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## **THE INFLUENCE OF FINANCIAL LITERACY, DIGITAL LITERACY, AND BUSINESS KNOWLEDGE ON UMKM DEVELOPMENT MEDIATED BY INNOVATION**

**Ruth Abigail Tarigan<sup>1</sup>**

<sup>1</sup>Faculty of Economics, Economic Education,  
Universitas Negeri Jakarta, Indonesia  
E-mail: ruthabigailtarigan@gmail.com

**Suparno<sup>2</sup>**

<sup>2</sup>Faculty of Economics, Economic Education,  
Universitas Negeri Jakarta, Indonesia  
E-mail: suparno@unj.ac.id

**Agus Wibowo<sup>3</sup>**

<sup>3</sup>Faculty of Economics, Economic Education,  
Universitas Negeri Jakarta, Indonesia  
E-mail: agus-wibowo@unj.ac.id

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### **Article History:**

Received:

15 September 2025

Revised:

14 October 2025

Accepted:

18 October 2025

**Keywords:** *Financial Literacy, Digital Literacy, Business Knowledge, Micro, Small, and Medium Enterprises (MSMEs), Innovation*

**Abstract:** *This study aims to analyze the effect of financial literacy, digital literacy, and business knowledge on the development of Micro, Small, and Medium Enterprises (MSMEs), with innovation as a mediating variable. Data were collected from MSME respondents in Central Jakarta using a structured survey. The analysis method used is Structural Equation Modeling (SEM) with the Partial Least Square (PLS) approach. The results showed that financial literacy, digital literacy, and business knowledge have a significant influence on innovation and development of MSMEs. Directly, financial literacy affects innovation with a t-count value of 14.715 (p-value 0.000) and MSME development with a t-count value of 7.568 (p-value 0.000). Digital literacy shows a significant influence on innovation (t-count 15.082; p-value 0.000) and MSME development (t-count 8.654; p-value 0.000). Business knowledge also affects innovation (t-count 12.918; p-value 0.000) and MSME development (t-count 7.477; p-value 0.000). Testing the indirect effect through innovation shows significant results. Financial literacy influences MSME development through innovation with a t-count of 2.205 (p-value 0.022). Digital literacy shows a*

*significant indirect influence on MSME development through innovation (t-count 2.197; p-value 0.023). Business knowledge is also shown to influence MSME development indirectly through innovation (t-count 2.195; p-value 0.023). Innovation is proven to be a mediator that strengthens the relationship between the three independent variables and MSME development. This research provides practical contributions in the form of recommendations for improving financial literacy, digital technology adoption, and better business understanding to support MSME innovation and growth. In addition, innovation is a strategic key in creating competitiveness and business sustainability in the midst of modern economic challenges.*

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## INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play a fundamental role in the Indonesian economy. Based on data from the ASEAN Investment Report 2022, Indonesia has 65.46 million MSME units, the largest number in the ASEAN region. The contribution of MSMEs to Gross Domestic Product (GDP) reaches 60.5% or around IDR 8,573 trillion per year, with employment of 97% or around 116 million people.

Despite their significant contribution, MSMEs in Indonesia still face a number of complex challenges. Initial observations in Sarinah, Central Jakarta showed the fundamental problems experienced by MSME players. The majority of MSMEs experience obstacles in business development, ranging from difficulties in digital literacy, technology-based product creation, limited management knowledge, to difficulties in product innovation that is difficult for competitors to imitate.

Data from the Indonesian Joint Funding Fintech Association (AFPI) in 2020 revealed the shocking fact that 46.6 million out of 64 million MSMEs do not have access to capital from banks or financial institutions. This is exacerbated by low financial literacy, as shown by Katadata Insight Center (KIC) research in 2023 which noted that Indonesia's financial literacy index only reached 69.7 points on a scale of 0-100, with a very minimal increase of only 3.2% from 2020.

Previous research shows mixed results and raises interesting research gaps. Some studies support the important role of financial literacy, business knowledge and digital literacy in MSME development, especially if accompanied by innovation. However, other studies have found no significant link between these variables and MSME development.

The problems surrounding MSMEs are not simple. Limited access to financing, low product innovation, lack of digital readiness, limited access to marketing, and low financial literacy and business knowledge are systemic challenges that require a comprehensive and strategic approach.

It is in this context that this study is designed to conduct an in-depth investigation. The main objective of the research is to analyze the influence of financial literacy, digital

literacy and business knowledge on MSME development by placing innovation as a mediating variable. This research does not merely seek to identify the key factors of MSME development, but also intends to map the complexity of the challenges faced, provide strategic recommendations, and bridge the gap of previous research results.

The significance of the research lies in its potential to produce a more comprehensive and sustainable MSME development model. By exploring the relationship between financial literacy, digital literacy, business knowledge and innovation, this research is expected to make meaningful theoretical and practical contributions to the MSME ecosystem in Indonesia. The holistic approach used in this research is expected to serve as a foundation for the development of MSME empowerment strategies that are more effective, responsive to the dynamics of the digital economy, and able to improve the competitiveness of micro, small and medium enterprises in the current era of economic transformation..

## **METHOD**

### **2.1 Literatur Review**

#### **2.1.1 Development of MSMEs (Micro, Small, and Medium Enterprises)**

MSME development is a strategic effort to improve business performance and capabilities through the provision of facilities, guidance, training, and strengthening competitiveness. This development includes increased production, innovation, and market expansion. According to Faturahaman and Karnawati (2016), business development aims to improve the information, attitudes, and skills of MSME actors. Brown & Petrello (1983) added that increasing community needs will encourage the development of MSMEs which leads to increased profits. The development indicators include strategic aspects (strengthening business position and product innovation), marketing management (increasing turnover and network), and financial aspects (increasing profits) (Shinta Dewi, 2013). The dimensions consist of strategy (market creation and new products), marketing management (market share control), and finance (increased business profits).

#### **2.1.2 Financial Literacy**

Financial literacy, according to various experts, is the ability of individuals to understand, manage and use financial knowledge to make effective decisions in various financial contexts. Laily (2013) explains that individuals with good financial literacy are able to manage finances optimally, use financial products efficiently, and make the right decisions. Lestari (2020) adds that financial literacy involves knowledge, skills, and beliefs that influence individual attitudes and behaviors to improve quality financial decision making for welfare. OECD (2017) defines financial literacy as a combination of knowledge and skills to understand financial concepts, identify risks, and make appropriate decisions to improve individual and community welfare.

Financial literacy indicators, based on research from Wagland & Taylor (2009) and Kapoor et al. (2004), include four main aspects. General financial knowledge includes the ability to understand basic money management concepts, such as income, expenditure and investment concepts.

The dimensions of financial literacy, according to OECD (2017) and Chen & Volpe (1998), include three main components: financial knowledge, financial attitude, and financial behavior. The financial knowledge dimension includes an understanding of basic financial concepts such as savings, investment and risk management.

### **2.1.3 Digital Literacy**

Digital literacy is the ability of individuals to use technology and information from digital devices effectively and efficiently for various purposes, such as academic, career, and daily life. According to Paul Gilster (2023), digital literacy is the ability to optimally utilize technology and information from digital devices in various contexts. Bawden (2023) added that digital literacy includes the ability to gather information from various trusted sources, read and understand dynamic information materials, and link conventional media with network-based media. Gao J. et al. (2023) associate digital literacy with the skills of reading, writing, critical thinking, and the use of technology to participate in society. Wahyu Setyorini & Paristiowati (2023) state that digital literacy is based on the binary number system, which is at the core of modern digital technology.

Hague and Payton (2021) formulated digital literacy indicators that include ICT-skills to process data and create technology-based products, creativity in building and sharing ideas using digital technology, the ability to collaborate actively in digital spaces, and communication skills to convey ideas to audiences. Other indicators include the ability to search and select information from the internet selectively, the ability to think critically in evaluating information, social and cultural understanding relevant to digital society, and awareness of digital safety (e-safety).

Martin (2022) explains that the dimensions of digital literacy include several aspects, namely the ability to carry out digital actions in various life contexts, individual flexibility in everyday situations, the ability to plan, implement and evaluate digital actions, and awareness of their respective digital literacy levels. This dimension also includes the ability to filter information, understand the importance of conventional media in relation to digital media, and feel comfortable in publishing information in the digital world.

### **2.1.4 Business Knowledge**

Business knowledge is defined as the awareness, understanding, and application of information related to business operations, management, and strategies aimed at achieving business success. According to Hisrich (2008), business knowledge is the basis of business resources contained in individuals. This knowledge includes aspects of financial management, marketing, operational management, and business strategy

(Agustian et al., 2023). The relevant theories to understand this concept are knowledge acquisition theory and knowledge management theory. Business knowledge plays an important role in supporting the development of small and medium enterprises (MSMEs). According to Fahmi (2013), this knowledge can provide motivation, direct work in an organized and systematic manner, provide inspiration to see opportunities from problems, and contribute to reducing unemployment rates through job creation.

According to Suryana (2013), business knowledge has four main indicators. First, knowledge of the business to be entered or started. This includes understanding product concepts, business strategy planning, and product marketing. Second, knowledge of the business environment, which includes the internal environment such as labor and capital, as well as the external environment involving factors that do not directly affect production. Third, knowledge of roles and responsibilities, which includes obligations to the environment, society, employees and consumers. Fourth, knowledge of management and organization, which aims to ensure that operational processes such as production, distribution, and marketing run well. According to Mustofa (2014), business knowledge has three important dimensions. The first dimension is the ability to take business risks, which is the courage and accuracy in facing uncertainty and managing risks through market research and periodic evaluation. The second dimension is the ability to analyze business opportunities, which involves identifying and evaluating business opportunities through information gathering and market research. The third dimension is the ability to formulate problem solutions, which requires creative, innovative and systematic thinking to overcome challenges in business and turn problems into opportunities.

### **2.1.5 Innovation**

Innovation is an important process for companies to survive in the face of increasingly fierce market competition. According to Nasution (2006), innovation can be defined as the introduction of new things, which includes new ideas, theories, or methods applied in a business organization. Suryana (2014) also adds that innovation is the ability of creativity that can be applied to provide added value to the resources owned. In a broader sense, innovation includes the creation of new ideas that can be introduced to improve or create new and better products or services (Stephen Robbins, 1994). This is in line with the views of Damanpour (1996) and Gunday et al. (2011), which emphasize the importance of innovation in creating competitive advantage through new products, processes, or marketing approaches.

Innovation indicators consist of several important aspects that reflect the success of an innovation in meeting market needs and increasing competitiveness. In terms of product innovation, Bao et al. (2017) suggest that companies that introduce product innovations with completely new attributes, are able to meet customer needs with rapid innovation, and often adopt new ideas in product development will have an advantage.

Process innovation, according to Najib and Kiminami (2011), refers to the introduction of new processes in production that can improve efficiency, reduce costs, and speed up time to market. Service innovation, on the other hand, focuses on improving

service quality to meet market needs and increase customer satisfaction, as described by Storey et al. (2016) and Delafrooz et al. (2013).

The product innovation dimension has several forms, as expressed by Pratiwi (2016), which mentions line extensions, new products, and completely new products. Line expansion refers to a variety of products that make it easier for consumers to choose according to their needs. New products, or products that are similar to those already on the market, are not entirely new to consumers. While completely new products are innovations that have never existed before, both for the company and the market. Characteristics of product innovation, according to Ellitan et al. (2009), include relative advantage, compatibility with consumer values and needs, complexity in use, ease of trying, and easy to observe the results of innovation.

## 2.2 Conceptual Framework

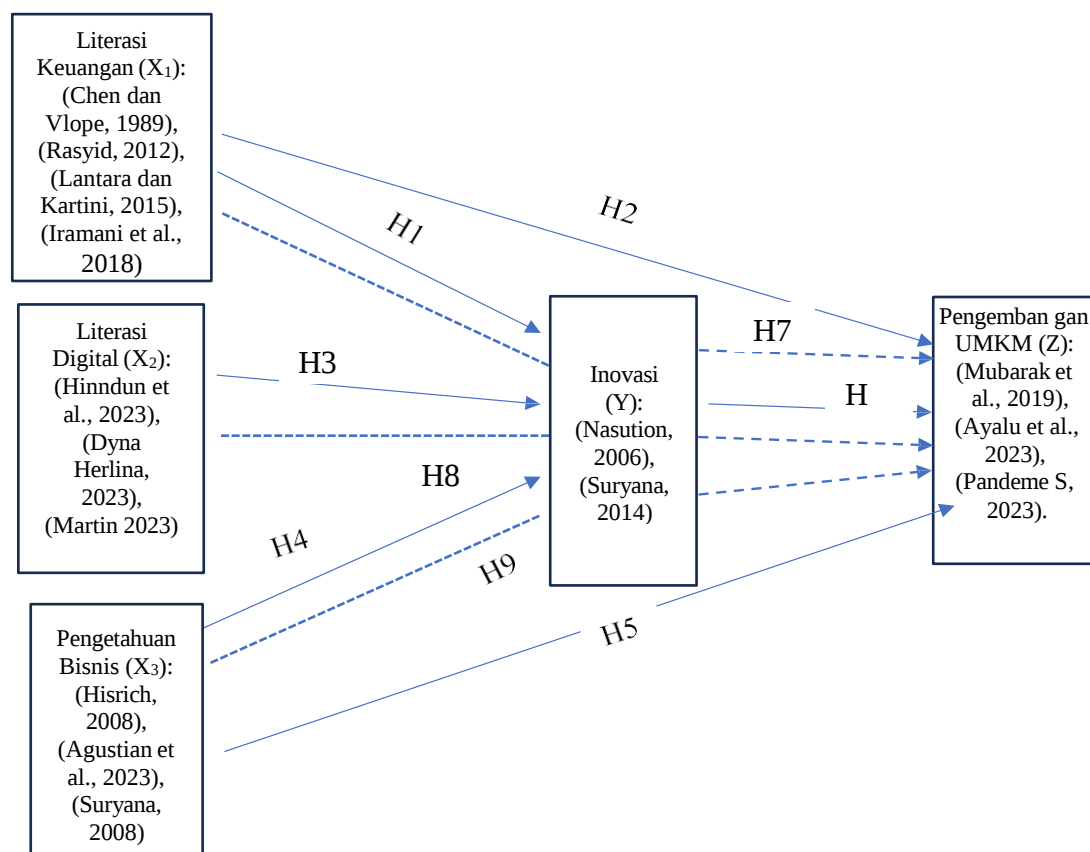


Figure 1. Conceptual Model

Based on literature review, theory, and previous research that has been presented, the research hypothesis is formulated as follows:

- H1. There is a direct positive influence between financial literacy and innovation.
- H2. There is a direct positive influence between financial literacy and MSME development.
- H3. There is a direct positive influence

between digital literacy and innovation.

H4. There is a direct positive influence between business knowledge and innovation.

H5. There is a direct positive influence between business knowledge and MSME development.

H6. There is a direct positive influence between innovation has a positive effect on MSME development.

H7. There is a direct positive influence between financial literacy on MSME development if mediated by innovation.

H8. There is a direct positive influence between digital literacy has a positive effect on MSME development if mediated by innovation.

H9. There is a direct positive influence between business knowledge has a positive effect on

MSME development if mediated by innovation.

### **2.3 Population And Sample**

According to Sugiyono (2022) population is a generalized area consisting of objects or subjects with certain qualities and characteristics determined by the researcher to be studied and then conclusions drawn. Affordable populations are populations that can be observed by researchers because they are limited by place, time, and costs. An affordable population is a group that represents a theoretical population with regard to characteristics or characteristics that can influence research results that can actually be achieved (Swisher, 2022) The respondents used are employees or owners of MSMEs whose population of fashion MSMEs in Sarinah totals 218 MSMEs and produces a sample of 141 MSME questionnaires in the fashion sector such as clothing, weaving and batik.

In determining the sample size for this research, researchers used the Isaac and Michael table with an error rate of 5% from a population of 218, resulting in a sample of 141 MSMEs. Determining the sample for each school used proportionate random sampling, so that respondents for each school were obtained as follows:

**Table 1 Sample Of Sarinah Msmes In The Fashion Sector**

| No. | Name msmes           | No. | Name msmes           | No.  | Name msmes             |
|-----|----------------------|-----|----------------------|------|------------------------|
| 1.  | Batik Dudung         | 51. | Rafidain             | 101. | Sanggar Doka Tawa Taba |
| 2.  | Pisdlin Kata Batik   | 52. | Batik Warisan        | 102. | Itang Yunasz           |
| 3.  | Runah Kreatif Pintar | 53. | Moc                  | 103. | Kims Oud               |
| 4.  | Unique Resilen       | 54. | Batik Hadiriyento    | 104. | Kaenina Conta Batik    |
| 5.  | Sovlo                | 55. | Yashokgy             | 105. | Yashokgy               |
| 6.  | Tona Tenun           | 56. | Soedjarno            | 106. | Hijasmita Art U Ready  |
| 7.  | Raena                | 57. | Boldsession          | 107. | Batik Widayati Semilar |
| 8.  | Dr By Dewi Rika      | 58. | Emba                 | 108. | Valino Donna           |
| 9.  | Roemah Kebaya        | 59. | Mills Telusur Kultur | 109. | Sancraft               |
| 10. | Arrow                | 60. | Racheli              | 110. | Tanda Mata             |
| 11. | Watchout             | 61. | Simplicity           | 111. | Project Sekar          |

|     |                        |      |                      |      |                               |
|-----|------------------------|------|----------------------|------|-------------------------------|
| 12. | Toraja Melo            | 62.  | Salt N Paper         | 112. | Rumah Raku                    |
| 13. | Ranti                  | 63.  | Ethnologi            | 113. | Adinda Moeda                  |
| 14. | Crocodile              | 64.  | Solo Putri Kain      | 114. | Expand                        |
| 15. | Jobb                   | 65.  | Parang Kencana       | 115. | Batik Warisan                 |
| 16. | Sida Mukti Batik Semar | 66.  | Orselld              | 116. | Dara Baro                     |
| 17. | Anjani                 | 67.  | Gea                  | 117. | Sekowil Hdluan Bali           |
| 18. | Parang Kencang         | 68.  | Jenaka Rao Ulos      | 118. | Umbul Tirta                   |
| 19. | Logo                   | 69.  | Amanda Hartanto      | 119. | Danar Hadi                    |
| 20. | Manna Queen            | 70.  | Posh Boy             | 120. | Djenggala                     |
| 21. | Ayune Bymelati         | 71.  | Geela                | 121. | Buccheri                      |
| 22. | Nail                   | 72.  | Zainal Songket       | 122. | Nccar Lowalata                |
| 23. | Kea                    | 73.  | Hikmat Fashion       | 123. | Kettler                       |
| 24. | Zainal Songket         | 74.  | Shafira              | 124. | Neru Boolao                   |
| 25. | Andre Laurent          | 75.  | Pithecantropus       | 125. | Lisa Busana Ratu              |
| 26. | Batii Nini             | 76.  | Polo                 | 126. | Teriageru                     |
| 27. | Arnold Parmer          | 77.  | Nona Rara            | 127. | Gdleri Batik Jawa             |
| 28. | Rampege                | 78.  | Pesona Madura        | 128. | Padu Padan Twnyb Napae Cantik |
| 29. | Ananta House           | 79.  | Parang Kencanc       | 129. | Aruna                         |
| 30. | Votum By Sebastian     | 80.  | Pier Cardin          | 130. | Riana Kusuma                  |
| 31. | Valino Donnc           | 81.  | Ellylle Annacole     | 131. | Benang Jarum                  |
| 32. | Nusantara Fashion      | 82.  | Batik Chic           | 132. | Melookmel Hendri Budiman      |
| 33. | Kims Oud               | 83.  | Debz                 | 133. | Carthago                      |
| 34. | Executive              | 84.  | Adialavani           | 134. | Orsella                       |
| 35. | Soda Garan             | 85.  | Batik Pribadi Dleira | 135. | Andre Laurent                 |
| 36. | Nija Poenjah           | 86.  | Tuty Adit            | 136. | Rumah Betawwdru Padi          |
| 37. | Color Box              | 87.  | Torang Sitorus       | 137. | Exisize Damiten               |
| 38. | Sorella                | 88.  | Rumah Rakuji         | 138. | Batk Apip                     |
| 39. | Batik Harni            | 89.  | Smau Kita            | 139. | Bendoro                       |
| 40. | Eprise                 | 90.  | Dida Busand          | 140. | Sovlo                         |
| 41. | De Stasiun             | 91.  | Oscar Lawalata       | 141. | Neru                          |
| 42. | Brono Premu            | 92.  | Miniral              |      |                               |
| 43. | Amoecraft              | 93.  | Batik Semar          |      |                               |
| 44. | Kana Goods             | 94.  | Samuel Wattimena     |      |                               |
| 45. | Solo Putri             | 95.  | Hammer               |      |                               |
| 46. | Factor                 | 96.  | Sessa                |      |                               |
| 47. | Oe                     | 97.  | Falency              |      |                               |
| 48. | Nusa Kebaya            | 98.  | Ogiyogi              |      |                               |
| 49. | Andrew Laurent         | 99.  | Koze                 |      |                               |
| 50. | Probina Nastraartline  | 100. | Potter               |      |                               |

## 2.4 Data Collection Technique

The data collection technique used in this research was distributing questionnaires. According to Sugiyono (2022) a questionnaire is a data collection technique that is carried out by giving a series of questions or written statements to respondents to answer. The type of questions given to respondents in this study were closed questions because respondents were expected to choose one alternative answer for each question provided. Questions or statements in the questionnaire are made positive and negative so that respondents are serious in answering each question or statement given. The scale used in this research is the likert scale.

## 2.5 Data Analysis Technique

The data analysis techniques used in this research are descriptive and inferential statistics. Data analysis was carried out using the Partial Least Square (PLS) approach using SmartPLS version 4 software. PLS can analyze constructs formed using formative and reflective indicators at the same time (Irwan & Adam, 2015). PLS was designed to overcome the limitations of regression analysis with the Ordinary Least Square (OLS) technique. These limitations include problems with small data size, missing values,

abnormal data distribution, and symptoms of multicollinearity (Haryono, 2016). Evaluation through Outer Model evaluation and Inner model evaluation. the relationship between latent variables and indicators that are measured or observed. Structural Models or Inner Models are those that describe the relationships between latent variables.

## RESULT AND DISCUSSION

### 3.1 Result

#### 3.1.1 Outer Model Evaluation

Table 1 Outer Loading

| Variable                | Measurement Items | Outer Loading | AVE   | Cronbach's alpha | Composite Reability |
|-------------------------|-------------------|---------------|-------|------------------|---------------------|
| INOVASI (Y)             | I1                | 0.762         | 0.619 | 0.877            | 0.907               |
|                         | I2                | 0.775         |       |                  |                     |
|                         | I3                | 0.767         |       |                  |                     |
|                         | I4                | 0.794         |       |                  |                     |
|                         | I5                | 0.837         |       |                  |                     |
|                         | I6                | 0.784         |       |                  |                     |
| LITERASI DIGITAL (X2)   | LD1               | 0.852         | 0.661 | 0.967            | 0.969               |
|                         | LD10              | 0.806         |       |                  |                     |
|                         | LD11              | 0.799         |       |                  |                     |
|                         | LD12              | 0.832         |       |                  |                     |
|                         | LD13              | 0.795         |       |                  |                     |
|                         | LD14              | 0.825         |       |                  |                     |
|                         | LD15              | 0.799         |       |                  |                     |
|                         | LD16              | 0.817         |       |                  |                     |
|                         | LD2               | 0.802         |       |                  |                     |
|                         | LD3               | 0.803         |       |                  |                     |
|                         | LD4               | 0.798         |       |                  |                     |
|                         | LD5               | 0.869         |       |                  |                     |
|                         | LD6               | 0.809         |       |                  |                     |
|                         | LD7               | 0.810         |       |                  |                     |
|                         | LD8               | 0.789         |       |                  |                     |
|                         | LD9               | 0.805         |       |                  |                     |
| LITERASI KEUANGAN (X1)  | LK1               | 0.816         | 0.601 | 0.905            | 0.923               |
|                         | LK2               | 0.784         |       |                  |                     |
|                         | LK3               | 0.787         |       |                  |                     |
|                         | LK4               | 0.706         |       |                  |                     |
|                         | LK5               | 0.735         |       |                  |                     |
|                         | LK6               | 0.778         |       |                  |                     |
|                         | LK7               | 0.803         |       |                  |                     |
|                         | LK8               | 0.786         |       |                  |                     |
| PENGEMBANGAN UMKM (Z)   | PB1               | 0.798         | 0.624 | 0.879            | 0.909               |
|                         | PB2               | 0.806         |       |                  |                     |
|                         | PB3               | 0.779         |       |                  |                     |
|                         | PB4               | 0.764         |       |                  |                     |
|                         | PB5               | 0.759         |       |                  |                     |
|                         | PB6               | 0.832         |       |                  |                     |
|                         | PB7               | 0.798         |       |                  |                     |
| PENGETAHUAN BISNIS (X3) | PU1               | 0.770         | 0.660 | 0.917            | 0.931               |
|                         | PU2               | 0.815         |       |                  |                     |
|                         | PU3               | 0.866         |       |                  |                     |
|                         | PU4               | 0.832         |       |                  |                     |
|                         | PU5               | 0.813         |       |                  |                     |
|                         | PU6               | 0.796         |       |                  |                     |

Table 2 shows that each item has an outer loading factor value  $\geq 0.7$ , which means that all items have met the validity requirements and all items are valid for measuring

construct variables. The average variance extracted value for the Innovation education variable is 0.619; the financial literacy variable is 0.601; the digital literacy variable is 0.661; and the business knowledge variable is 0.660; the MSME development variable is 0.624. The AVE value for the five variables in this study is  $> 0.50$ , so the variable is declared valid. The Cronbach's alpha value for the financial literacy variable is 0.905; the digital literacy variable is 0.967; the business knowledge variable is 0.917; and the innovation variable is 0.877; and the MSME development variable is 0.879. This shows that the five variables in this study have a Cronbach's alpha value  $> 0.7$ , which means that each element shows good consistency. The composite reliability value for the financial literacy variable is 0.923; the digital literacy variable is 0.969; the business knowledge variable is 0.931; and the innovation variable is 0.907; and the MSME development variable is 0.909. All composite reliability values for the four variants are  $> 0.7$ . This indicates that overall financial literacy, digital literacy, business knowledge, innovation and MSME development have an acceptable level of reliability or each measurement element as a whole is consistent or reliable.

### 3.1.2 Discriminant Validity

Table 2 Heterotrait - Monotrait Ratio (HTMT)

|                         | INOVASI (Y) | LITERASI DIGITAL (X2) | LITERASI KEUANGAN (X1) | PENGEMBANGAN UMKM (Z) |
|-------------------------|-------------|-----------------------|------------------------|-----------------------|
| Inovasi (Y)             |             |                       |                        |                       |
| Literasi Digital (X2)   | 0.651       |                       |                        |                       |
| Literasi Keuangan (X1)  | 0.629       | 0.091                 |                        |                       |
| Pengembangan Umkm (Z)   | 0.620       | 0.677                 | 0.613                  |                       |
| Pengetahuan Bisnis (X3) | 0.667       | 0.162                 | 0.103                  | 0.634                 |

Based on Table 3, each pair of variables shows an HTMT value  $< 0.90$ . This shows that the variance built by the variable's entrepreneurship education, social support, self-efficacy, and studentpreneur behavior has good discriminant validity and these constructs are different from each other.

### 3.1.3 Inner Model Evaluation

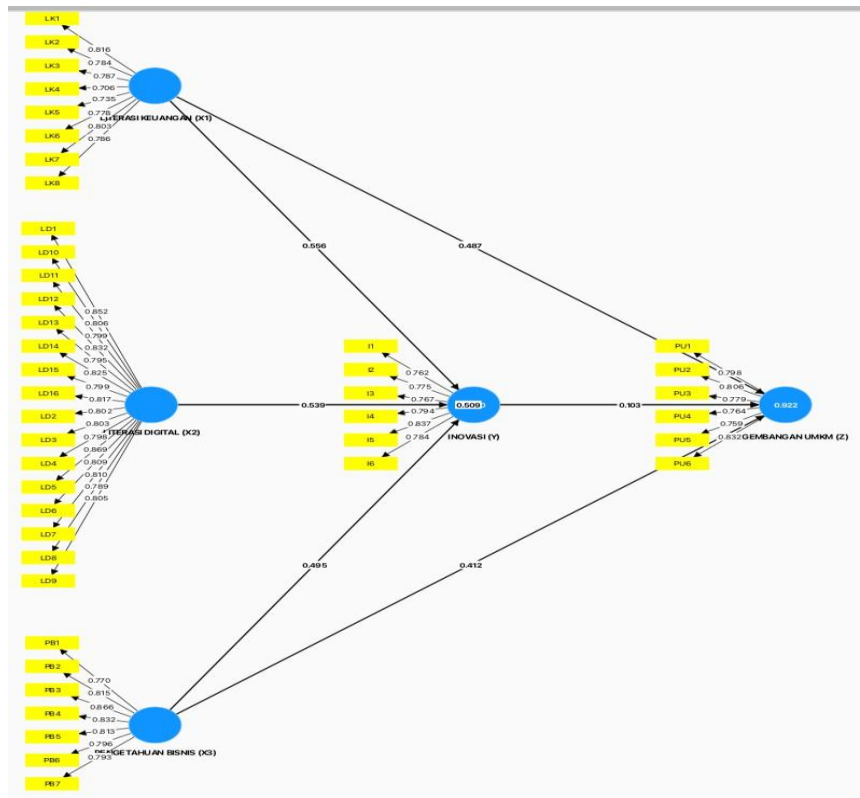


Figure 2 Inner Model

Table 4 Inner Model

| Hypothesis                                                     | Original sample (O) | r-square | Standard deviation (STDEV) | T statistics ( O/STDEV ) | P values | f-square/Upsilon V | VIF   |
|----------------------------------------------------------------|---------------------|----------|----------------------------|--------------------------|----------|--------------------|-------|
| Inovasi (Y) -> Pengembangan Umkm (Z)                           | 0.103               | 0.940    | 0.086                      | 2.120                    | 0.023    | 0.185              | 4.580 |
| Literasi Digital (X2) -> Inovasi (Y)                           | 0.539               | 0.922    | 0.036                      | 15.082                   | 0.000    | 0.469              | 1.025 |
| Literasi Digital (X2) -> Pengembangan Umkm (Z)                 | 0.565               | -        | 0.036                      | 15.718                   | 0.000    | 0.569              | 3.836 |
| Literasi Keuangan (X1) -> Inovasi (Y)                          | 0.556               | -        | 0.038                      | 14.715                   | 0.000    | 0.511              | 1.002 |
| Literasi Keuangan (X1) -> Pengembangan Umkm (Z)                | 0.544               | -        | 0.040                      | 13.572                   | 0.000    | 0.495              | 3.132 |
| Pengetahuan Bisnis (X3) -> Inovasi (Y)                         | 0.495               | -        | 0.038                      | 12.918                   | 0.000    | 0.395              | 1.026 |
| Pengetahuan Bisnis (X3) -> Pengembangan Umkm (Z)               | 0.463               | -        | 0.039                      | 11.969                   | 0.000    | 0.428              | 4.085 |
| Literasi Digital (X2) -> Inovasi (Y) -> Pengembangan Umkm (Z)  | 0.056               | -        | 0.047                      | 2.197                    | 0.023    | -                  | -     |
| Literasi Keuangan (X1) -> Inovasi (Y) -> Pengembangan Umkm (Z) | 0.058               | -        | 0.048                      | 2.205                    | 0.022    | -                  | -     |

|                                                                 |       |   |       |       |       |   |   |
|-----------------------------------------------------------------|-------|---|-------|-------|-------|---|---|
| Umkm (Z)                                                        |       |   |       |       |       |   |   |
| Pengetahuan Bisnis (X3) -> Inovasi (Y) -> Pengembangan Umkm (Z) | 0.051 | - | 0.043 | 2.195 | 0.023 | - | - |

Table 4 shows that if the VIF value is  $<5$ , there is no multicollinearity between the variables that influence innovation or MSME development. The R-square value, according to Chin W (1998), has the criteria of low influence (0.19), moderate influence (0.33), and high influence (0.67). The R-square value for the innovation variable is 0.940 (high), meaning that the variability of the innovation construct that can be explained by the variability of financial literacy, digital literacy, and MSME development constructs is 94%. The R-square value for the MSME development variable is 0.922 (high), meaning that the variability of the MSME development construct that can be explained by the variability of financial literacy, digital literacy, business knowledge, and innovation constructs is 92%, while the rest is explained by variables outside the study. Therefore, it can be concluded that the influence is high.

The interpretation of the f-square value for direct effects is based on Hair et al. (2019), namely 0.02 (low), 0.15 (moderate), and 0.35 (high). Based on the f-square value, the output shows that all variables have a strong influence, except for the influence of innovation on MSME development, which has a moderate effect in the structural model. Hypothesis testing is conducted by examining the p-value. If the p-value  $<0.05$ , the hypothesis is accepted. Based on Table 4, the following explanations are provided:

There is an influence of innovation on MSME development. This is evidenced by a t-value  $> t$ -table ( $2.100 > 1.96$ ) or p-value  $<0.05$  ( $0.023 < 0.05$ ), so  $H_0$  is rejected, and  $H_a$  is accepted. A positive coefficient value indicates a positive influence, meaning that if innovation increases, MSME development also increases. There is an influence of digital literacy on innovation. This is evidenced by a t-value  $> t$ -table ( $15.082 > 1.96$ ) or p-value  $<0.05$  ( $0.000 < 0.05$ ), so  $H_0$  is rejected, and  $H_a$  is accepted. A positive coefficient value indicates a positive influence, meaning that if digital literacy increases, innovation also increases. There is an influence of digital literacy on MSME development. This is evidenced by a t-value  $> t$ -table ( $8.654 > 1.96$ ) or p-value  $<0.05$  ( $0.000 < 0.05$ ), so  $H_0$  is rejected, and  $H_a$  is accepted. A positive coefficient value indicates a positive influence, meaning that if digital literacy increases, MSME development also increases. There is an influence of financial literacy on innovation. This is evidenced by a t-value  $> t$ -table ( $14.715 > 1.96$ ) or p-value  $<0.05$  ( $0.000 < 0.05$ ), so  $H_0$  is rejected, and  $H_a$  is accepted. A positive coefficient value indicates a positive influence, meaning that if financial literacy increases, innovation also increases. There is an influence of financial literacy on MSME development. This is evidenced by a t-value  $> t$ -table ( $7.568 > 1.96$ ) or p-value  $<0.05$  ( $0.000 < 0.05$ ), so  $H_0$  is rejected, and  $H_a$  is accepted. A positive coefficient value indicates a positive influence, meaning that if financial literacy increases, MSME development also increases. There is an influence of business knowledge on innovation. This is evidenced by a t-value  $> t$ -table ( $12.918 > 1.96$ ) or p-value  $<0.05$  ( $0.000 < 0.05$ ), so  $H_0$  is rejected, and  $H_a$  is accepted. A positive coefficient value indicates a positive influence, meaning that if

business knowledge increases, innovation also increases. There is an influence of business knowledge on MSME development. This is evidenced by a t-value  $> t$ -table ( $7.477 > 1.96$ ) or p-value  $< 0.05$  ( $0.000 < 0.05$ ), so  $H_0$  is rejected, and  $H_a$  is accepted.

A positive coefficient value indicates a positive influence, meaning that if business knowledge increases, MSME development also increases. Based on the p-value for the indirect effect of X1 on Z through Y, which is 0.022, it can be concluded that the financial literacy variable influences MSME development through innovation. Based on the p-value for the indirect effect of X2 on Z through Y, which is 0.023, it can be concluded that the digital literacy variable influences MSME development through innovation. Based on the p-value for the indirect effect of X3 on Z through Y, which is 0.023, it can be concluded that the business knowledge variable influences MSME development through innovation.

### **3.2 Discussion**

This research, based on the constructivist theory (Lev Vygotsky, 1934; John Dewey, 1859; Jerome Bruner, 1915), views the role of financial literacy, digital literacy, and business knowledge in the development of MSMEs (Micro, Small, and Medium Enterprises) as a social construct that influences entrepreneurs' perceptions and actions. Financial literacy enables MSMEs to manage their finances better, while digital literacy expands their access to markets and enhances operational efficiency. Business knowledge provides a framework for better decision-making and MSME business development strategies. In economic education for students or university students, understanding the importance of financial literacy, digital literacy, and business knowledge can be built through direct experience, discussions, and social interactions, creating a solid foundation for understanding the crucial role these factors play in the world of business and entrepreneurship.

#### **3.2.1 The Effect of Financial Literacy on Innovation (Hypothesis 1)**

The results of the data analysis show that financial literacy significantly influences innovation. This is evidenced by t-value  $> t$ -table ( $14.715 > 1.96$ ) and p-value  $< 0.05$  ( $0.000 < 0.05$ ), meaning  $H_0$  is rejected and  $H_a$  is accepted. A positive coefficient indicates that higher financial literacy leads to greater innovation. Thus, the hypothesis stating "financial literacy positively and directly influences innovation" is accepted.

#### **3.2.2 The Effect of Financial Literacy on MSME Development (Hypothesis 2)**

Financial literacy has a significant impact on MSME development, proven by t-value  $> t$ -table ( $7.568 > 1.96$ ) and p-value  $< 0.05$  ( $0.000 < 0.05$ ). A positive coefficient indicates that improved financial literacy enhances MSME development. Therefore, the hypothesis stating "financial literacy positively and directly influences MSME development" is accepted.

### 3.2.3 The Effect of Digital Literacy on Innovation (Hypothesis 3)

Digital literacy significantly influences innovation, supported by  $t\text{-value} > t\text{-table}$  ( $15.082 > 1.96$ ) and  $p\text{-value} < 0.05$  ( $0.000 < 0.05$ ). A positive coefficient suggests that increased digital literacy enhances innovation. Hence, the hypothesis stating "digital literacy positively and directly influences innovation" is accepted.

### 3.2.4 The Effect of Business Knowledge on Innovation (Hypothesis 4)

Business knowledge significantly influences innovation, demonstrated by  $t\text{-value} > t\text{-table}$  ( $12.918 > 1.96$ ) and  $p\text{-value} < 0.05$  ( $0.000 < 0.05$ ). A positive coefficient implies that greater business knowledge leads to increased innovation. Therefore, the hypothesis stating "business knowledge positively and directly influences innovation" is accepted.

### 3.2.5 The Effect of Business Knowledge on MSME Development (Hypothesis 5)

Business knowledge significantly impacts MSME development, as shown by  $t\text{-value} > t\text{-table}$  ( $7.477 > 1.96$ ) and  $p\text{-value} < 0.05$  ( $0.000 < 0.05$ ). A positive coefficient indicates that better business knowledge improves MSME development. Hence, the hypothesis stating "business knowledge positively and directly influences MSME development" is accepted.

### 3.2.6 The Effect of Innovation on MSME Development (Hypothesis 6)

Innovation significantly influences MSME development, evidenced by  $t\text{-value} > t\text{-table}$  ( $2.100 > 1.96$ ) and  $p\text{-value} < 0.05$  ( $0.023 < 0.05$ ). A positive coefficient suggests that increased innovation enhances MSME development. Thus, the hypothesis stating "innovation positively and directly influences MSME development" is accepted.

### 3.2.7 The Effect of Financial Literacy on MSME Development Mediated by Innovation (Hypothesis 7)

Financial literacy affects MSME development through innovation, with a direct effect of 0.487, an indirect effect of 0.058, and a total effect of 0.545. The direct effect is greater than the indirect effect. The indirect effect's  $p\text{-value}$  (0.022) is less than 0.05, confirming the hypothesis that "financial literacy indirectly influences MSME development when mediated by innovation."

### 3.2.8 The Effect of Digital Literacy on MSME Development Mediated by Innovation (Hypothesis 8)

Digital literacy influences MSME development through innovation, with a direct effect of 0.509, an indirect effect of 0.056, and a total effect of 0.565. The direct effect is greater than the indirect effect. The indirect effect's  $p\text{-value}$  (0.023) is less than 0.05, supporting the hypothesis that "digital literacy indirectly influences MSME development when mediated by innovation."

### **3.2.9 The Effect of Business Knowledge on MSME Development Mediated by Innovation (Hypothesis 9)**

Business knowledge affects MSME development through innovation, with a direct effect of 0.412, an indirect effect of 0.051, and a total effect of 0.463. The direct effect is greater than the indirect effect. The indirect effect's p-value (0.023) is less than 0.05, confirming the hypothesis that "business knowledge indirectly influences MSME development when mediated by innovation."

## **CONCLUSION**

The research conducted on SME owners in Sarinah explores the impact of financial literacy, digital literacy, and business knowledge on SME development, mediated by innovation. The study, using Structural Equation Modeling (SEM) with Partial Least Squares (PLS), confirms a significant positive relationship between these factors and SME growth in Sarinah, Jakarta. Financial literacy allows SMEs to manage funds effectively, plan product development, manage cash flow, and invest in new technologies, thereby fostering innovation. Digital literacy, on the other hand, helps SMEs expand their market reach through e-commerce and digital marketing, while improving operational efficiency. Business knowledge provides the foundation for developing strategies that drive innovation.

The research also emphasizes that innovation plays a central role in SME development by creating new products, improving services, and adopting more effective business processes. Furthermore, the study shows that the combined influence of financial literacy, digital literacy, and business knowledge is stronger when mediated by innovation. Sarinah's modern facilities, digital infrastructure, and SME development programs provide an ideal environment for implementing these literacies and driving sustainable SME growth.

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