Proceedings of the International Conference on Education, Economics, Business, Entrepreneurship, and Finance (ICEBEF)
Volume 4 (2026)

FROM INCUBATION TO GROWTH: WIRAHEBAT'S ROLE IN FOOD STARTUP DEVELOPMENT

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ABSTRACT
This research seeks to examine how the effect of the Wira Hebat Business Incubation Program on the development of food startups with capital access as a mediating variable. The research employed a quantitative approach with an explanatory research design and used a saturated sampling technique involving 60 respondents who were food startup participants of the Wira Hebat Program in Garut Regency. Data was examined through Structural Equation Modeling Structural Equation Modeling based on Partial Least Squares (SEM-PLS) with SmartPLS 3.0. Findings indicate that business incubation positively and notably effect on capital access, and capital access influences significantly the development of food startups. Furthermore, capital access significantly mediates the relationship between business incubation and food startup development. These findings indicate that the success of business incubation is not only measured by the improvement of entrepreneurial capacity but also by its ability to bridge access to funding for entrepreneurs. Practically, this study highlights the importance of business incubation in strengthening the entrepreneurial ecosystem, particularly in the food and beverage sector. An effective incubation program should not only provide managerial training and mentoring but also ensure access to funding and sustainable business networks.

Keywords: business incubation; capital access; food startup; Wira Hebat Program.

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are one of the main drivers of Indonesia's economy due to their significant contribution to Gross Domestic Product (GDP) and employment absorption. By 2025, Indonesia had approximately 66 million MSME units contributing around 61–62% of national GDP and absorbing nearly 97% of the workforce (Antaranews, 2023). This highlights the strategic role of MSMEs in supporting economic growth, reducing unemployment, and improving public welfare. One of the fastest-growing sectors within MSMEs is the food and beverage industry, driven by increasing consumer demand and its contribution to economic development and local employment (Nashiruddin Al-Bakry, 2024). However, intense competition requires entrepreneurs to continuously innovate, maintain product quality, and utilize social media effectively to expand market reach (Sukmadiana & Faeni, 2025).

To strengthen MSME competitiveness, the government has implemented business incubation programs that provide mentoring, training, networking, and financing support for startups (Shaliza & Hasanah, 2024). Business incubation serves as a strategic platform to improve managerial capabilities, technological mastery, and market access for entrepreneurs (Septiana, 2022). One example is the Wira Hebat Program in Garut Regency, which was established to support the increasing number of food and beverage startups after the COVID-19 pandemic. In addition to training and workshops, the program also facilitates access to capital for business development (Wirahebat.id, 2025). Nevertheless, many startups still face challenges related to limited funding and weak managerial capacity (Rusliana et al., 2023).

Although previous studies have discussed the importance of business incubation, research examining the influence of incubation programs on food startup development through access to capital as a mediating variable remains limited. Access to capital is a critical factor that supports operational sustainability, innovation, and business expansion (Sohail, Belitski, & Castro Christiansen, 2023). Therefore, This research seeks to examine how the effect of the Wira Hebat Incubation Program on food startup development with access to capital as a mediating variable. The findings are expected to enrich the literature on business incubation effectiveness and provide practical recommendations for governments and incubator institutions in designing more effective mentoring and financing strategies for startups.

Business incubation is a structured process that supports startup growth through mentoring, funding, networking, and access to resources. Previous studies show that incubators improve entrepreneurial capacity, innovation, and startup sustainability by bridging gaps in experience and resources (Pattanasak et al., 2022; Dhiman & Arora, 2024). Meanwhile, access to capital plays a crucial role in MSME growth because adequate funding supports operational continuity, expansion, and competitiveness (Sudirjo et al., 2023). In the context of food startups, innovation and technology utilization are essential to address challenges related to sustainability, food security, and market competition (Ludwig et al., 2022). Therefore, the integration of business incubation and capital access is expected to strengthen the growth and sustainability of food startups in Indonesia.

METHOD

Study used a quantitative approach with an explanatory research method (Widodo, Festy, and Ode 2023). This approach was chosen to test the causal relationship between the Wira Hebat business incubation program variables and the development of culinary startups, with access to capital as a mediating variable. Information was gathered via surveys sent to participants who had participated in the Wira Hebat incubation program (Machali 2021). The Population in this research consisted of all food startup entrepreneurs who had participated in the program. Because the population was relatively limited and homogeneous, the method of sampling applied was saturated sampling, where all members of the population were sampled. This technique was appropriate because the number of incubation participants was clearly identified with the criteria that respondents were active food startup entrepreneurs, had participated in the Wira Hebat program for at least one period, and were aware of the development conditions of their businesses before and after the program. The data sources used were primary data obtained from distributed questionnaires, secondary data obtained from program activities, official publications, journal articles, and other sources related to this incubation. The questionnaire instrument uses a Likert scale of 1-5 extending is "Strongly Disagree" (1) until "Strongly Agree" (5). The analysis data technique uses a Structural Model (SEM-PLS) with Outer Model testing which includes convergent validity, discriminant validity, and construct reliability testing and Inner Model testing which includes R-square testing, path coefficient testing, and mediation testing (indirect effect) (Ruky et al 2021) .

RESULTS AND DISCUSSION

Outer Model Testing

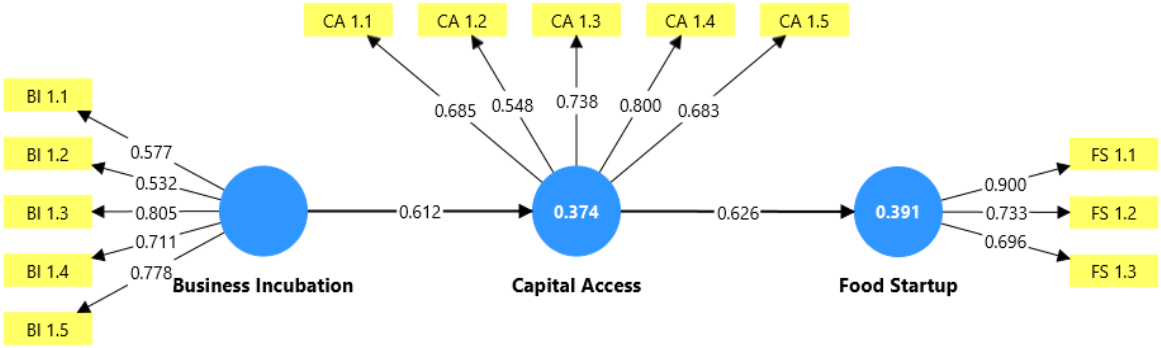

Figure 1. Research Model

1. Validity Test

a. Convergent Validity

Data analysis used SmartPLS 3.0 to test validity and reliability. Validity testing was based on convergent validity, evaluated based on the outer loading value of each indicator on its variable. An indicator is considered valid if its loading factor is above 0.7 (Hair et al. 2021) .

Table 1. Validity Test results

Indicator	Business Incubation	Capital Access	Food Startup
BI 1	*0.577*		
BI 2	*0.532*		
BI 3	0.805		
BI 4	0.711		
BI 5	0.778		
CA 1		*0.685*	
CA 2		*0.548*	
CA 3		0.738	
CA 4		0.800	
CA 5		0.683	
FS 1			0.900
FS 2			0.733
FS 3			*0.696*

Source: Smart-PLS

Table 1 showed that several indicators have factor loading values below 0.7, namely BI 1, BI 2, CA 1, CA 2, and FS3. This indicates that these indicators are less relevant for measuring the variables. Therefore, these indicators need to be eliminated for further testing.

b. Discriminant Validity

Discriminant validity testing was conducted using cross-loading values to ensure each construct was distinct from the others. An indicator is considered valid if its loading value is higher on the construct it measures compared to other constructs. The analysis results showed that all indicators met these criteria, thus the model was declared to have good discriminant validity. The following are the cross-loading values:

Table 2. Cross Loading Values

Indicator	Business Incubation	Capital Access	Food Startup
BI 3	0.805	0.493	0383
BI 4	0.813	0.515	0.457
BI 5	0.861	0.470	0.375
CA 3	0.409	0.759	0.475
CA 4	0.398	0.822	0.585
CA 5	0.599	0.770	0.343
FS 1	0.435	0.613	0.928
FS 2	0.440	0.408	0.829

Source: Smart-PLS

Based on table 2 above, the crossloading results for each indicator have the highest loading value on its own construct, so the model has met the discriminant validity criteria.

2. Reliability Test

Reliability testing aims to ensure that the indicators for each variable are able to produce consistent and reliable data in measuring the construct being studied. An indicator is considered reliable if its Composite Reliability (CR) and Cronbach's Alpha values are greater than 0.70, indicating a good level of internal consistency. Furthermore, construct reliability is also strengthened by an Average Variance Extracted (AVE) value above 0.50, indicating the indicator able for adequately describe a proportion of the construct's variance.

Table 3. Reliability Test

Variables	Cronbach's Alpha	Rho_A	Composite Reliability	Average Variance Extracted
Business Incubation	0.769	0.768	0.866	0.684
Capital Access	0.687	0.689	0.827	0.615
Food Startup	0.717	0.800	0.872	0.773

Source: Smart-PLS

The analysis results show that all constructs Business Incubation, Capital Access, and Food Startup met the criteria for reliability and convergent validity. Therefore, all indicators were deemed consistent and suitable for use in further model analysis.

a. Inner Model Testing

Inner model testing is used to assess the relationships between latent variables in a structural model. Evaluation is performed using the R-square value, path coefficient, and T-statistic to determine the strength and significance of the relationships. According to Hair et al. (2021), a model is considered good if the relationships between variables are significant and have adequate predictive power.

b. R-Square

The R-Square (R^2) value indicates how independent variables can explain the dependent variable. The higher the value, the better the model's ability to explain the variance (Hair et al. 2021).

Table 3. Correlation Values

	R-square	R-square adjusted
Capital Access	0.357	0.346
Food Startup	0.358	0.347

Source: Smart-PLS

Based on table 3, shows that the independent variables explain approximately 35% of the variance in Capital Access and Food Startups, while the remainder is influenced by factors outside the model. This R-square value is in the moderate category, indicating that the relationship between the variables has fairly good explanatory power (Hair et al., 2021).

c. Hypothesis Testing

Hypothesis testing using SmartPLS was conducted to determine whether the relationships between variables in the structural model were significant. This testing was performed using the path coefficient and the T-statistic or P-value obtained from the bootstrapping process. The hypothesis would be approved if the T-statistic value was > 1.96 or the P-value was < 0.05, indicating signifying a notable impact among the variables in the model (Hair et al. 2021).

Table 4. Path Coefficient

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T statistics (|O/STDEV|)	P Values
BI -> CA	0.597	0.614	0.100	5,973	0.000
CA -> FS	0.598	0.609	0.098	6.101	0.000
BI -> CA -> FS	0.357	0.375	0.091	3,910	0.000

Source: Smart-PLS

H1: The Impact of Business Incubation on Capital Access

The test results showed a t-statistic of 5.973 > 1.96 and a p-value of 0.000 < 0.05, indicating that Business Incubation has a positive and significant impact on Capital Access. This signifies that the better the business incubation program, the greater the startup's chances of gaining access to capital. Incubation programs assist entrepreneurs in financial planning and expanding their network with investors. These results align with the findings of (Amelia et al. 2021) which state that business incubation plays a crucial role in increasing startup readiness to obtain capital support from financial institutions and investors. This conclusion suggests that business incubation influences capital access for food startups. Incubation serves as a bridge for food entrepreneurs to access business management training facilities and opportunities for capital.

H2: The Impact of Capital Access on Food Startups

The t-statistic value of 6.101 > 1.96 with a p-value of 0.000 < 0.05 indicates that Capital Access has a positive and significant effect on Food Startups. This signifies that the easier access to capital, the higher the ability of culinary startups to develop their business, expand their market, and innovate. This finding supports research (Cuandra et al. 2025) which explains that capital availability significantly influences the performance and competitiveness of culinary startups in Indonesia. The conclusion of this study is that capital access has an influence on food startups, where this capital assistance can provide a stimulus for entrepreneurs to develop and expand their business scale.

H3: The Influence of Business Incubation on Food Startups through Capital Access

The t-statistic value of 3.910 > 1.96 and p-value of 0.000 < 0.05 indicate that Capital Access significantly mediates the effect of Business Incubation on Food Startups. This means that incubation programs can indirectly improve startup development by increasing access to capital. This is in line with research (Ahmad and Naveed 2024) which found that the role of incubation institutions in connecting startups with funding sources has a positive impact on business growth in the culinary sector. This conclusion suggests that the success of business incubation is measured not only by increasing the capacity of entrepreneurs but also by the program's ability to bridge startups with relevant capital sources. Thus, the synergy between coaching and funding is a key factor in the sustainability and scalability *of food startups.*

CONCLUSION

This study concludes that business incubation has a direct influence on capital access and an indirect influence on food startups through capital access. These findings indicate that business incubation programs serve as a strategic bridge for entrepreneurs in developing and expanding their businesses through various facilities, such as managerial mentoring, entrepreneurship training, and easy access to capital.

Practically, the results of this study emphasize the importance of supporting entrepreneurs, particularly in the food and beverage sector, through comprehensive business incubation programs. These programs not only provide training and access to funding but also strengthen collaborative networks to support business sustainability and scalability. For the further, it is suggested to incorporate additional variables, such as product innovation or government support, to offer a broader insight into the elements, influencing the success of food startups in the culinary sector, beyond just business incubation and access to capital.

ACKNOWLEDGMENTS

This paper was written by Isnawati as the first author, together with Nizar Alam Hamdani, Sukma Nugraha, and Galih Abdul Fatah Maulani from the Faculty of Entrepreneurship, Universitas Garut. The authors would like to express their sincere gratitude to the Faculty of Entrepreneurship, Universitas Garut, for the continuous support and facilities provided during the completion of this research. The authors also wish to extend their appreciation to mentors and colleagues for their valuable guidance, constructive feedback, and encouragement throughout the research and writing process. Additionally, the authors express their gratitude to all respondents who willingly participated and contributed valuable information to this study. Finally, the authors convey their deepest appreciation to everyone who has directly or indirectly provided support, motivation, and inspiration during the preparation of this article.

REFERENCE

Aeni, Reni Q., Awang D. Kardeli, and Meirani Rahayu. 2023. "Collaborative Economy-Based Business Incubator Model to Increase the Intention of Islamic Entrepreneurship." *Journal of Islamic Economics and Business* 3(2):137–59. doi: 10.15575/jieb.v3i2.31214.

Ahmad, Shakeel, and Naveed. 2024. "Factors Influencing Entrepreneurial Intention: The Mediating Role of Access to Finance and Incubation Center Shakeel." *Journal of Asian Development Studies* 13(1):699–715.

Amelia, Tifa Noer, Armanu Thoyib, Gugus Irianto, and Ainur Rofiq. 2021. "Tech Start-up Incubation Program: Business Model Evaluation on Government Based Incubator in Indonesia." *Research Gate* 10(1):284–91. doi: 10.18421/TEM101-35.

Anon. n.d. "Kementrian Keuangan RI." Retrieved (https://djpb.kemenkeu.go.id/kppn/lubuksikaping/id/data-publikasi/artikel/3134-kontribusi-umkm-dalam-perekonomian-indonesia.html).

Antaranews. 2023. "Peningkatan Jumlah UMKM Dalam Ekosistem Digital."

Bosona, Techane, and Girma Gebresenbet. 2023. "The Role of Blockchain Technology in Promoting Traceability Systems in Agri-Food Production and Supply Chains." *Sensors* 23(11):5342. doi: 10.3390/s23115342.

Cuandra, Fendy, Yolanda Masnita, Husna Leila Yusran, and Lily Purwianti. 2025. "Technological Development and Competitive Advantage: Driving Sustainable Performance in Culinary Startups." *IRJEMS International Research Journal of Economics and Management Studies* 4(4):260–71. doi: 10.56472/25835238/IRJEMS-V4I4P126 Original.

Dhiman, Vaishali, and Manpreet Arora. 2024. "Exploring the Linkage Between Business Incubation and Entrepreneurship: Understanding Trends, Themes and Future Research Agenda." *LBS Journal of Management & Research* 22(1):66–92. doi: 10.1108/lbsjmr-06-2023-0021.

Hair, J. F., G. T. M. Hult, C. M. Ringle, M. Sarstedt, N. P. Danks, and S. Ray. 2021. *Evaluation of the Structural Model. In: Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R. Classroom Companion: Business. Springer, Cham.* Vol. 30.

Judijanto, Loso, and Sri Dewi Lisnawaty. 2024. "Effect of Access to Capital, Entrepreneurship Education, and HR Competencies on Start-up Success in the Technology Sector." *West Science Journal Economic and Entrepreneurship* 2(03):308–20. doi: 10.58812/wsjee.v2i03.1194.

Liwaul, Liwaul. 2023. "Pertumbuhan Ekonomi Kerakyatan Melalui Kewirausahaan Lokal Untuk Meningkatkan Kesejahteraan Masyarakat." *Jurnal Kesejahteraan Dan Pelayanan Sosial* 4(2):104–23. doi: 10.52423/jkps.v4i2.15.

Ludwig, Kathrin, Adriano Profeta, Alexander Märdian, Clemens Hollah, Maud H. Schmiedeknecht, and Volker Heinz. 2022. "Transforming the German Food System: How to Make Start-Ups Great!" *Sustainability* 14(4):2363. doi: 10.3390/su14042363.

Machali, Imam. 2021. *Metode Penelitian Kuantitatif*.

Mardaleta, Mardaleta, Syahril Syahril, Helmi Noviar, Saiful Badli, and Aglis A. Hatmawan. 2024. "Strategi Pengembangan Usaha: Solusi Pemodalan Bagi Pelaku Industri." *Jurnal Pembelajaran Pemberdayaan Masyarakat (Jp2m)* 5(1):67–75. doi: 10.33474/jp2m.v5i1.21503.

Nashiruddin Al-Bakry, M. Hafidh. 2024. "Challenges and Opportunities for SMEs in Developing Modern Culinary." *Journal of Indonesian Impressions (JII)* 3(1):59–67. doi: 10.58344/jii.v3i1.4495.

Pattanasak, Photchanaphisut, Tanyanuparb Anantana, Boontarika Paphawasit, and Ratapol Wudhikarn. 2022. "Critical Factors and Performance Measurement of Business Incubators: A Systematic Literature Review." *Sustainability* 14(8):4610. doi: 10.3390/su14084610.

Ranjbari, Meisam, Michal Kuděj, Jan Kubálek, and Alberto Ferraris. 2025. "A Typology of Circular Economy Startups in Agri-Food Supply Chains: An Analysis of 79 Innovative Startups." *Business Strategy and the Environment*. doi: 10.1002/bse.70062.

Rukmana, Arief Y., Ridma Meltareza, Budi Harto, Oom Komalasari, and Nining Harnani. 2023. "Optimizing the Role of Business Incubators in Higher Education: A Review of Supporting Factors and Barriers." *West Science Business and Management* 1(03):169–75. doi: 10.58812/wsbm.v1i03.96.

Ruky et al. 2021. *Metodologi Penelitian: Metodologi Penelitian Skripsi*. Vol. 52.

Rusliana, Nanang, Armida Alisjahbana, Budiono Budiono, and Raden M. Purnagunawan. 2023. "Performance of Small and Medium Enterprises in Indonesia Impacted by Financial Accessibility." *Jurnal Ekonomi Pembangunan Kajian Masalah Ekonomi Dan Pembangunan* 24(2):293–307. doi: 10.23917/jep.v24i2.21703.

Septiana, Ayu. 2022. "Tinjauan Model Inkubator Bisnis Rintisan (Bisnis Start Up) Di Indonesia." *Jurnal Manajemen Dan Bisnis (PERFORMA)* 12(1):116–36.

Shaliza, Fara, and Nurul Hasanah. 2024. "Peran Inkubator Bisnis Untuk Menghasilkan Keuntungan (Profit) Bagi Kelompok Pemuda." *PESAT: Jurnal Pengabdian Masyarakat* 3(1):146–51.

Sohail, Kanza, Maksim Belitski, and Liza Castro Christiansen. 2023. "Developing Business Incubation Process Frameworks: A Systematic Literature Review." *Journal of Business Research* 162(December 2022):113902. doi: 10.1016/j.jbusres.2023.113902.

Sudirjo, Frans, Robbani, Mulyadi AR, Indarsyah F. Tungkagi, and Magfira Mamonto. 2023. "Pengaruh Rasio Keuangan, Ketersediaan Modal, Dan Kebijakan Pemasaran Terhadap Pertumbuhan Usaha Kecil." *Sanskara Ekonomi Dan Kewirausahaan* 1(03):162–72. doi: 10.58812/sek.v1i03.122.

Sukmadiana, Muhammad Yusup, and Dewi Puspsningtyas Faeni. 2025. "Peran Perusahaan Sub-Sektor Makanan Dan Minuman Dalam Mendorong Pertumbuhan Ekonomi di Indonesia." *Jurnal Riset Ilmiah* 2(9):15–18.

Widodo, Slamet, Ladyani Festy, and Asrianto La Ode. 2023. *Buku Ajar Metodologi Penelitian*.

Wirahebat.id. 2025. "Wira Hebat 2025." *Instagram*. Retrieved October 6, 2025 (https://www.instagram.com/wirahebat.id/).