

Customer Loyalty in University Business Incubators: A Sustainable Marketing Approach

Rissa Hanny A^{1*}, Mohamad Rizan B², Setyo Ferry Wibowo C²

¹Doctorate Student, Jakarta State University, Jakarta, Indonesia

²Faculty of Economic and Business, Jakarta State University, Jakarta, Indonesia

*Corresponding author: Rissa Hanny A

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Abstract: University business incubators serve as a key tool in fostering new entrepreneurs who are creative, competitive, and focused on economic sustainability. These incubators offer resources, guidance, financial support, and networking opportunities that enhance the entrepreneurial environment. This study aims to address this gap by proposing a sustainable marketing strategy to enhance consumer loyalty among business incubator tenants at private universities in Banten Province based on emotional value, purchase intention, and satisfaction. This investigative study employs qualitative patterns to illustrate a sustainable marketing method as a conceptual framework. Three stages utilize data analysis techniques, consisting of the design stage, the intelligent stage, and the selection stage. The outcomes from this review reveal that the first step in constructing a research model related to private university business incubators, emphasizing customer loyalty and sustainable marketing tactics, entails dividing it into several smaller models. These models can subsequently be assessed using statistical software like IBM SPSS AMOS, LISREL, etc., chosen according to the ultimate sample size for the preferred method of analysis. Based on the results from the goodness-of-fit evaluation in this study, multiple recommendations can be proposed. These suggestions may act as references for threshold values in assessment models, streamlining quicker decision-making, such as analyzing Chi-Square (X^2) and RMSEA score results to determine whether to conduct a re-specification test or to interpret goodness-of-fit criteria in support of an alternative hypothesis.

Keywords: Sustainable Marketing, Business Incubators, Emotional Value, Purchase Intention, Satisfaction, Consumer Loyalty.

INTRODUCTION

University business incubators serve as a key tool in fostering new entrepreneurs who are creative, competitive, and focused on economic sustainability. Acting as a space for tenant growth, these incubators offer resources, guidance, financial support, and networking opportunities that enhance the entrepreneurial environment (Hackett & Dilts, 2004). In Indonesia, particularly in Banten Province's private colleges, business incubators are becoming more significant due to the growing demand for young individuals to create startups that can compete in both local and international markets (Kusumawati, Winarko, Wahab, & Pradono, 2017).

In this rapidly evolving digital era, the operational landscape for modern startups and incubators is also heavily shaped by emerging financial technologies. Innovative frameworks within decentralized systems, such as the deployment of

automated protocols, have opened new avenues for operational efficiency and alternative funding mechanisms. According to Kasumu (2025), the integrated applications of blockchain technology provide significant opportunities and transformational prospects for emerging business ecosystems, though they simultaneously present distinct challenges that future entrepreneurs must navigate (Williams, Kasumu, & Kasumu, 2025).

According to the Dick and Basu (1994); Oliver (1999); the success of tenants in business incubators is influenced not just by how well they perform internally, but also by their capacity to foster customer loyalty. Ngobo (2017) stated that loyalty among consumers is crucial for maintaining a sustainable business, as customers who are loyal tend to buy again, give favorable reviews, and help in developing a lasting brand reputation. The success of tenants in business incubators is influenced not just by how well they perform

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internally, but also by their capacity to foster customer loyalty (Bikse, Grinevica, Rivza, & Rivza, 2022). Furthermore, customer interactions and the features available within digital marketing channels can significantly influence the continuous intention of users to engage with a business platform (Saragih & Husain, 2012).

Nevertheless, earlier research has primarily concentrated on internal success metrics, such as the count of successful tenants, the rate of startup survival, and management effectiveness (Grimaldi & Grandi, 2005; Pauwels, Clarysse, Wright, & Van Hove, 2016). At the same time, studies that analyze how environmental assistance, the incubation process, social media promotion, emotional value, buying intention, and satisfaction factors work together to create customer loyalty remain somewhat scarce, particularly among business incubator tenants in developing nations. While research in other sectors within developing nations often

focuses on structural, analytical, and comparative frameworks, such as institutional legal sources (Yahya, Mohamed, & Dheere, 2025) or even pedagogical and learning environment frameworks within education (Norman, 2024) studies that thoroughly integrate environmental and marketing factors in entrepreneurship remain scarce.

Moreover, investigations into social media promotion and emotional value have largely been conducted within larger firms, rather than focusing on tenants of business incubators (Gretzel & Yoo, 2008; Harrigan, Feddema, Wang, Harrigan, & Diot, 2022). Therefore, a lack of research exists regarding the development of a conceptual framework that fully combines these elements. This study aims to address this gap by proposing a sustainable marketing strategy to enhance consumer loyalty among business incubator tenants at private universities in Banten Province.

Table 1: List of Variables and Theories

Variables	Reference
Environment Support	(Gamage, <i>et al.</i> , 2020; Wang, Jin, Jin, & Kan, 2025; Wang, Xu, Zhao, & Liu, 2023; Almeida, 2024)
Incubation Process	(Al-Mubarak & Busler, 2017; García-Salirrosas, <i>et al.</i> , 2024; Gamage, <i>et al.</i> , 2020)
Social Media Marketing	(Bin, 2023; Zollo, Filieri, Rialti, & Yoon, 2020; Asna, Fitriani, & Mashudi, 2023)
Emotional Value	(Pujiastuti, Nur Utomo, Rahmawati, Hendariningrum, & AmaroZuli, 2025)
Purchase Intention	(Robbani, Mulyadin, & Curatman, 2025)
Satisfaction	(Rahma, Tabrani, & Wiyanti, 2025; Hasan & Chevanton, 2025)
Customer Loyalty	(Wang, Jin, Jin, & Kan, 2025)

Source: Proposed in this study (2025)

METHODOLOGY

This research employs fundamental methods to pursue the advancement of understanding and to find new solutions for particular issues, with outcomes that may be utilized by an organization eventually. Furthermore, the primary objective is to further scientific

knowledge with an emphasis on 'generalization.' (Ghanad, 2023). This design approach uses a qualitative type, i.e., exploratory research, to explain model research conceptual for Customer Loyalty in University Business Incubators with Sustainable Marketing Approach.

Table 2: Modeling Process / the Decision Making

Phase of Type	Framework	Pointer
Intelligence	Simplification or Assumptions	<ul style="list-style-type: none"> Organizational objectives Seek and observing procedures Data collecting Problem; each of identification, ownership, classification, and statement
Design	Validation of the Model	<ul style="list-style-type: none"> Set a Model Formulate criterion for selecting Seek for alternatives Portend and measure outcomes
Implementation of Solution	Verifying, Testing of Proposed Solution	<ul style="list-style-type: none"> Solution to the model Sensitivity analysis Choise of the best (good) alternative Plan for implementation

Source: (Sharda, *et al.*, 2015; Husain, 2019)

Intelligence Phase

This phase starts with pinpointing the aims and objectives of the organization concerning the issue being

investigated. Following that, assess whether a problem is present by considering how, where, and how significant the circumstance is. Classifying problems involves

organizing them into specific groups and established approaches to solutions. It is important to categorize problems using organized methods that are clear to them. Numerous complicated problems are broken down into smaller issues. Addressing these simpler sub-problems can aid in resolving more intricate challenges, including those that appear chaotic and, at times, even have very organized sub-issues (Sharda, *et al.*, 2015, hal. 51; 54-55).

Design Phase

This stage focuses on identifying, creating, and evaluating potential actions, which includes comprehending the issue and assessing the practicality of solutions. The decision-making framework designed to address problems should consist of construction, evaluation, and validation (Sharda, *et al.*, 2015, hal. 56). The current study utilizes descriptive modeling that mathematically depicts scenarios, aiding in determining the outcomes of various alternative strategies under different configurations and processes. The selection of an optimization model can be automatically generated by the system. Nonetheless, in many management control contexts, alternatives are often required to be created manually. This study analyzes both exploration and innovation to develop the most effective alternative model within a sufficient timeframe, ensuring that any excess information collected does not disrupt the decision-making process.

The outcomes of each alternative will be assessed and directly related to meeting the objectives. This evaluation aims to determine if the suggested model aligns well with the data based on the following measurement standards. The criteria outlined in this document are: (i) absolute fit indices, which include Chi-Square (X^2), Goodness-of-Fit Index (GFI), Root Mean Square Error of Approximation (RMSEA), and Root Mean Square Residual (RMR) along with Standardized RMR; (ii) incremental fit indices, which feature Adjusted Goodness of Fit Indices (AGFI), Normal Fit Index (NFI), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI), and Relative Fit Indices (RFI); and (iii) parsimonious fit indices, which encompass Parsimony Goodness Fit Index (PGFI) and Parsimony Normed Fit Index (PNFI). The Normed Chi-Square (CMIN/df) is used to support

the model and data for an 'acceptable/fit' decision (Hair Jr., Hult, Ringle, Sarstedt, & Danks, 2021, hal. 666-669).

Choice Phase

This phase represents an important decision and action in practical decision-making and involves adhering to certain steps. Moreover, the decision support system can aid the selection stage by using "what-if" scenarios and "goal-seeking" evaluations (Sharda, *et al.*, 2015, hal. 69,76). Additionally, the search for a solution anticipated as a suggestion for its practicality is likely to function as an example analysis of the output produced. Ultimately, this choice is executed in a more effective and straightforward manner to assess a target.

RESULTS AND DISCUSSION

Intelligence Phase

This phase begins by continuing:

- Goals of the organization; a comprehensive way to assess customer loyalty based on the emotional value, purchase intention, and satisfaction variables
- Search and exploration methods; employ research subjects from private of University Business Incubators in the region of LLDIKTI IV, Banten province
- Plan for gathering data utilizes college student perceptions based on dimensions or indicators defined and specifies data sources (primary data)
- Alternative solutions; utilize a suggested model with various options that simulate empirical modelling.

Design Phase

This phase begins with a decision-making framework that incorporates formulation models from earlier studies within this research, which are broken down into various dimensions, indicators, and statement items based on a 'Linkert' scale. Next, it is essential to define and assign each component according to specific criteria or alternative research objectives. In conclusion, outcomes can be predicted and assessed by formulating a path diagram that represents a conceptual model with multiple alternatives as outlined below:

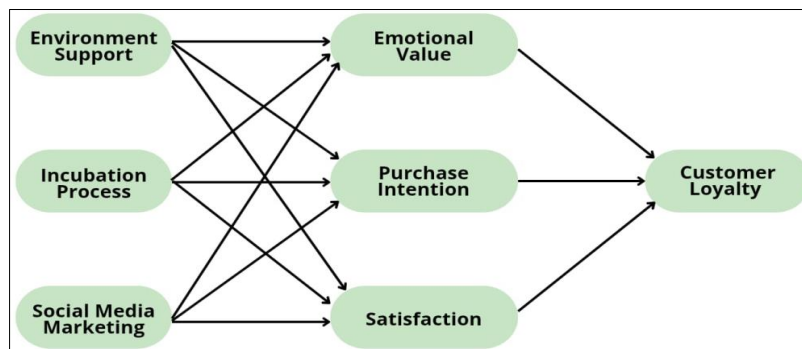


Figure 1: Research Model Conceptual

Against set the alternative reply to the research aim needs a hypothesis statement from this model proposed, the following as follows:

- H1:** Environmental support has a positive effect on emotional value
H2: Environmental support has a positive effect on purchase intentions
H3: Environmental support has a positive effect on satisfaction
H4: Incubation process support has a positive effect on emotional value
H5: Incubation process support has a positive effect on purchase intentions
H6: Incubation process support has a positive effect on satisfaction
H7: Social media marketing support has a positive effect on emotional value
H8: Social media marketing support has a positive effect on purchase intentions
H9: Social media marketing support has a positive effect on satisfaction
H10: Emotional value support has a positive effect on Customer loyalty
H11: Incubation process support has a positive effect on Customer loyalty
H12: Social media marketing support has a positive effect on Customer loyalty

Choise Phase

This stage begins with the input of information into the model for decision-making to evaluate the emotional value, purchase intention, and satisfaction to implication the customer loyalty (Fig. 1). Each suggested element should be distinctly articulated in the methodology, relying on the clarity of the data sources. This literature indicates the use of primary data, so the definitions of elements and the reference sources must be made clear when detailing the sub-sub elements of each aspect and their measurement indicators while incorporating them into research tools or methods in the input phase. The total number of final samples to analyze needs to be determined using suitable analytical techniques; this literature recommends implementing confirmatory factor analysis methods (known as CFA). For the processing phase of this literature, it is advised to utilize statistical programs such as IBM SPSS AMOS, LISREL, and others for multilevel structural equation modeling.

The evaluation of the emotional value, purchase intention, and satisfaction to implication the customer loyalty starts the stages of processing by assessing the validity and reliability of the data instrument prior to conducting the goodness-of-fit (GoF) evaluation. The assessment of the model's feasibility can be conducted and repeated until the optimal model is identified. Goodness-of-Fit (GoF) is examined using absolute, incremental, and parsimonious fit indices as criteria. Once the Goodness-of-Fit (GoF) assessment meets the established criteria, it allows the results of the full-model

path diagram generated from the program output to support alternative hypotheses in hypothesis testing that align with the research objectives.

CONCLUSION

The initial phase of developing a research model related to business incubators in private universities, focusing on customer loyalty and a sustainable marketing strategy in Banten province, involves breaking it down into several smaller models. Subsequently, the model can be analyzed using statistical software such as IBM SPSS AMOS, LISREL, and others application, chosen based on the final size of the sample for the preferred analysis technique. From the outcomes of the goodness-of-fit assessment in this study, various suggestions can be proposed. These recommendations can serve as a guideline for the threshold values in the evaluation model, facilitating quicker decisions, such as examining the outputs of Chi-Square (X²) and RMSEA scores to decide whether to perform a re-specification test or to interpret the goodness-of-fit that meets criteria to validate an alternative hypothesis.

This study is anticipated to serve as a foundation for the advancement of theories in marketing and entrepreneurship management centered around business incubation, particularly in grasping the processes that foster consumer loyalty within the higher education field. Conversely, marketers are able to create ethical plans that focus on pleasure-driven experiences, aiming not only for financial gain but also for promoting sustainability. The evaluations provided during the model assesment phase using the chosen statistical methods will assist researchers in concluding how to understand the hypothesis or adjust the model until the criteria set for the model are satisfied.

Additional investigation is required to strengthen applied studies, enhance existing literature, and consider various elements like brand reliability, quality of service, ability to innovate, and perceived worth. This exploration should extend the context to business incubators in different areas or state universities, aiming for broader and more inclusive results. Moreover, practical research utilizing surveys or long-term methods can quantitatively assess the accuracy of this theoretical framework while examining shifts in customer loyalty over a defined timeframe.

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