Keller (2023) emphasize, marketing competencies are increasingly complex in today's digital business landscape, requiring both traditional marketing knowledge and technical digital marketing skills. The moderate rating likely reflects participants' recognition of gaps in their more advanced or technical marketing capabilities, particularly in digital advertising tools as noted in the detailed analysis.

Problem-solving skills received the lowest mean rating (M = 3.57, SD = 0.50), though still within the *High* range. This comparatively lower score highlights the need for additional experiential learning opportunities that enhance critical thinking, adaptability, and data-informed problem-solving. Baron and Shane (2023) argue that problem-solving capabilities are among the most challenging entrepreneurial skills to develop, requiring both analytical thinking and creative approaches to novel situations. The lower rating in this dimension, particularly in data-driven problem-solving, points to an area for targeted educational improvement.

These findings have important implications for entrepreneurial education. While participants generally feel confident across all skill dimensions, the variation in ratings identifies specific areas for enhancement. The results support Neck and Greene's (2023) assertion that effective entrepreneurship education must integrate theoretical knowledge with practical experiences to help students develop confidence and competence in key skill areas. Educational programs should maintain their focus on organizational and decision-making skills while enhancing their emphasis on marketing and problem-solving capabilities, particularly in areas related to digital marketing tools and data-informed problem-solving.

The overall *High* rating across all skill dimensions is encouraging for entrepreneurial readiness, but the variation in scores provides valuable guidance for curriculum development. As Kuratko and Morris (2023) state, entrepreneurship education should be tailored to address specific skill gaps through hands-on, context-relevant training and real-world simulations. By targeting the identified areas of lower confidence, particularly problem-solving and advanced marketing skills, educators can better prepare students for the multifaceted demands of entrepreneurial endeavors.

Problem 5. Do the participants' entrepreneurial learning, digital exposure, and attitudes towards entrepreneurship significantly influence their entrepreneurial skills?

Ho_1. The participants' entrepreneurial learning, digital exposure, and attitudes towards entrepreneurship do not significantly influence their entrepreneurial skills.

Ho_2: The digital exposure of Grade 12 Home Economics and ABM students are not significantly associated with their entrepreneurial skills.

Ho_3: The attitudes towards entrepreneurship of Grade 12 Home Economics and ABM students are not significantly associated with their entrepreneurial skills.

The regression analysis revealed a statistically significant model ($F(3,161) = 83.19$, $p = .001$) explaining the influence of entrepreneurial learning, digital exposure, and attitudes on entrepreneurial skills among senior high school students. With an R^2 value of .608, these three predictors collectively account for 60.8% of the variance in entrepreneurial skills development, leading to the rejection of the null hypothesis. Among the three factors, digital exposure emerged as the most powerful predictor ($B = .283$, $\beta = .441$, $p < .001$), aligning with de Oliveira and dos Santos' (2024) research highlighting the critical role of digital competencies in entrepreneurial readiness. Attitudes towards entrepreneurship ranked second in influence ($B = .201$, $\beta = .259$, $p < .001$), supporting Nguyen and Phan (2023) and Aloulou and Fayolle's (2023) findings on the relationship between positive entrepreneurial attitudes and skill development. Entrepreneurial learning, while significant ($B = .192$, $\beta = .198$, $p = .003$), demonstrated a comparatively smaller influence.

These findings carry important implications for entrepreneurial education, suggesting that educational institutions should prioritize the integration of digital competencies into their entrepreneurship curricula, including training in social media marketing, e-commerce operations, and digital business applications. The strong influ

ence of attitudes highlights the importance of fostering positive entrepreneurial mindsets alongside skill development through exposure to successful role models, discussions of entrepreneurship as a viable career path, and activities that build entrepreneurial self-efficacy. While entrepreneurial learning showed a lesser influence, its significant contribution confirms the continued importance of structured educational experiences, though suggesting that traditional classroom instruction alone may be insufficient.

The explanatory power of the model ($R^2 = .608$) indicates that approximately 39.2% of the variance in entrepre

neurial skills remains unexplained, potentially attributable to other factors not included in the study such as entrepreneurial self-efficacy, family background, peer influence, access to mentorship, and cultural context. Santos and Liguori (2023) identified entrepreneurial self-efficacy as a key predictor of entrepreneurial actions, while Edelman and Yli-Renko (2023) highlighted the influence of family business exposure on skill development.

Table 11 Regression Analysis of the Influence of Participants' Entrepreneurial Learning, Digital Exposure, & Attitudes towards Entrepreneurship on their Entrepreneurial Skills

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.19	.199		5.97	.000
Entrepreneurial Learning	.192	.063	.198	3.04**	.003
Digital Exposure	.283	.044	.441	6.41**	.000
Attitude towards Entrepreneurship	.201	.052	.259	3.87**	.000
Model Summary					
$R = .780$ $R^2 = .608$ Adjusted $R^2 = .601$ $F(3,161) = 83.18$ $p = .001$					

Digital exposure's paramount influence reflects broader societal shifts toward technology-driven entrepreneurship, demonstrating that technological literacy has become a foundational component of entrepreneurial competence. The complementary influences of all three factors highlight the importance of a multifaceted approach to entrepreneurial development, with educational institutions and policymakers adopting integrated strategies that simultaneously address digital competencies, attitudinal factors, and structured learning experiences. As Xanthopoulou and Sahinidis (2024) note, entrepreneurial development is influenced by multiple categories of factors, requiring comprehensive approaches.

These findings suggest that entrepreneurship assessment and program evaluation should consider multiple outcomes beyond knowledge acquisition, measuring improvements in digital competencies, shifts in entrepreneurial attitudes, and traditional learning outcomes. For individual learners, the results offer valuable guidance for personal entrepreneurial development, recommending a balanced approach to skill development that enhances digital competencies, cultivates positive entrepreneurial attitudes, and engages in structured learning experiences, leading to well-rounded entrepreneurial capabilities rather than focusing exclusively on formal education or technical skills in isolation.

CONCLUSIONS

This study reveals how school and home environments collaboratively shape students' entrepreneurial development, with participants reporting positive assessments of both learning settings. School-based learning provides structured guidance through formal curriculum and teacher support, while home-based experiences offer complementary exposure that varies by family context. Despite this foundation, participants reported only moderate exposure to digital entrepreneurship, suggesting familiarity with basic business tools but limited engagement with practical applications. This finding highlights a critical need for enhanced hands-on activities focused on digital skills development, including creating online businesses and effectively utilizing digital platforms to prepare students for today's technology-driven business landscape.

Students demonstrated generally positive attitudes toward entrepreneurship, viewing it as a worthwhile and achievable career path while expressing motivation to pursue entrepreneurial activities. However, some hesitation regarding their ability to establish and manage businesses suggests that enthusiasm should be reinforced through confidence-building experiences and real-world application opportunities. Self-assessment of entrepreneurial skills revealed good overall competency in marketing, decision-making, problem-solving, and organizational abilities, though technical areas like data analysis and digital advertising were rated somewhat

lower, indicating room for improvement in specialized practical skills.

The findings demonstrate that entrepreneurial learning, digital exposure, and positive attitudes function as interconnected factors in developing students' entrepreneurial capabilities. This integrated relationship suggests educational institutions should design comprehensive programs that simultaneously address all three elements through combined learning experiences, practical applications, and supportive environments. By intentionally nurturing these complementary factors, schools can more effectively prepare students with both the confidence and competence needed to successfully pursue entrepreneurial opportunities in an increasingly digital business ecosystem.

RECOMMENDATIONS

Based on the study's findings, a comprehensive set of recommendations targets all stakeholders in the entrepreneurial education ecosystem. Students are encouraged to proactively engage with entrepreneurship programs, explore digital platforms to enhance their technological capabilities, and build self-confidence through practical business activities. School administrators should facilitate experiential learning opportunities through business fairs and simulations, forge connections with local entrepreneurs for mentorship, and ensure accessibility of entrepreneurial resources. Teachers are advised to incorporate practical tasks like business plan creation, integrate digital entrepreneurship topics into their curriculum, and design scenarios that develop decision-making skills under various conditions. Parents can support entrepreneurial development by involving children in home-based business activities, providing opportunities to participate in family businesses, and sharing personal experiences to inspire entrepreneurial mindsets. Future researchers should expand investigation into additional influencing factors such as peer influence and self-efficacy, evaluate specific interventions like digital entrepreneurship training, and conduct comparative analyses across different educational contexts to advance understanding of effective entrepreneurial education approaches.

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