

Students' Entrepreneurial Competencies on Enhancing Product Development and Financial Management Skills

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Abstract— The study determined the effect between students' entrepreneurial competencies on enhancing product development and financial management. Specifically, it identifies the level of students' entrepreneurial competencies, product development skills, and financial management skills. Additionally, it tested the significant relationship between entrepreneurial competencies on product development skills, and financial management skills. A correlational research design was used in this study. The respondents were 300 Grade 10 students from selected public secondary schools in Calauan, Laguna who were enrolled in entrepreneurship-related subjects or activities. Data were gathered through a researcher-made questionnaire. The statistical tools used for data analysis were weighted mean, standard deviation, and Pearson correlation coefficient. The results indicated that the students' entrepreneurial competencies in terms of risk-taking, decision-making, creativity and innovation, and adaptability and resilience were highly competent. Additionally, the students' product development skills, including idea generation, prototyping, innovation in product design, adaptation to market trends, and efficient use of resources, were highly developed. Similarly, the students demonstrated highly developed financial management skills, particularly in budgeting, expense tracking, cash flow management, and the application of costing and pricing strategies. Furthermore, there were significant positive relationships between students' entrepreneurial competencies and both product development and financial management skills. This means that students who exhibited stronger entrepreneurial competencies also tended to perform better in developing products and managing financial resources effectively, with creativity and innovation showing the strongest relationship among the identified competencies. There is a significant positive relationship between students' entrepreneurial competencies and both their product development and financial management skills. Thus, the hypotheses stating that there is no significant relationship between students' entrepreneurial competencies and product development skills, and between students' entrepreneurial competencies and financial management skills, were rejected. Therefore, it is concluded that the students have gained sufficient entrepreneurial knowledge and skills through their learning experiences, which they were able to apply effectively in both financial management and product development activities. Students who demonstrate stronger abilities in risk-taking, decision-making, creativity and innovation, and adaptability and resilience are more likely to excel in idea generation, product design, adapting to market trends, and utilizing resources efficiently. Additionally, these competencies enable students to manage their finances more effectively, as those with well-developed entrepreneurial skills are better equipped to prepare budgets, monitor cash flow, and apply effective costing and pricing strategies. Considering the findings, the study recommended that students should be given more opportunities to turn their ideas into actual

prototypes through simple hands-on activities, mock product making, and guided output-based tasks and regular practice in building and testing sample products may help students become more confident in translating ideas into something concrete.

Keywords— Entrepreneurial Competencies, Product Development Skills, Financial Management, Grade 10 Students, Entrepreneurship Education.

I. INTRODUCTION

Entrepreneurial competencies have been identified as crucial determinants of success in both product development and financial management, cited by Devi and Upadhaya (2024). These competencies encompass a range of skills and attributes that enable individuals to effectively navigate the challenges of entrepreneurship. Over the past decade, numerous studies have highlighted the significance of these competencies in fostering entrepreneurial success.

In the context of product development, entrepreneurial competencies facilitate the identification of market opportunities, the generation of innovative ideas, and the efficient management of resources. These competencies enable entrepreneurs to translate creative concepts into viable products that meet market demands. Moreover, they play a pivotal role in adapting to changing market conditions and technological advancements, ensuring the sustainability and competitiveness of new products, emphasized by Alkaabi and Senghore (2024).

Financial management, on the other hand, is integral to the operational success of entrepreneurial ventures, asserted by Slabová (2021). Entrepreneurial competencies related to financial management encompass budgeting, financial planning, and resource allocation. These competencies ensure that entrepreneurs can make informed financial decisions, optimize resource utilization, and maintain financial stability. The relationship between entrepreneurial competencies, product development, and financial management is multifaceted and interdependent. Enhancing entrepreneurial competencies in these areas can significantly contribute to the success and sustainability of entrepreneurial ventures, mentioned by Yusof (2024). Therefore, it is imperative to prioritize the development of these competencies through comprehensive education and training initiatives.

The development of entrepreneurial competencies can be fostered through targeted education and training programs,

emphasized by Senghore and Alkaabi (2024). These programs aim to equip individuals with the necessary skills and knowledge to excel in both product development and financial management. By integrating practical experiences and theoretical learning, such programs contribute to the holistic development of entrepreneurial competencies. This integrated approach not only enhances technical skills but also helps cultivate the entrepreneurial mindset needed to navigate complex business environments. Furthermore, providing mentorship and real-world exposure strengthens the application of these competencies in dynamic markets.

The insights gained from understanding the dynamics of entrepreneurial competencies can inform policy decisions and strategies aimed at promoting entrepreneurship. Widharma et al. (2024) suggested that by fostering an environment that supports the development of these competencies, policymakers can stimulate entrepreneurial activity and economic growth.

Moreover, promoting a culture of continuous learning and adaptability is critical in preparing future entrepreneurs to face challenges in an ever-changing business environment. Building a supportive ecosystem that encourages innovation and resilience can help entrepreneurs overcome obstacles and seize new opportunities. By integrating entrepreneurial competencies into the growth and job creation, further bolstering national economic development. The continuous enhancement of entrepreneurial competencies in product development and financial management is essential for adapting to the evolving business landscape and achieving sustained entrepreneurial success.

1.1 Statement of the Problem

Problem/s which were addressed by the research

The study wanted to determine the effect between students’ entrepreneurial competencies on enhancing product development and financial management.

Specifically, it sought to answer the following research problems:

1. What is the level of students’ entrepreneurial competencies in terms of:
 - 1.1 risk taking;
 - 1.2 decision making;
 - 1.3 creativity and innovation; and
 - 1.4 adaptability and resilience?
2. What is the level of students’ product development skills in terms of:
 - 2.1 idea generation and prototyping;
 - 2.2 innovation and creativity in product design;
 - 2.3 adaptation to market trends and customer needs; and
 - 2.4 efficient use of resources in product creation?
3. What is the level of students’ financial management skills in terms of:
 - 3.1 budgeting and expense tracking;
 - 3.2 cash flow management; and
 - 3.3 costing and pricing strategies?
4. Is there a significant relationship between the students’ entrepreneurial competencies and product development skills?

5. Is there significant relationship between the students’ entrepreneurial competencies and financial management skills?

II. METHODOLOGY

A correlational research design was used in this study. The respondents were 300 Grade 10 students from selected public secondary schools in Calauan, Laguna who were enrolled in entrepreneurship-related subjects or activities. Data were gathered through a researcher-made questionnaire. The statistical tools used for data analysis were weighted mean, standard deviation, and Pearson correlation coefficient.

III. RESULTS AND DISCUSSION

This part discusses the results that were yielded from the treatment of the data that was gathered in this study. The following tabular presentations and discussions will further examine how entrepreneurial competencies is in relation to students’ abilities in product development and financial management.

Level of Students’ Entrepreneurial Competencies

In this study, the level of entrepreneurial competencies were described in terms of risk taking, decision-making, creativity and innovation, adaptability and resiliency and was determined through mean and standard deviation.

The following tables indicate teachers’ competence to successfully create, manage, and grow a business venture.

Table 1. Level of Students’ Entrepreneurial Competencies in Terms of Risk Taking

Statements	Mean	SD	Remarks
The students can...			
... take calculated risks when pursuing new business opportunities.	3.76	1.02	Agree
...demonstrate confidence in making decisions, even when outcomes are uncertain..	3.64	1.08	Agree
...identify potential challenges in a project and take appropriate steps to mitigate risks.	3.85	0.99	Agree
...stay motivated to explore innovative ideas despite possible setbacks.	4.04	0.93	Agree
...ctively pursue opportunities that require stepping out of one’s comfort zone.	3.92	1.01	Agree
Weighted Mean	3.84		
SD	1.01		
Verbal Interpretation			Highly Competent

Table 1 presents the level of students’ entrepreneurial competencies in terms of risk-taking. Students were manifested to keep motivated in exploring new ideas without being affected by possible complications. They also step out of their comfort zone to actively pursue opportunities. To mitigate risk, they determine possible challenges and make the appropriate steps needed. Students can also calculate risk when pursuing new business opportunities and were able to make sound decisions, even when they were uncertain about the result.

Students’ entrepreneurial competencies in terms of risk-taking attained the overall weighted mean of 3.84 with a standard deviation of 1.01, verbally interpreted as Highly Competent. This indicates that students show a high level of

entrepreneurial competence specifically in taking risks. They are not only confident in their ability to make decisions in uncertain situations but also demonstrate a proactive attitude towards seizing opportunities. Their willingness to step outside their comfort zones reflects a growing entrepreneurial mindset that is essential for navigating today's competitive business world. In summary, the results indicate that students are developing the entrepreneurial mindset necessary for future economic involvement, innovation, and business opportunities. Educational risk-taking produces positive results, which bring exciting learning experiences. Students exhibit a strong competency in risk-taking, showing confidence in pursuing new opportunities and managing uncertainties.

Table 2. Level of Students' Entrepreneurial Competencies in Terms of Decision Making

Statements	Mean	SD	Remarks
The students can...			
...make informed choices by carefully analyzing a available options before acting.	4.23	0.92	Strongly Agree
...demonstrate confidence in taking responsibility for the outcomes of decisions.	4.00	0.96	Agree
...evaluate risks and benefits when making business-related decisions.	3.86	0.99	Agree
...consider both short-term and long-term effects when deciding on business strategies.	3.81	1.10	Agree
...seek relevant information and opinions to improve the quality of decisions.	4.13	1.01	Agree
Weighted Mean	4.00		
SD	1.01		
Verbal Interpretation			Highly Competent

Table 2 presents the level of students' entrepreneurial competencies in terms of decision making.

The results show that students are strongest in making informed choices by carefully analyzing available options before acting, which obtained the highest mean score of 4.23 and was verbally interpreted as Strongly Agree. This suggests that students are generally careful and thoughtful when making decisions related to entrepreneurial activities. Seeking relevant information and opinions to improve the quality of decisions followed closely with a mean of 4.13, showing that students also value feedback and additional information before deciding. On the other hand, considering both short-term and long-term effects when deciding on business strategies obtained the lowest mean of 3.81, although it was still interpreted as Agree, which means that students are already practicing this skill but may still improve further in weighing future consequences.

Students' entrepreneurial competencies in terms of decision making attained an overall weighted mean of 4.00 with a standard deviation of 1.01, verbally interpreted as Highly Competent. This indicates that students demonstrate a high level of competence in making decisions that are careful, responsible, and relevant to entrepreneurial situations.

In summary, the findings show that students possess strong decision-making skills that can support sound judgment, accountability, and effective planning in entrepreneurial tasks. Students demonstrate well-developed decision-making skills,

particularly in analyzing options and evaluating risks, consistent with the importance of informed decisions.

Table 3. Level of Students' in terms of Creativity and Innovation

Statements	Mean	SD	Remarks
The students can...			
...generate original ideas to improve products or services.	4.11	0.97	Agree
...show openness to experimenting with new approaches and solutions.	3.96	1.00	Agree
Integrate knowledge from different sources to create innovative outputs.	3.97	0.96	Agree
...use of available tools and technology to enhance creative processes.	4.05	0.97	Agree
...actively contribute ideas that add value to group projects or ventures.	4.09	0.96	Agree
Weighted Mean	4.04		
SD	0.97		
Verbal Interpretation			Highly Competent

Table 3 presents the level of students' entrepreneurial competencies in terms of creativity and innovation. Among the indicators, generating original ideas to improve products or services got the highest mean score of 4.11, indicating that outputs. Actively contributing ideas that add value to group projects or ventures followed with a mean of 4.09, which shows that students do not only think creatively on their own but also share ideas in collaborative work. The use of available tools and technology to enhance creative processes also received a positive result with a mean of 4.05. Meanwhile, showing openness to experimenting with new approaches and solutions obtained the lowest mean score of 3.96, although it was still interpreted as Agree, which means that students are open to trying new ideas but may still need more confidence in doing so.

Students' entrepreneurial competencies in terms of creativity and innovation attained an overall weighted mean of 4.04 with a standard deviation of 0.97, verbally interpreted as Highly Competent. This indicates that students are highly competent in applying creativity and innovation in entrepreneurial activities. This high level of competency is crucial because creativity not only drives new product ideas but also enables students to respond dynamically to challenges, offering them the flexibility to pivot or improve based on feedback or market needs.

In summary, the findings suggest that students have strong creative and innovative abilities that can help them improve products, contribute ideas, and respond to entrepreneurial challenges more effectively. Creativity fosters problem-solving, a vital skill for entrepreneurs, as it allows them to explore unconventional solutions and find ways to differentiate their products or services in a competitive market.

Table 4 presents the level of students' entrepreneurial competencies in terms of adaptability and resilience.

The highest mean score of 4.12 was obtained by maintaining a positive mindset and adapting to changes in the environment. This suggests that students are generally capable of adjusting to changing situations, which is important in entrepreneurial settings where uncertainty is common. Demonstrating a willingness to seek help and guidance when encountering difficulties also received a high mean of 4.03,

showing that students are open to learning from others when challenges arise. Maintaining strong motivation even when faced with difficult circumstances followed with a mean of 3.99. In contrast, recovering quickly from failures or setbacks in academic and entrepreneurial tasks got the lowest mean of 3.68. Although this was still interpreted as Agree, it suggests that bouncing back from setbacks may still be one area where students need further support.

Table 4. Level of Students' in Terms of Adaptability and Resilience

Statements	Mean	SD	Remarks
The students can...			
...recover quickly from failures or setbacks in academic and entrepreneurial tasks.	3.68	1.09	Agree
...maintain strong motivation even when faced with challenging circumstances.	3.99	1.05	Agree
...demonstrate a willingness to seek help and guidance when encountering difficulties.	4.03	1.01	Agree
...effectively manage stress while balancing multiple responsibilities.	3.82	1.05	Agree
...maintain a positive mindset and adapt to changes in the environment.	4.12	1.03	Agree
Weighted Mean	3.93		
SD	1.06		
Verbal Interpretation	Highly Competent		

Students' entrepreneurial competencies in terms of adaptability and of 1.06, verbally interpreted as Highly Competent. This indicates that students are generally competent in adjusting to change, managing difficulties, and staying motivated.

In summary, the findings imply that students possess a strong level of adaptability and resilience, which are important in facing uncertainty, responding to pressure, and continuing despite setbacks. Students exhibit resilience and adaptability, crucial for overcoming challenges.

Level of Students' Product Development Skills

In this study, the level of students' product development skills was described in terms of idea generation and prototyping, innovation and creativity in product design, adaptation to market trends and customer needs, and efficient use of resources in product creation. These skills were measured and analyzed using the mean and standard deviation to determine the overall competence of students in developing viable and market-responsive products.

The following tables present the students' abilities to generate creative ideas, translate concepts into functional prototypes, design innovative and practical products, respond effectively to market and customer demands, and efficiently utilize available resources throughout the product development process.

Table 5 presents the level of students' product development skills in terms of idea generation and prototyping.

The highest mean score of 4.24 was obtained by seeking feedback from others to enhance the quality of product ideas, and this was verbally interpreted as Strongly Agree. This means that students recognize the value of suggestions and comments in improving their product concepts. Documenting high mean of 4.11, showing that students can manage their

ideas systematically. Frequently generating new product ideas that address specific customer needs received a mean of 3.93, while actively testing and refining product prototypes to improve functionality had a mean of 3.85. The lowest mean of 3.56 was recorded for transforming conceptual ideas into tangible prototypes effectively. Even if this was still interpreted as Agree, it suggests that turning ideas into actual models or prototypes remains a skill that may need more practice.

Table 5. Level of Students' Product Development Skills in Terms of Idea Generation and Prototyping

Statements	Mean	SD	Remarks
The students can...			
...frequently generate new product ideas that address specific customer needs.	3.93	1.03	Agree
...transform conceptual ideas into tangible prototypes effectively.	3.56	1.03	Agree
...actively test and refine product prototypes to improve functionality.	3.85	1.02	Agree
...seek feedback from others to enhance the quality of product ideas.	4.24	0.95	Strongly Agree
...document and organize ideas to ensure they can be developed into viable products.	4.11	0.94	Agree
Weighted Mean	3.94		
SD	1.02		
Verbal Interpretation	Highly Develop		

Students' product development skills in terms of idea generation and of 1.02, verbally interpreted as Highly Developed. This indicates that students have a strong level of development in generating, refining, and organizing product ideas.

In summary, the findings show that students can produce and improve product ideas, although they may still need more exposure to actual prototype development. Students demonstrate strong skills in generating product ideas and refining them through prototypes.

Table 6. Level of Students' Product Development Skills in Terms of Innovation and Creativity in Product Design

Statements	Mean	SD	Remarks
The students can...			
...incorporate innovative features into product designs to create differentiation.	3.92	1.03	Agree
...apply creative thinking to solve design challenges and improve usability.	4.14	1.87	Agree
...continuously search for ways to enhance products through unique design approaches.	4.14	0.92	Agree
...adapt creative concepts to meet both functional and aesthetic requirements.	4.02	0.95	Agree
...experiment with materials and techniques to create products that stand out in the market.	4.02	0.97	Agree
Weighted Mean	4.05		
SD	0.96		
Verbal Interpretation	Highly Develop		

Table 6 presents the level of students' product development skills in terms of innovation and creativity in product design. The two highest mean scores, both 4.14, were obtained by applying creative thinking to solve design challenges and improve usability, and by continuously searching for ways to enhance products through unique design approaches. These results suggest that students are able to think creatively and make improvements that increase both

usefulness and originality in product design. Adapting creative concepts to meet both functional and aesthetic requirements and experimenting with materials and techniques to create products that stand out in the market both received a mean of 4.02, showing that students can balance creativity with practicality. The lowest mean of 3.92 was given to incorporating innovative features into product designs to create differentiation. Although still interpreted as Agree, this may mean that students need more experience in making their product designs more distinctive.

Students' product development skills in terms of innovation and creativity in product design attained an overall weighted mean of 4.05 with a standard deviation of 0.96, verbally interpreted as Highly Developed. This indicates that students are highly developed in integrating creativity and innovation into product design. Their ability to produce designs that combine practical functionality with innovative features suggests that they are well-prepared to approach product development with both a creative and a technical mindset.

In summary, the results suggest that students are capable of producing product designs that are not only functional but also creative, useful, and appealing. These designs reflect an understanding of both market demands and the creative process, showcasing their ability to innovate effectively. Students show high competency in integrating creativity and innovation into their product designs.

Table 7. Level of Students' Product Development Skills in Terms of Adaptation to Market Trends and Customer Needs

Statements	Mean	SD	Remarks
The students can...			
...stay informed about current market trends and customer preferences.	4.19	1.03	Agree
...modify products based on customer feedback to better meet their needs.	4.18	1.00	Agree
...proactively adjust designs to align with evolving market demands.	3.92	1.00	Agree
...consider competitors' products when planning improvements or innovations.	3.85	1.00	Agree
...anticipate future trends and incorporate them into the product development process.	3.93	1.02	Agree
Weighted Mean	4.01		
SD	1.02		
Verbal Interpretation	Highly Develop		

Table 7 presents the level of students' product development skills in terms of adaptation to market trends and customer needs. The statement on staying informed about current market trends and customer preferences obtained the highest mean score of 4.19. This indicates that students are aware of the importance of keeping up with market changes when developing products. Modifying products based on customer feedback to better meet their needs followed closely with a mean of 4.18, showing that students value customer responses in improving their outputs. Anticipating future trends and proactively adjusting designs to match evolving market demands received means of 3.93 and 3.92, respectively. The lowest mean of 3.85 was recorded for considering competitors' products when planning improvements or innovations. Although this still falls under

Agree, it suggests that competitor analysis may be a less developed practice among the students. Understanding competitors' products is important for staying ahead in the market, and with more practice, students could them with the insight needed to make more informed decisions. Students' product development skills in terms of adaptation to market trends and customer needs attained an overall weighted mean of 4.01 with a standard deviation of 1.02, verbally interpreted as Highly Developed. This means that students have a strong ability to adjust their product ideas and designs in response to customer expectations and market changes. Their skills in adapting to market trends reflect a deep understanding of the need to stay competitive and relevant in dynamic markets. Additionally, their responsiveness to customer needs demonstrates an entrepreneurial mindset focused on meeting demands effectively, which is key to long-term product success. This ability to anticipate and react quickly also indicates their preparedness for real-world challenges. In a fast-changing market, such skills are essential for ensuring that products meet consumer demands while maintaining relevance in the market.

In summary, the findings indicate that students are generally market-aware and responsive, which helps them create products that are more relevant and competitive. These competencies reflect the importance of being agile and customer-centric, qualities that are critical in today's fast-paced business environment.

Table 8. Level of Students' Product Development Skills in Terms of Efficient Use of Resources in Product Creation

Statements	Mean	SD	Remarks
The students can...			
...plan and use materials effectively to minimize waste during product creation.	4.17	1.00	Agree
...manage time efficiently to complete product development tasks on schedule.	4.11	1.01	Agree
...allocate manpower and tools wisely to achieve optimal results.	3.95	0.95	Agree
...seek cost-effective methods without compromising product quality.	3.85	1.03	Agree
...monitor resource usage continuously to ensure sustainable production practices.	4.01	1.04	Agree
Weighted Mean	4.02		
SD	1.01		
Verbal Interpretation	Highly Develop		

Table 8 presents the level of students' product development skills in terms of efficient use of resources in product creation.

Planning and using materials effectively to minimize waste during product creation obtained the highest mean score of 4.17. This suggests that students are generally mindful of how resources are used during product development. Managing time efficiently to complete product development tasks on schedule followed with a mean of 4.11, indicating that students also demonstrate good time management. Monitoring resource usage continuously to ensure sustainable production practices received a mean of 4.01, while allocating manpower and tools wisely to achieve optimal results got a mean of 3.95. The lowest mean of 3.85 was recorded for seeking cost-effective methods without compromising product quality,

which may suggest that cost-efficiency is an area where students can still improve.

Students' product development skills in terms of efficient use of resources verbally interpreted as Highly Developed. This indicates that students are highly developed in using materials, time, and available tools efficiently during product creation.

In summary, the results show that students are generally effective in managing resources, which is important for sustainable and quality product development.

Level of Students' Financial Management Skills

In this study, the level of students' financial management skills was described in terms of budgeting and expense tracking, cash flow management, and costing and pricing strategies. These skills were measured and analyzed using the mean and standard deviation to determine students' ability to manage financial resources effectively in relation to product development and entrepreneurial activities. These indicators were included because they show how students manage financial responsibilities in entrepreneurial activities. They also give a clearer picture of the areas where students perform well and the aspects that may still need improvement.

The following tables present the students' competencies in preparing and monitoring budgets, managing cash flows to ensure financial sustainability, and applying appropriate costing and pricing strategies to maximize profitability while maintaining resource efficiency.

Table 9. Level of Students' Financial Management Skills in Terms of Budgeting and Expense Tracking

Statements	Mean	SD	Remarks
The students can...			
...create detailed budgets for all aspects of entrepreneurial activities.	4.22	0.92	Strongly Agree
...track expenses regularly to avoid overspending.	4.08	1.02	Agree
...prioritize spending to ensure essential costs are covered first.	3.95	0.99	Agree
...adjust budgets when unexpected costs arise to maintain financial stability.	4.04	0.95	Agree
...analyze past spending patterns to improve future budget planning.	4.00	1.00	Agree
Weighted Mean	4.06		
SD	0.98		
Verbal Interpretation			Highly Develop

Table 9 presents the level of students' financial management skills in terms of budgeting and expense tracking.

The highest mean score of 4.22 was obtained by creating detailed budgets for all aspects of entrepreneurial activities, and this was verbally interpreted as Strongly Agree. This indicates that students are capable of planning their financial needs carefully before carrying out entrepreneurial tasks. Tracking expenses regularly to avoid overspending and adjusting budgets when unexpected costs arise followed with means of 4.08 and 4.04, respectively, showing that students are not only able to plan but also able to monitor and revise their budgets when necessary. Analyzing past spending patterns to improve future budget planning received a mean of 4.00, while prioritizing spending to ensure essential costs are

covered first got the lowest mean of 3.95. Although still interpreted as Agree, this suggests that prioritizing expenses may still need further strengthening.

Students' financial management skills in terms of budgeting and expense highly developed in planning and monitoring their financial resources.

Table 10. Level of Students' Financial Management Skills in Terms of Cash Flow Management

Statements	Mean	SD	Remarks
The students can...			
...monitor the inflow and outflow of funds to maintain sufficient liquidity.	4.16	0.96	Agree
...plan cash flow to ensure operational expenses are consistently met.	3.96	1.02	Agree
...anticipate periods of low revenue and prepare strategies to manage them.	3.91	0.94	Agree
...allocate available funds wisely to support both short-term and long-term goals.	3.99	1.01	Agree
...evaluate cash flow regularly to identify potential financial issues early.	3.98	1.00	Agree
Weighted Mean	4.00		
SD	0.99		
Verbal Interpretation			Highly Develop

Table 10 presents the level of students' financial management skills in terms of cash flow management.

Monitoring the inflow and outflow of funds to maintain sufficient liquidity received the highest mean score of 4.16. This suggests that students are aware of the importance of keeping track of available funds to avoid shortages. Allocating available funds wisely to support both short-term and long-term goals obtained a mean of 3.99, while evaluating cash flow regularly to identify potential financial issues early and planning cash flow to ensure operational expenses are consistently met received means of 3.98 and 3.96, respectively. Anticipating periods of low revenue and preparing strategies to manage them had the lowest mean of 3.91. Although still interpreted as Agree, this may indicate that students are slightly less confident in planning for possible financial downturns. This suggests that additional focus on forecasting and preparing for market volatility could further enhance their financial resilience.

Students' financial management skills in terms of cash flow management attained an overall weighted mean of 4.00 with a standard deviation of 1.01, indicating that they are highly developed in handling cash flow in a way that supports financial stability. Interestingly, the results suggest that while students excel at monitoring and maintaining liquidity, they may benefit from further exposure to scenarios that involve handling unpredictable financial setbacks. Gaining experience in managing cash flow during lean periods can better equip them to handle future challenges. Additionally, integrating case studies of businesses that successfully navigated cash flow crises could offer students valuable learning opportunities. Real-world examples could give them the insight needed to adapt their strategies when financial difficulties arise.

In summary, the findings show that students possess a strong level of cash flow management, which is important in

sustaining operations, avoiding financial problems, and supporting long-term entrepreneurial goals.

Table 11. Level of Students' Financial Management Skills in Terms of Costing and Pricing Strategies

Statements	Mean	SD	Remarks
The students can...			
...calculate production costs accurately to determine appropriate pricing.	4.18	1.00	Agree
...set prices that balance customer affordability and business profitability.	4.17	0.95	Agree
...consider market demand and competitors' pricing when deciding product prices.	3.97	1.04	Agree
...adjust costs and prices based on changes in materials, labor, or overhead.	4.07	0.98	Agree
...analyze profit margins to ensure the business remains financially sustainable.	4.16	0.98	Agree
Weighted Mean	4.11		
SD	0.99		
Verbal Interpretation	Highly Develop		

Table 11 presents the level of students' financial management skills in terms of costing and pricing strategies. Calculating production costs accurately to determine appropriate pricing obtained the highest mean score of 4.18. This indicates that students are capable of identifying how much a product costs before deciding on a selling price. Setting prices that balance customer affordability and business profitability followed closely with a mean of 4.17, while analyzing profit margins to ensure the business remains financially sustainable received 4.16. These findings suggest that students are able to think strategically about both customer needs and business sustainability. Adjusting costs and prices based on changes in materials, labor, or overhead got a mean of 4.07. The lowest mean of 3.97 was recorded for considering market demand and competitors' pricing when deciding product prices. Although still interpreted as Agree, this may mean that

Students' financial management skills in terms of costing and pricing strategies attained an overall weighted mean of 4.11 with a standard deviation of 0.99, verbally interpreted as Highly Developed. This indicates that students are highly developed in determining costs, setting prices, and maintaining financial sustainability through sound pricing decisions. Their ability to manage costs and pricing effectively reflects a strong understanding of the delicate balance between offering value to customers and maintaining profitability for the business. This skill is essential for entrepreneurial success, as it ensures that businesses remain competitive while also being financially viable.

In summary, the findings reveal that students possess strong costing and pricing skills that can help support profitability, competitiveness, and long-term business viability. The ability to calculate costs accurately, set appropriate prices, and maintain profitability is a core component of financial management and business strategy.

Significant Relationship Between the Students' Entrepreneurial Competencies and Product Development Skills of Students

In this study, the significant relationship between the students' entrepreneurial competencies and product development skills of students was analyzed using the Pearson Correlation Coefficient, applying Minitab 14. This analysis helped to determine the strength and direction of the relationship between the various entrepreneurial competencies and the students' ability to effectively develop products.

Table 12. Significant Relationship Between the Students' Entrepreneurial Competencies and Product Development Skills

Students' Entrepreneurial Competencies		Students' Product Development Skills			
		Idea Generation and Prototyping	Innovation and Creativity in Product Design	Adaptation to Market Trends and Customer Needs	Efficient Use of Resources in Product Creation
Risk Taking	Pearson Correlation	.480*	.450*	.411*	.396*
	Sig. (2-tailed)	.000	.000	.000	.000
	N	300	300	300	300
Decision Making	Pearson Correlation	.439*	.563*	.446*	.471*
	Sig. (2-tailed)	.000	.000	.000	.000
	N	300	300	300	300
Creativity and Innovation	Pearson Correlation	.646*	.653*	.513*	.402*
	Sig. (2-tailed)	.000	.000	.000	.000
	N	300	300	300	300
Adaptability and Resilience	Pearson Correlation	.463*	.415*	.450*	.417*
	Sig. (2-tailed)	.000	.000	.000	.000
	N	300	300	300	300

Note * p < .05

Table 12 presents the correlation between entrepreneurial competencies and product development skills of students. The results include Pearson correlation coefficients (r-values), p-values, and sample size (N=300) for each relationship. These statistical measures help clarify the strength and significance of the relationships between the competencies and skills. Understanding these correlations provides a deeper insight into how entrepreneurial traits translate into practical abilities in product development.

A moderate significant correlation between risk-taking and all aspects of product development skills such as idea generation and prototyping, innovation and creativity in product design, adaptation to market trends and customer needs, and efficient use of resources in product creation was revealed. This implies that students who are more willing to take calculated risks tend to demonstrate stronger product development skills. By embracing risks, students are more likely to explore innovative solutions and push the boundaries of traditional thinking, which can lead to more effective product development.

Decision Making similarly exhibits a significant positive relationship with idea generation and prototyping, innovation and creativity in product design, adaptation to market trends,

and efficient resource utilization, with innovation and creativity in product design having the strongest relationship under this competency. This denotes that sound decision-making skills greatly enhance students' ability to design innovative products. Good decision-making also empowers students to prioritize and execute their ideas effectively, turning their creative concepts into tangible products that resonate with the market.

Furthermore, creativity and innovation exhibit the strongest significant positive relationships overall among all competencies. The highest correlation observed in the table is between creativity and innovation and innovation in product design, indicating that students' creative ability greatly influences their product development performance. This shows that students with high levels of creativity are better able to come up with novel product ideas that are not only practical but also marketable. In addition, adaptability and resilience also show significant moderate positive relationships with all aspects of product development skills. This implies that students who are adaptable and resilient are more capable of responding to market demands and are able to manage resources effectively during product creation. These qualities allow students to pivot when faced with setbacks, ensuring that they can continue working towards their goals despite obstacles.

Table 13. Significant Relationship Between Students' Entrepreneurial Competencies and Financial Management Skills

Students' Entrepreneurial Competencies		Students' Financial Management Skills		
		Budgeting And Expense Tracking	Cash Flow Management	Costing And Pricing Strategies
Risk Taking	Pearson Correlation	.378*	.383*	.349*
	Sig. (2-tailed)	.000	.000	.000
	N	300	300	300
Decision Making	Pearson Correlation	.488*	.401*	.442*
	Sig. (2-tailed)	.000	.000	.000
	N	300	300	300
Creativity and Innovation	Pearson Correlation	.306*	.439*	.518*
	Sig. (2-tailed)	.000	.000	.000
	N	300	300	300
Adaptability and Resilience	Pearson Correlation	.384*	.349*	.377*
	Sig. (2-tailed)	.000	.000	.000
	N	300	300	300

Note * p < .05

Overall, the results signify that all dimensions of entrepreneurial competencies have significant positive relationships with students' product development skills. The results infer that enhancing entrepreneurial competencies, particularly creativity and innovation, can meaningfully improve students' ability to generate ideas, design innovative

products, respond to market trends, and efficiently utilize resources. These findings emphasize the importance of nurturing these competencies in educational programs to better prepare students for the challenges of entrepreneurship, and efficiently utilize resources.

Table 13 shows the correlation between the entrepreneurial competencies and financial management skills of students, including the Pearson correlation coefficients (r-values), p-values, and sample size (N=300) for each relationship. The results reveal a moderate but significant correlation between risk-taking and various aspects of financial management skills like budgeting, cash flow management, and pricing strategies. This means that students who are more willing to take calculated risks tend to show better skills in managing their finances.

Similarly, decision-making has a positive relationship with all aspects of financial management, particularly budgeting, cash flow management, and costing. Budgeting stood out with the strongest correlation under this competency, indicating that good decision-making helps students handle their finances more effectively.

Creativity and innovation also showed the strongest positive relationships across all the competencies, especially with costing and pricing strategies. This suggests that students who are more creative and innovative tend to perform better when it comes to making sound financial decisions.

Additionally, adaptability and resilience have a positive impact on financial management skills, including budgeting and cash flow management. This shows that students who can adapt and stay resilient are more capable of managing their finances well, even in uncertain situations.

In conclusion, the findings suggest that all dimensions of entrepreneurial competencies play a key role in strengthening students' financial management skills. Enhancing these competencies, especially creativity and innovation, can greatly improve students' abilities to manage budgets, handle cash flow, and make informed pricing decisions.

IV. CONCLUSION AND RECOMMENDATIONS

There is a significant positive relationship between students' entrepreneurial competencies and their product development skills. This indicates that students who show stronger abilities in risk-taking, decision-making, creativity and innovation, and adaptability and resilience also tend to perform better in idea generation, product design, adaptation to market trends, and efficient use of resources. The result shows that students' entrepreneurial competencies are not just personal traits, but practical strengths that help students create and improve products more effectively. Based on the statistical analysis, the null hypothesis was rejected, confirming that the relationship between these variables is significant.

There is a significant positive relationship between students' entrepreneurial competencies and their financial management skills. The findings suggest that students who exhibit stronger entrepreneurial competencies are more capable of preparing budgets, monitoring cash flow, and applying costing and pricing strategies effectively. This

indicates that these competencies help students become more responsible, organized, and strategic in managing financial matters in entrepreneurial activities. Based on the statistical analysis, the null hypothesis was rejected, confirming that the relationship between entrepreneurial competencies and financial management skills is significant.

Based on the findings and conclusions drawn from this study, the following recommendations:

Students may be given more opportunities to turn their ideas into actual prototypes through simple hands-on activities, mock product making, and guided output-based tasks. Since this area got the lowest result, regular practice in building and testing sample products may help students become more confident in translating ideas into something concrete.

Teachers and mentors may also help students strengthen their confidence in making decisions even when the outcome is still uncertain. Classroom activities such as business simulations, problem-based tasks, and small group decision exercises can help students become more comfortable in making choices and standing by them.

More support may be provided in helping students recover from setbacks and stay motivated after mistakes or failed attempts. Encouraging reflection, constructive feedback, and a learning environment where errors are treated as part of improvement can help.

Students may likewise be guided to take calculated risks in a more thoughtful way by exposing them to real-life

entrepreneurial situations where they need to weigh possible gains and losses. This can help them become more open to opportunities without acting impulsively.

It is also recommended that entrepreneurship activities include exercises that develop long-term thinking, stress management, and practical financial decisions. In this way, students can improve not only their present performance in product development and financial management, but also their readiness for future entrepreneurial challenges.

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