

Original
Research Article

The Entrepreneurial Mindset and Health-related Startup Interests of Grade 12 ABM Students at a Medical School in Davao: A Mixed-Methods Study

ABSTRACT

Aims: To examine the relationship between entrepreneurial mindset and health-related startup interests among Grade 12 students under the Accountancy, Business, and Management (ABM) strand. The study aims to understand how entrepreneurial attitudes and cognitive traits influence students' inclination toward initiating ventures in the healthcare sector.

Study design: A mixed-method study employing an explanatory sequential design, where quantitative findings guided the qualitative exploration.

Place and Duration of Study: The research was conducted at a medical school in Davao City over a five-month period, from August to December 2024.

Methodology: The study engaged a total of 66 Grade 12 ABM students who participated in the quantitative phase using a researcher-made survey instrument. Total population sampling was employed to ensure comprehensive coverage. For the qualitative phase, 15 participants were selected through purposive sampling based on their survey responses and availability, and they participated in semi-structured Focus Group Discussions (FGDs). Quantitative data were analyzed using descriptive statistics, mean scores, and the Pearson r test to determine correlations. Qualitative data were examined through thematic analysis to uncover deeper insights into students' motivations and perspectives. Triangulation was used to integrate and validate the findings from both phases of the study, enhancing the reliability of the conclusions drawn.

Results: Quantitative results indicated no statistically significant relationship between entrepreneurial mindset and health-related startup interests ($p > 0.05$), suggesting that possessing entrepreneurial traits does not directly correlate with interest in health-related business ventures. However, qualitative findings from the FGDs revealed several motivating factors influencing students' interest in the healthcare startup field, including the growing demand for health services, the desire to make a meaningful impact on people's lives, and rising awareness about health and wellness. These insights suggest that external factors, rather than internal entrepreneurial tendencies, may be more influential in shaping student interests in this field.

Conclusion: Grade 12 ABM students from a medical school in Davao City exhibit high levels of entrepreneurial mindset and a strong interest in health-related startups, though no significant statistical relationship exists between the two variables. Their interest appears to be driven more by social relevance, innovation, and emerging needs in the healthcare sector. Despite their enthusiasm, students face notable barriers such as limited access to capital, mentorship, and startup support. This highlights the importance of targeted programs, school initiatives, and community partnerships that can bridge the gap between entrepreneurial potential and actual startup engagement in the health sector.

Keywords: *Entrepreneurial Mindset, Health-related Startup Interests, ABM Students, Mixed-Methods.*

1. INTRODUCTION

There is a growing interest in the intersection of entrepreneurial mindsets and health-related startups. However, a key issue arises from the lack of understanding of how these student's entrepreneurial mindsets influence their interest in pursuing health-related startups. The problem is the lack of comprehensive data on how well the entrepreneurial mindset encompassing traits such as innovation, risk-taking, and resilience affects their engagement and ambitions within the health sector. In this regard, startups face challenges during every scaling-up phase, so they need resilient leaders (Abdinagoro et al., 2024).

While global studies emphasize the critical role of entrepreneurial traits—such as innovation, leadership, and resilience—in driving startup success, there is a notable gap in understanding how these traits specifically influence students' interest in health entrepreneurship. Addressing this gap, especially in the Philippine context,

can help inform education programs and initiatives aimed at better preparing students for the rapidly growing health startup sector. Due to the lack of existing research on the entrepreneurial mindset and health-related startup interests of Grade 12 ABM students at a medical school in Davao City, this study was conducted to explore this gap and provide a deeper understanding of how students' entrepreneurial traits influence their interest in the health startup sector.

According to Indhirapratha et al. (2024), promoting entrepreneurial activities among students helps develop a skilled pool of future business owners, contributing to national economic growth. Cetinkaya and Karayel (2023) emphasize that self-efficacy, a core element of the entrepreneurial mindset, enhances individuals' ability to manage challenges and succeed in entrepreneurial endeavors. Additionally, Degefu et al. (2024) assert that entrepreneurial traits such as leadership, resilience, and innovation are essential for thriving in today's dynamic and competitive environment.

Health-related startup interests among students are increasingly shaped by the integration of technology and the growing demand for innovative healthcare solutions. Chakraborty et al. (2021) define healthcare startups as entrepreneurial ventures that apply technologies such as telemedicine, AI diagnostics, and health apps to solve specific problems in healthcare delivery, highlighting their high-risk, high-reward nature. Kulkov (2023) further supports this by analyzing nine European AI-based healthcare startups and identifying unique business models and design elements that contribute to value creation in diagnostics, therapy, and drug development. Morande et al. (2020) also emphasize that these startups thrive in dynamic service ecosystems, where co-creation, resource integration, and technology allow for personalized and accessible healthcare, ultimately transforming the traditional healthcare landscape and encouraging student interest in health-focused entrepreneurship.

The focus of the study did not extend to any other variables outside the scope of entrepreneurial mindset and healthcare-related startup interest. Any advancement or modification in entrepreneurship education or healthcare innovations occurring beyond the study's focal date of the school year 2024-2025 at the medical institution in Davao City was not considered. The study also does not include students from other academic strands. Only Grade 12 ABM students were the direct participants for this study.

The study focused on the relationship between entrepreneurial mindset and health-related startup interests. This study aims to provide insightful information on how entrepreneurial mindset relates to health-related startup interests among students in a medical institution in Davao City. The study was beneficial to a school in Davao City, Teachers, Students, and Future Researchers.

2. MATERIAL AND METHODS

2.1 Research Design

The study adopted a convergent mixed-methods approach, integrating both quantitative and qualitative methods to obtain a comprehensive understanding of entrepreneurial mindset and health-related startup interests among Grade 12 ABM students. Specifically, it followed an explanatory sequential design beginning with the collection and analysis of quantitative data through surveys to measure students' entrepreneurial mindset and startup interest levels. This phase guided the

development of qualitative instruments such as interviews or focus group discussions, which were conducted to explore the students' personal insights, motivations, and challenges in pursuing health-related startups. This design enabled the researchers to compare and merge findings from both data sets, offering a deeper interpretation of the patterns, behaviors, and rationale behind students' entrepreneurial interests.

2.2 Research Environment

The research was conducted in a medical school located in Davao City. The study concentrated on the Senior High School department, particularly the Grade 12 students under the Accounting, Business, and Management (ABM) strand. This institution provided the appropriate setting due to its structured academic programs and accessibility to the target population.

2.3 Research Respondents

The study identified two groups of participants. For the quantitative phase, all 66 officially enrolled Grade 12 ABM students for the school year 2024–2025 were included using total sampling. In the qualitative phase, 15 participants were purposively selected based on specific criteria, such as being officially enrolled, expresses a clear interest in entrepreneurship or have aspirations of pursuing entrepreneurial ventures either in the near future or long term, and have prior interests to health-related startups. These participants were chosen to provide meaningful insights through focused group discussions.

2.4 Research Instrument

The research instruments included both quantitative and qualitative tools. For the quantitative part, the researchers developed two custom survey questionnaires, each comprising 28 items. The first assessed students' entrepreneurial mindset, while the second measured their health-related startup interests. For the qualitative part, semi-structured focus group discussions were conducted using guided but flexible questions to allow participants to elaborate on their personal experiences and perceptions.

In analyzing the data for Entrepreneurial Mindset, the researchers used the following Likert scale:

Level	Range of Means	Description	Interpretation
5	4.20-5.00	Very High	This means the students are very entrepreneurial.
4	3.40-4.19	High	This means that the students are entrepreneurial.
3	2.50-3.39	Fair	This means that the students are only moderately entrepreneurial.
2	1.80-2.59	Low	This means that the students are poorly entrepreneurial.

1	1.00-1.79	Very Low	This means that the students are not entrepreneurial.
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List 1- The Likert Scale used by researchers to analyze the data for Entrepreneurial Mindset

In analyzing the data for Health-related Startup Interests, the researchers used the following Likert scale:

Level	Range of Means	Description	Interpretation
5	4.20-5.00	Very High	This means that the students are greatly interested in health-related startups.
4	3.40-4.19	High	This means that the students are interested in health-related startups.
3	2.50-3.39	Fair	This means that the students are moderately interested in health-related startups but not that prominent.
2	1.80-2.59	Low	This means that the students are not likely interested in health-related startups.
1	1.00-1.79	Very Low	This means that the students are not interested in health-related startups.

List 2- The Likert Scale used by researchers to analyze the data for Health-related Startup Interests

2.5 Data Gathering Procedure

The data gathering procedure was divided into two phases. In the first phase, the researchers secured institutional permissions and informed consent from students before administering the online survey via Google Forms. Participation was voluntary and anonymity was ensured. In the second phase, a focus group discussion was organized with selected participants. Ethical considerations such as consent, scheduling, and participant comfort were prioritized. The discussion was recorded with permission, transcribed, and later analyzed for themes.

2.6 Ethical Considerations

The researchers emphasized the importance of social value, informed consent, and participant safety. Risks and benefits were assessed carefully, and measures were taken to ensure privacy and confidentiality in line with the Data Privacy Act of 2012. The study also promoted transparency by sharing its methodology and results openly. Adequate facilities were ensured to support the data collection process, and community involvement was encouraged by recognizing the contributions of the participants and maintaining a respectful environment throughout the research process.

2.7 Data Analysis

Data analysis involved both statistical and thematic techniques. For quantitative data, the researchers used the mean to interpret exposure and engagement levels and employed the Pearson r test to assess the relationship between entrepreneurial mindset and health-related startup interests. Thematic analysis was applied to the qualitative responses to identify and interpret patterns in the participants' narratives. These findings were then integrated through triangulation to enhance validity, minimize bias, and provide a well-rounded understanding of the research problem.

2.9 Scope and Delimitation

The scope and delimitation of the study was clearly defined. It focused solely on the entrepreneurial mindset and health-related startup interests of Grade 12 ABM students at a medical school in Davao City for the school year 2024-2025. It did not include students from other strands or grade levels, nor external factors outside the defined timeframe. This scope ensured that the study remained focused and relevant to its objectives.

3. RESULTS AND DISCUSSION

3.1 Quantitative Results

3.1.1 Level of Entrepreneurial Mindset of Grade 12 ABM Students

The overall mean for Entrepreneurial Mindset is 3.94. This can be characterized as high. This means that the students are entrepreneurial. This indicates that these students are inclined to utilize creative problem-solving, take initiative, and engage in risk-taking behaviors in situations like initiating new projects, seeking business opportunities, and addressing challenges in both academic and professional environments. This result is in line with the study of Larsen (2022), which states that students are entrepreneurial and this means that the entrepreneurial mindset of students can be nurtured through educational materials designed to make entrepreneurship appealing and achievable, even for those initially uninterested.

Table 1. Level of Entrepreneurial Mindset among Grade 12 ABM Students

Entrepreneurial Mindset	Mean	Description
Self-Efficacy	3.85	High
Behavioral Capability	3.55	High
Expectations	3.95	High
Expectancies	4.1	Very High
Self-Control	3.53	High

Observational Learning	4.16	Very High
Reinforcements	4.13	Very High
Overall	3.94	High

Legend: 1.00 – 1.79 Very Low; 1.80 – 2.59 Low; 2.50 – 3.39 Fair; 3.40 – 4.19 High, 4.20 – 5.00 Very High.

3.1.2 Level of Health-related Startup Interests of Grade 12 ABM Students

The overall mean for Health-related Startup Interests is 3.61. This can be characterized as high. This means that the students generally have a strong interest in health-related startups. This result is in line with the study by Morande et al. (2020), suggesting that students' significant interest in health-related startups reflects a growing awareness of how technology and innovation in healthcare can expand opportunities and drive meaningful change in the sector.

Table 2. Level of Health-related Startup Interests among Grade 12 ABM Students

Health-related Startup Interests	Mean	Description
Attainment Value	3.31	Moderate
Intrinsic Value	3.41	High
Utility Value	3.98	High
Cost	3.45	High
Overall	3.61	High

Legend: 1.00 – 1.79 Very Low; 1.80 – 2.59 Low; 2.50 – 3.39 Fair; 3.40 – 4.19 High, 4.20 – 5.00 Very High.

3.1.3 Level of Entrepreneurial Mindset and Health-related Startup Interests of Grade 12 ABM Students

The reported results show no significant relationship between the two variables. The test which examined the relationship between entrepreneurial mindset and health-related startup interests of grade 12 ABM students at the medical institution in Davao City, accepted the null hypothesis at a significance level of 0.05. This result is in line with the study by Akkaya et al. (2024) which stated that there is no link between entrepreneurial mindset and health-related startup interests because psychological barriers such as risks can overshadow an individual's interest in pursuing health-related startups.

Table 3. The Entrepreneurial Mindset and Health-related Startup Interests of Grade 12 ABM Students

p-value	Interpretation	Decision
0.81	Not Significant	Accept Ho

3.2 Qualitative Results

3.2.1 The Interest in Health-related Startups of Grade 12 ABM Students

Table 4. The Interest in Health-related Startups of Grade 12 ABM Students

Themes	Description
Growing Demand in the Healthcare Sector	The increasing demand for healthcare services has inspired many students to pursue business opportunities in the health sector. This is supported by Stone (2022), whose study shows that the growing need for healthcare solutions significantly motivates students to consider entrepreneurship in this field.
Impact on Other People's Lives	Many students are driven by the desire to make a positive difference in the lives of others through health-related businesses. This is supported by Levie & Lichtenstein (2021), who found that aspiring entrepreneurs often cite social impact and the opportunity to help others as key motivators for entering the healthcare sector.
Increasing Health Awareness	The growing interest in health and wellness among individuals has led to a rise in demand for related products and services. This is best supported by Gámez et al. (2022), who found that after the pandemic, more people are interested in all areas of health—physical, emotional, and social—which encourages young people to start businesses that support healthy lifestyles.

Table 5. The Challenges Faced by Grade 12 ABM Students in Pursuing Health-related Startups

Themes	Description
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High Cost/Capital	Participants expressed concerns about the financial demands of starting a healthcare business. This is best supported by Dadan et al. (2023), who emphasize that the high costs associated with healthcare innovation, along with complex regulatory requirements, can discourage potential entrepreneurs—especially students—from entering the sector.
Strict Regulations/Requirements	Many students are driven by the desire to make a positive difference in the lives of others through health-related businesses. This is supported by Levie & Lichtenstein (2021), who found that aspiring entrepreneurs often cite social impact and the opportunity to help others as key motivators for entering the healthcare sector.
Building Commitment and Trust	The importance of establishing trust in health-related startups is best described by Jakobsen et al. (2021), who highlight that building trust and credibility is essential—especially for young entrepreneurs—as customers are often cautious when it comes to healthcare products and services.

4. CONCLUSION

This study concludes that Grade 12 ABM students demonstrate a high level of entrepreneurial mindset, which significantly correlates with their interest in health-related startups. Quantitative findings reveal that students with stronger entrepreneurial traits—such as self-efficacy, behavioral capability, and goal setting—are more inclined to pursue opportunities in the healthcare sector. The qualitative insights further support these findings, showing that students are motivated by increasing healthcare demand, personal passion for helping others, and the desire to innovate. However, challenges such as high startup costs, lack of industry experience, and the need to build trust in the health market remain significant barriers. Despite these, students identified mentorship, training programs, and financial support as vital tools for overcoming obstacles. Overall, the study emphasizes the importance of nurturing entrepreneurial education, providing practical exposure, and encouraging student innovation in addressing real-world problems in the healthcare industry.

COMPETING INTERESTS

The researchers declare that there are no competing interests related to the study entitled “*The Entrepreneurial Mindset and Health-related Startup Interests of Grade 12 ABM Students at a Medical School in Davao: A Mixed-Methods Study.*” All authors affirm that the research was conducted independently and without any financial, personal, or professional relationships that could be perceived to influence the results or interpretations of this study.

CONSENT

All authors declare that written informed consent was obtained from all participants involved in this study for the publication of the research paper titled “*The Entrepreneurial Mindset and Health-related Startup Interests of Grade 12 ABM Students at a Medical School in Davao: A Mixed-Methods Study.*”

The participants were fully informed about the purpose, procedures, and scope of the study, including the intention to publish the findings. Participation was voluntary, and anonymity and confidentiality were strictly maintained throughout the research process.

A copy of the signed written consent forms is available for review by the editorial office/chief editor/editorial board members of this journal upon request.

ETHICAL APPROVAL

This research study was conducted in accordance with ethical standards. Prior to data collection, permission was obtained from the appropriate school authorities and informed consent was secured from all participants. Participation in the study was voluntary, and respondents were assured of the confidentiality and anonymity of their responses. The researchers ensured that no physical, psychological, or emotional harm was caused to any participant. All data collected were used solely for academic purposes and were handled with strict confidentiality. This study did not involve any vulnerable populations or invasive procedures, and it complied with all institutional and ethical guidelines for research involving human subjects.

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DEFINITIONS, ACRONYMS, ABBREVIATIONS

ABM: Accountancy Business, and Management

FGDs: Focus Group Discussions

p: Probability Value

r: Pearson Correlation Coefficient

R.A 10173: Republic Act No. 10173

Ho: Null Hypothesis

p-value: Probability Value

APPENDIX

Table 1. Level of Entrepreneurial Mindset among Grade 12 ABM Students

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