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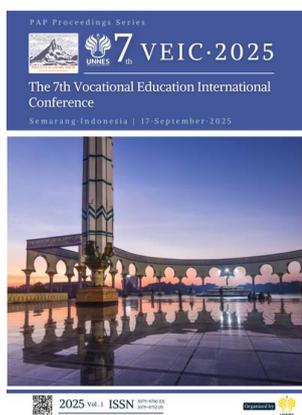
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# Increasing Income Generating through Fashion Entrepreneurial Product Development

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**Abstract:** Product development is a crucial aspect of business implementation in the fashion industry. This study aims to describe the process of entrepreneurial product development in the fashion sector to increase income generating business units in the Fashion Design Education study program at Surabaya State University. The product development process carried out in this study is included in the category of new product development which consists of the stages of planning, design, manufacturing, and launching. Based on the results of product feasibility tests with experts, the percentage of product quality with very good qualifications based on intrinsic, marketing, functional, and social-communicative aspects was obtained with an overall average value of 87.24%. The results obtained after conducting product development are total revenue increases compared to before. The main factors that increase revenue are derived from modifications to product packaging, modifications to product design and types, and product characteristics.

**Keywords:** product development; income generating; fashion; entrepreneur

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## 1. Introduction

State University of Surabaya has a strong, adaptive, and innovative educational university based on entrepreneurship (in accordance with Government Regulation No. 37 of 2022). To support Unesa's vision and mission, the Undergraduate Fashion Education Study Program at the Faculty of Engineering established a business unit to facilitate the implementation of the entrepreneurship program through the Fashionesa brand. Fashionesa is a trademark developed for the commercial interests of the Undergraduate Fashion Design Education Program at UNESA. This brand serves as a means of publication, promotion, and marketing for fashion works produced by lecturers and students of the State University of Surabaya, Fashion Education Study Program.

Income generating is still low because currently State University of Surabaya's initial capital is not very large [1]. The study program that has not maximized its contribution to the university's revenue generation is the Department of Family Welfare Education. This is because the majority of service users are internal students, so the excellence of the study program has not yet contributed to the university's revenue generation. Therefore, it is crucial to determine the implementation of revenue-generating policies regarding staff support, department heads, laboratory heads, lecturers, and existing facilities [2].

Fashionesa, as a business unit, has several divisions, including the production division. The production division is responsible for continuously conducting research and

developing various products for the Fashionesa business unit. Currently, the products developed are still very limited in terms of quantity and quality. Therefore, further development and innovation are needed to meet market needs and keep up with current trends. Based on research findings, if product quality and product innovation are well managed, they will support each other, creating a competitive advantage in the industry. It has been proven that product development and innovation have a statistically significant impact on business performance and competitiveness. Furthermore, product development and innovation are essential for achieving business excellence [3]. Quality and innovation are important factors for adequate accountability to customers. Considering that top managers in this study prioritize accountability, taking into account expert comments and the literature review, quality and innovation need to be given greater attention to achieve adequate accountability [4]. A previous research study found that in Nigeria, the performance of new financial products was suboptimal due to poor product development practices. This study further showed that when poor execution is accompanied by inadequate product development practices, the likelihood of product failure increases, as evidenced by poor product performance and low adoption. The process adopted in financial service development influences the overall adoption, use, and penetration of the product in the target market [5]. Furthermore, engaging in product development and innovation can significantly boost performance in any organization. However, it's important to note that product development, product innovation, and high-level performance are not easy. Progressive organizations must view product development and innovation as crucial to their existence and competitiveness. Research has shown that product development and innovation initiatives are not simply sufficient to secure profitable market share. Instead, aligning much more easily understood factors drives product development goals toward meaningful resource utilization [6].

Product development is an important part of all business operations [7]. Product development is a strategy for company growth by offering modified or new products to existing market segments. Developing product concepts into physical products is an effort to ensure that product ideas can be transformed into products that can be effectively realized [8]. Product development is the process of finding ideas for new goods and services and converting them into commercially successful additions to a product line. New product development is based on the assumption that customers want new features and that introducing new products will help achieve company objectives [9].

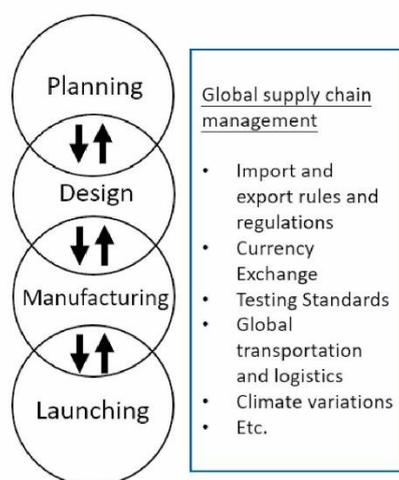
Several previous studies have shown that if prototyping is planned and initiated by individuals high in the organizational hierarchy, they are likely to influence the organizational context and capabilities, thus changing the context. Because the data are based on case studies, it is impossible to claim the specific efficacy of the proposed guidelines. While these approaches are feasible in each case, other strategies and approaches may prove equally effective. Future research should continue along this path, studying prototyping in practice and identifying important contextual factors [10]. Other research is also related to research that aims to explain the process of developing sustainable fashion products [11]. In another study exploring the need for theoretical models, it states that product development is specific to the type of business and retail in the fashion industry and contributes to a new theory that has a specific focus on fashion product development [12]. In other studies, it is also recommended that further research be carried out on how fashion designers can design products to capture market opportunities and generate income and benefits for the economic dimension. New product development is important to undertake as previous research recommends that new product development activities that are performed differently for successful vs. unsuccessful new product lines are idea conceptualization, market analysis, technical and engineering analysis, financial analysis, and commercialization. The commercialization phase is given the lowest priority of all activities. Nevertheless, this phase contributes to the first communication to customers about the new product line [13]. In another study, it was recommended that further studies develop creative ideas and design development

models for sustainable design, and invite students to participate in the Re-Birth design process through actual design courses to understand consumer needs and relevant brand concepts and distribution processes. This will play a role in improving the competence of future designers in critical talent in creating sustainable designs [14]. Therefore, this research aims to develop products with fashion characteristics to increase income generating for study programs in particular and universities more broadly.

## 2. Materials and Methods

The product development process carried out in this research is included in the new product development category which consists of the planning, design, manufacturing and launching stages (As shown in Figure 1).

New product development process  
(Global supply chain management)



**Figure 1.** Product Development Methods.

During the planning stage, all stakeholders (fashion retail brands, manufacturers, designers, etc.) need to collaborate and plan product development strategies, management functions, and related actions. During the planning stage, company management must develop a strategic business plan for sustainable products to achieve business success. Product design is a crucial step in the fashion product development process. Product design influences material use, manufacturing methods, marketing, product launch, and even the entire fashion supply chain. After completing the business plan, the management team needs to review how sustainable design can generate economic benefits. During the product design process, designers need to decide on the details of sustainable products, such as material selection. Manufacturing is the process that transforms design concepts into tangible products. To implement plans during the planning stage, secure collaboration and coordination between designers, suppliers, manufacturers, and fashion retail brands are essential. To address constantly changing needs, manufacturers need to be more flexible and build strong relationships with suppliers. Product launch is the final step of the development. It encompasses all actions that bring the original product from the production process to the consumer. The key actors in this step are fashion retail brands [7].

This research was conducted in the Bachelor of Fashion Design Education study program, Surabaya State University. Data on the quality of the product developed was obtained through internal trials based on the opinions of 3 (three) experts in the fashion field. The data collection method used in this study was a questionnaire. A questionnaire is a data collection technique by providing a set of written statements or questions to

respondents to be answered in order to obtain a conclusion through the data provided. Respondents will provide responses about the variables to be tested through the questionnaire. The questionnaire that will be used to test the validity of this product will use the Likert scale method with a scale of 1-5 with value qualifications of 1 (very bad), 2 (bad), 3 (fairly good), 4 (good) and 5 (very good).

The product assessment criteria developed were adopted from the results of previous research related to product assessment and evaluation which are divided into four mutually exclusive and clearly defined dimensions including Intrinsic, Marketing, Functional, and Socio-Communicative dimensions [15].

The data analysis technique used in this study is quantitative data analysis. Quantitative analysis methods are used to process numerical data obtained through a questionnaire. After collecting data through the questionnaire, quantitative data analysis is conducted to draw conclusions regarding the quality of product development. The formula used to process the data obtained through the questionnaire is as follows.;

$$R = \frac{\text{Total scores obtained}}{\text{Ideal score total}} \times 100\% \quad (1)$$

The interpretation of the response can be described through the interpretation table as follows in Table 1

**Table 1.** Interpretation of Product Assessment Questionnaire.

Grade (%)	Description
0-20	Very bad
21-40	Bad
41-60	Fairly good
61-80	Good
81-100	Very good

### 3. Results

#### 3.1. Planning

In the planning stage, the main points of the new product plan are formulated. This stage also involves analyzing customer satisfaction and determining opportunities for new products and processes. Ideas are also evaluated. Consumer needs are the starting point for developing this fashion entrepreneurial product, both for the domestic and global markets. New products stimulate the company to achieve its business unit and corporate goals. To determine the scope of new products to be considered, the business unit has formulated the main points of the new product plan. This decision serves as an important outline for the new product planning process. The customer satisfaction analysis determines opportunities for new products and processes. The main point produced in this research is to produce fashion products and merchandise with a philosophy of university uniqueness that reflects the characteristics of Surabaya State University.

#### 3.2. Design

The design stage involves the search and identification of various promising ideas, which is the starting point for the new product development process. Ideas range from improvements to existing products to completely new products for a specific business unit. The design stage also includes the development of a marketing strategy. Marketing strategy development consists of three main parts: Describing the size, structure, and behavior of the target market, the planned product position, sales, market share, and desired profit for the first five years. Describing the company's planned pricing, distribution strategy, and budget for the product in the first year. Describing sales volume, profit targets, and subsequent marketing strategies.

The product design concept that will be produced in this research carries the following Figure 2;



**Figure 2.** Product inspiration design to be developed.

This element is inspired by the Unesa logo, a lotus flower topped with a hero's monument, symbolizing purity of heart, nobility of character, and courage in defending truth. This element is a design development of the lotus leaf, created into a kawung batik motif, possessing profound meaning and beautiful aesthetics.

Based on the product concept design above, a product motif design was created that will later be applied to various business products to be produced, as follows in Figure 3.



**Figure 3.** Results of the product motif design to be developed.

The product design utilizes the previously developed lotus and kawung motifs as the primary motifs. Supporting motifs include the slogan and distinctive logo of Surabaya State University, as well as the logos of its business units.

### 3.3. Manufacturing

In the manufacturing phase, the company conducts detailed design, resulting in technical specifications and a final product design. This is followed by testing and refinement to ensure quality and feasibility, ultimately moving to full-scale production for commercialization. Once the detailed design and prototype are deemed feasible, full-scale production begins. This includes planning and organizing production facilities, raw material supply chains, and ensuring smooth manufacturing processes. This phase also involves efforts to optimize production efficiency and costs.

After successfully completing the business analysis phase, product design moves to the development and testing phase. Development and testing involve creating acceptable physical characteristics for new goods and services for customers. The goal is to convert ideas into actual products that are safe, provide benefits to customers, and can be

produced economically by the company. The stages of product testing include: product concept testing, product design testing, consumer preference testing, laboratory testing, factory operation testing, and product usage testing. Once company management is satisfied with the product (after making changes), the next step is testing to determine consumer reactions.

Figure 4 and Figure 5 are some examples of developed products ready for product assessment.



**Figure 4.** Implementation of design in fashion products.



**Figure 5.** Implementation of design on merchandise products.

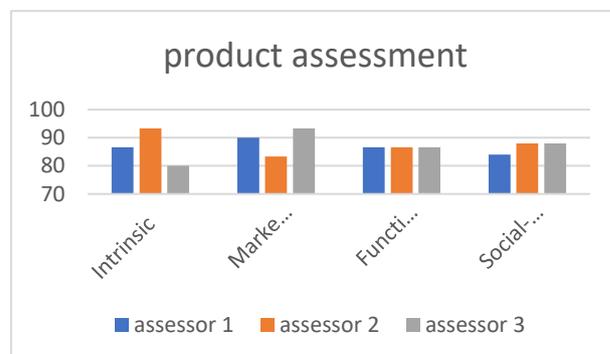
Regarding assessment, there are several assessment dimensions used as reference materials: tangible and intangible criteria, which are categorized into four mutually exclusive dimensions. All tangible criteria fall into one dimension: intrinsic attributes. These are inherent and tangible parts of a product (e.g., color, shape), and changing any of them will physically change the product. These attributes relate to the product's appearance, composition, and structure and can be observed or perceived through the senses. Intrinsic attributes are defined by manufacturers and retailers during the product development and manufacturing stages. Intangible criteria are classified into three distinct dimensions: marketing attributes, functional attributes, and socio-communicative attributes. Marketing attributes are defined by retailers or manufacturers and assist in promoting and selling the product: price, brand, country of origin, service, etc. Functional attributes are instrumental outcomes of consumer-product interactions during product evaluation and use: durability, quality, comfort, protection, etc.

Functional attributes are enabled by intrinsic criteria. For example, thicker fabric with a certain fiber content (an intrinsic attribute) can provide better durability and protection from harsh weather. Socio-communicative attributes relate to the symbolic and communicative aspects of a product. These attributes enable consumers to express or communicate their identity, values, and beliefs in social interactions. This dimension encompasses attributes such as popularity, likeability, appropriateness, and uniqueness.

Socio-communicative attributes are enabled through the complex interaction between tangible and intangible product attributes and are mediated by culture. Consumers use complex mental and intuitive processes to draw conclusions about socio-

communicative product attributes by synthesizing information about tangible and intangible product attributes and interpreting it through the lens of social and cultural norms.

Based on assessments by several experts, the following product assessment results were obtained in Figure 6



**Figure 6.** expert assessment result of the product.

Based on the assessment based on the four dimensions that were determined at the beginning, on average, each assessor gave a score with the criteria of good and very good with a value range from 80% to more than 90%, so it can be said that the product produced is suitable for immediate marketing. Based on the results of the overall assessor calculation, the assessment result was 87.24%, which is included in the very good category.

### 3.4. Launching

At this stage, all facilities, including production and marketing, have been prepared. Companies entering this stage must have developed pricing strategies and expected profit margins. During this stage, companies conduct prior marketing research, particularly regarding the needs, desires, tastes, and satisfaction of their target consumers.

## 4. Discussion

This product development stage is carried out by implementing 4 processes which include the planning, design, manufacturing and launching stages as the results of research related to the development of new products should indeed go through these four stages so as to produce a product that is suitable for marketing [7].

The trial and analysis phase was conducted to determine the quality of the product development results for this business. Data on the quality of the developed products was collected using an assessment questionnaire completed by three fashion experts. The attributes used in the product assessment included intrinsic, marketing, functional, and social-communicative attributes. The results of the study found that all four attributes received good and very good ratings, which is in line with previous research that the attributes that most contribute to positive perceptions of clothing are environmental benefits and emotional aspects, such as the experiential or social features of the model, the ability to meet fashion needs, and increased product satisfaction. Negative perceptions were largely driven by a lack of trust in the service provider and perceived barriers to ease of use, such as a lack of accessibility to the product or the technical requirements that may be met [16]. In this study, no negative assessments were found of the product that had been developed, so the product is worthy of being marketed more widely.

The fairly good assessment from the assessor regarding the product being developed is also inseparable from the fairly good planning process related to the analysis of consumer needs, which is in line with the results of previous research that in fact, fashion retail suppliers are very driven by consumer demand and face many operational challenges that come from high uncertainty in demand and supply [17]. The results of this

study also support previous research that consumer aspirations, region-based versions, visible packaging, and product demonstration are important motivational factors for product adoption by low-income consumers. Consumer knowledge of the product category, branded product concentration, global brand availability, and the presence of traditional retail stores motivate companies to launch products for low-income consumers in emerging markets [18].

The results of this study also indicate that regular product development can increase consumer interest in the product, thereby increasing business unit revenue and ultimately generating income for the business unit. This is in line with previous research that found significant increases in profitability from both types of business skills training. However, the pathways to achieving these increases differed significantly between the two groups. The marketing group achieved greater profits by adopting a growth focus on higher sales, investing more in inventory and materials, and hiring more employees. The finance group achieved similar profit increases but through an efficiency focus on lower costs. Both groups demonstrated significantly higher adoption of business practices related to their respective training programs. Consistent with the growth focus, marketing/sales skills were significantly more beneficial for businesses run by entrepreneurs with less ex ante exposure to different market contexts. Conversely, and in line with the efficiency focus, more established businesses benefited more from finance/accounting skills [19].

The findings of this study also support previous research on the importance of developing creativity for business continuity, noting that challenges include limited production/financial resources and management skills. Incubation hub entrepreneurs are resourceful and use creativity for business continuity. These findings underscore the need for skills training and support for small-scale apparel manufacturing business owners [20]. Another study also revealed similar findings regarding the importance of product development in a fashion production process in a business unit, stating that the findings from respondents indicate that the production process is highly dependent on the quality and availability of raw materials. Further findings revealed that the fashion industry does indeed face various challenges, including limited access to finance, inadequate infrastructure, raw materials and accessories that are not easily available, and a shortage of skilled labor. Furthermore, the production of fashion goods and clothing accessories in the region can encourage economic independence that reduces dependence on imported goods. The findings of this study have practical implications for policymakers, industry stakeholders, and investors interested in utilizing the fashion industry for sustainability and economic revitalization. Based on these findings, several recommendations are proposed that are expected to contribute to economic sustainability and revitalization of the fashion industry and encourage sustainable development [21].

## 5. Conclusions

Based on the results of the research on fashion entrepreneurial product development, it can be concluded that,

The fashion entrepreneurial product development process consists of four stages: planning, design, manufacturing, and launching. Based on these stages, prototypes were produced in the form of fashion entrepreneurial products, including clothing and merchandise with distinctive motifs and symbols from Surabaya State University.

The quality of the developed fashion entrepreneurial products was internally tested by fashion experts. The average overall percentage from the three experts was 87.24%, indicating that the fashion entrepreneurial products had excellent qualities based on intrinsic, marketing, functional, and social-communicative aspects.

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