



Feasibility Analysis of “KAOSI” the Graphic Art T-shirt

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ABSTRACT

A business feasibility analysis is necessary to determine whether a business is viable and to enhance its quality and quantity. The analysis included (1) technical, (2) marketing, (3) management and organisational, and (4) financial. This study uses a business feasibility analysis to determine the viability of new MSME businesses named KAOSI. Based on the research conducted, it has been determined that the KAOSI is considered feasible because it meets the following criteria: (1) technical aspect, such as operating in a strategic location; (2) marketing aspect, such as having a unique selling proposition that is not currently held by any competing products; (3) financial aspect, KAOSI has a business NPV value of IDR 4,158,829.4, an IRR value of 40,9%, a PP value of 1.79 years, and a PI value of 1.98, which indicates that this business is financially feasible. However, in terms of management and organization, only the management aspect can be met by KAOSI, its organizational structure is deemed impractical due to its management's extensive responsibilities.

Keywords: KAOSI, Feasibility Study, Feasibility Analysis

ABSTRAK

Analisis kelayakan usaha perlu dilakukan untuk mengetahui layak tidaknya suatu usaha dan meningkatkan usaha tersebut dari segi kualitas dan kuantitas. Beberapa aspek yang dianalisis meliputi (1) teknis, (2) aspek pemasaran, (3) aspek manajemen dan organisasi, dan (4) aspek keuangan. Melalui analisis kelayakan usaha, penelitian ini berupaya untuk mengetahui kelayakan usaha UMKM baru dengan brand “KAOSI”. Berdasarkan penelitian yang dilakukan, diketahui bahwa usaha KAOSI dinilai layak dari faktor teknis dan finansial. Berdasarkan analisis kelayakan bisnis penelitian ini dengan menggunakan NPV, IRR, PP, dan PI, perusahaan memiliki nilai NPV bisnis sebesar Rp. 4.158.829,4, nilai IRR 40,9%, nilai PP 1,79 tahun, dan nilai PI 1,98, menunjukkan bahwa usaha ini layak secara finansial. Selain itu, KAOSI dinilai layak dari segi manajemen. Namun, karena banyaknya tanggung jawab dalam pengelolaannya, dianggap tidak praktis dalam hal struktur organisasi.

Kata Kunci: KAOSI, Studi Kelayakan, Analisis Kelayakan

1. Introduction

World Health Organization (2021) state since March 2020, the coronavirus (COVID-19) has been classified as a global pandemic. On March 2, 2020, Indonesia was listed as a country infected with the virus (Fauziyyah et al., 2021). The physical distance policy is implemented to prevent the spread of the virus (Joseph et al., 2018). One of the policies implemented by the government is working from home. Based on the results of a mental health survey conducted on 4,010 respondents (29% male and 71% female) for five years by the Indonesian Psychiatric Association (PDSKJI), it was revealed that 64.8% of respondents had psychological problems in the form of anxiety with a percentage of 64.8 %, depression 61.5%, and trauma 74.8% (CNN, 2021 and Perhimpunan Dokter Spesialis Kedokteran Jiwa Indonesia, 2021). Most of these psychological problems affect people between 17 and 29. One of the triggers is stress. Stress can occur due to unpredictable work schedules and breaks while working from home. Therefore, fast healing techniques are needed, and

art therapy is one technique that suits these needs (Burt, 2004; Gussak et al., 2015; and Robb, 2015). Art therapy helps patients regain their mental health by allowing them to express their emotions through painting. Graphic art is one type of artwork that can be created.

Art therapy utilizing T-shirt media is one of how mental healing is gaining commercial viability. This opportunity was seized by establishing a small to medium-sized business, KAOSI. KAOSI is a new and pioneering MSME that promotes mental health by applying art therapy to T-shirt media. Because KAOSI has no competitors, this can be a competitive advantage and a source of strength. Due to the novelty of this idea, further research is required to determine its viability. It is essential to conduct a business feasibility analysis to ensure its longevity.

A business feasibility study aims to determine the benefits of undertaking business activities or projects (Arnold et al., 2020). Moreover, according to Supriadi and Angga (2021), a business feasibility study is research conducted to determine whether a business concept is viable. A business concept is considered feasible if it generates greater benefits for all parties (stakeholders) than negative effects. A business feasibility study is defined by Rita et al. (2019) as an in-depth examination of a business or business-to-be to determine whether or not the business is viable. According to Khanza et al. (2021), a business feasibility study is an examination of a business project's failure. Therefore, the objective of this research is to conduct a business feasibility study on the KAOSI business to determine the viability of the ongoing operation.

A business feasibility analysis should be conducted to increase business quality and quantity and determine whether the proposed business can be launched. Feasibility analysis is conducted from various perspectives, including (1) technical aspects to determine the feasibility of facilities and customer convenience, (2) management and organizational aspects to determine the feasibility of work standards for leaders and employees, (3) marketing aspects to determine the feasibility of market acceptance of products, and (4) the financial aspect, which is the primary objective of a business, to determine the feasibility of a business. The business concept is what distinguishes this study's business feasibility analysis from those of other studies. Because KAOSI is a business founded on a concept that promotes mental health, the business's viability has never before been discussed.

2. Method

This study aimed to determine the business feasibility of KAOSI. The study is qualitative and evaluative in nature. Observations centered on observing, deciphering, and forming intentional interpretations of behaviors, actions, and events in order to provide a comprehensive picture of the topic under study. The company's projected data, expenses, and revenues are used to analyze the financial component. Utilized quantitative data, specifically financial data. When assessing the viability of a business, it is necessary to consider the technical, marketing, and financial aspects that can be used to evaluate the business. In the financial feasibility analysis section, the input and outflow of company funds, as well as the calculation of Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period (PP), and Profitability Index (PI), are used to assess the project's viability. See Figure 1 for the Research Methodology Flowchart.

3. Result and Discussion

3.1 Business Feasibility Analysis of Technical Aspects

One element that contributes to a business's success is its location. The location of KAOSI is accessible because of its placement on the main road and close to the city centre, sub-district office, village hall, and tourist attractions. It is considered practical because the location meets consumer demands for mileage, travel time, cost, convenience, reliability, and quality of products and services, so it is feasible. In addition, the location of the business is close to public spaces such as markets, making it easier to access marketing and purchasing.

3.2 Business Feasibility Analysis of Marketing Aspects

Marketing is a social and managerial process by which individuals engage in activities to satisfy their needs and aspirations by producing and exchanging goods of mutual value. The following factors comprise the marketing component of a company's feasibility analysis.

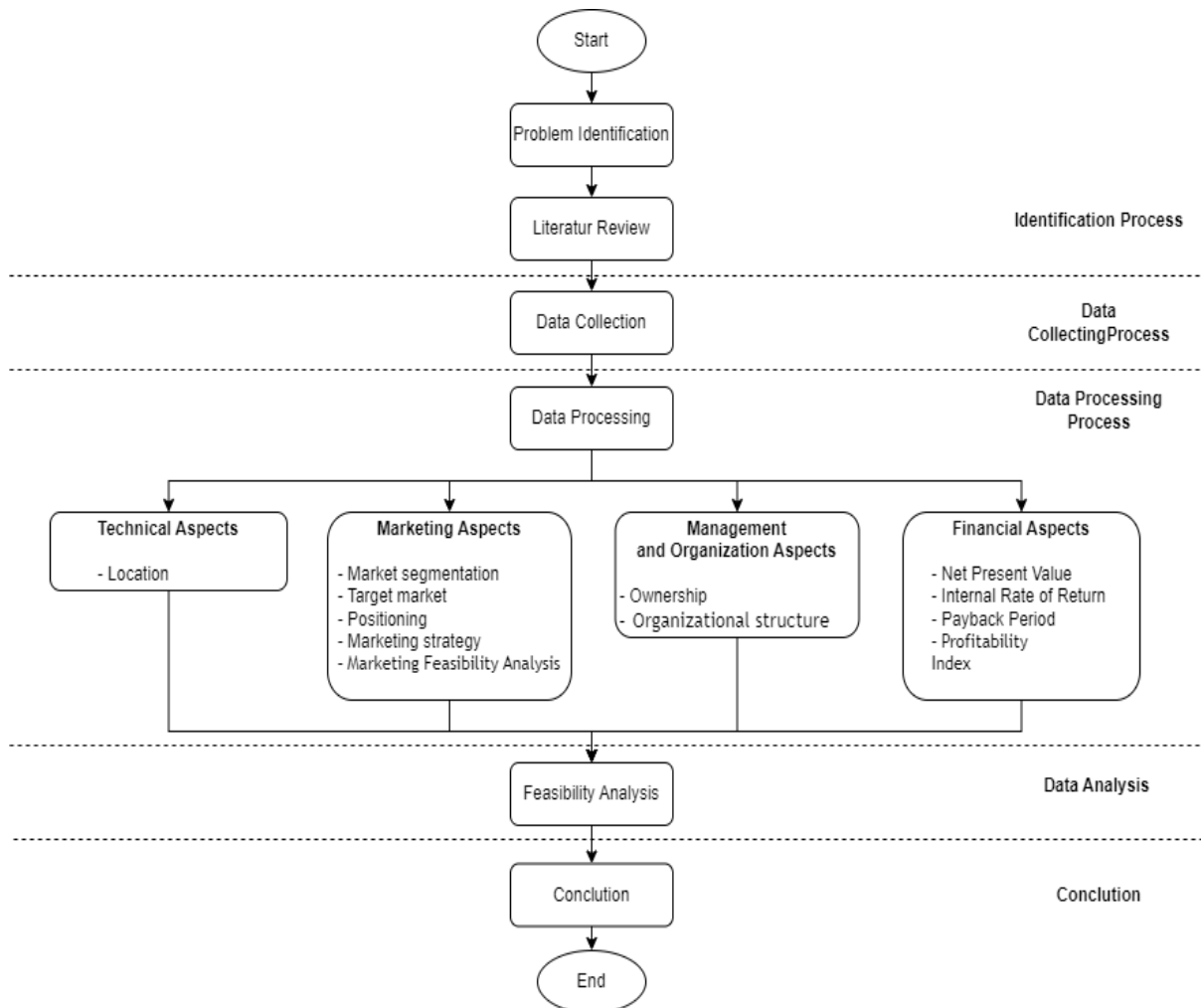


Figure 1. Flowchart Research Methodology

3.2.1 Market segmentation

Mark The Art Shirt Market (KAOSI) is divided based on: (1) time segmentation, especially during the PPKM period, (2) price segmentation with affordable prices for all circles, (3) demographic segmentation with a choice of neutral t-shirt colors, and (4) socio-cultural segmentation with designs that follow current trends, especially the influence of Korean trends and vintage trends.

3.2.2 Target market

Ages 15 to 29 years are KAOSI's target market, which consists of people and workers prone to stress. This group is targeted because it consists of individuals more vulnerable to mental health decline (stress) caused by their work or responsibilities and the ongoing pandemic.

3.2.3 Positioning

Today, KAOSI markets itself as a graphic art t-shirt seller that fulfills customers' clothing demands and helps them relieve stress through creative expression.

3.2.4 Marketing strategy

The marketing method involves providing online shopping services through the Shopee platform and indirectly disseminating content through social media platforms such as Instagram, Tiktok, Facebook, and Whatsapp. In addition, making packaging as attractive as possible is another strategy.

3.2.5 Marketing Feasibility Analysis

Based on the SWOT analysis, it is determined that KAOSI's business is feasible to market. The SWOT analysis states that KAOSI has a unique selling proposition that competitors' products do not currently have and does not hinder the creation of competitors' products. The existence of social media and online markets that have a solid ability to spread product knowledge and information packaged in original ideas makes KAOSI's presence able to continue to exist in the market.

3.3 Business Feasibility Analysis of Management and Organization Aspects

3.3.1 Ownership

Ownership is under the direction of two people who are the drivers of the business concept.

3.3.2 Organizational structure

An essential component in managing and driving a business is management. The two movers who carry out the management of "KAOSI" each have responsibilities. Manager 1 is responsible for making important decisions, supervising subordinates to ensure company goals are met and making decisions about operational tasks. Manager 2 is responsible for managing the design and implementation of marketing initiatives, planning, recording, and financial administration. The two KAOSI leaders supervise, monitor, and evaluate the business. This dual role occurs because members of the company "KAOSI," who are students, learn entrepreneurship and are also in the early stages of business development. There is no clear and straightforward organizational structure according to the results of the management and organizational components of the "KAOSI" company. In addition to managing the leading company, "KAOSI" acts as an employee who makes and markets goods. Therefore, it is feasible from a managerial perspective but not an organizational one.

3.4 Business Feasibility Analysis of Financial Aspects

3.4.1 Net Present Value (NPV)

The value of a business's profits is calculated using a Net Present Value analysis. The Net Present Value is calculated using the total value of the most recent business period (Burksaitiene, 2009).

Table 1. Net Cashflow of KAOSI Discount Factor 10%

Description	Period			
	0	1	2	3
Cash Flow	-Rp 4.250.000	Rp 3.582.100	Rp 3.930.600	Rp 2.524.500
Discount Factor (10%)	1	0,9091	0,8264	0,7513
Present Value	-Rp 4.250.000	Rp 3.256.487,11	Rp 3.255.685,44	Rp 1.896.656,85
Cumulative	-Rp 4.250.000	-Rp 993.512,89	Rp 2.262.172,55	Rp 4.158.829,4

Here is an illustration of how to determine the PV value for period three and the NPV, which equals the value of the most recent cumulative.

$$PV = Net\ Cash\ Flow \times Discount\ Factor \tag{1}$$

Equation (1) is used to calculate the PV Value. Here is the illustration to calculate it.

$$\begin{aligned} PV &= Net\ Cash\ Flow \times Discount\ Factor \\ PV &= Rp\ 2.524.500 \times 0,7513 \\ PV &= Rp\ 1.896.656,85 \end{aligned}$$

$$Cum = Present\ Value_n + Present\ Value_{n+1} \tag{2}$$

Formula (2) is used to calculate the Cumulative; here is the illustration.

$$\begin{aligned} Cum &= Present\ Value_n + Present\ Value_{n+1} \\ Cum &= Rp\ 2.262.172,55 + Rp\ 1.896.656,85 \\ Cum &= Rp\ 4.158.829,4 \end{aligned}$$

The NPV value of "KAOSI" is Rp. 4,158,829.4, as can be seen from the table above. This amount reflects the profit made by "KAOSI" through the end of production. Since the "KAOSI" firm has an NPV value greater than 0, it is possible to determine whether it is viable.

3.4.2 Internal Rate of Return (IRR)

If a business's IRR value is higher than the current interest rate, it can be said that the venture is viable (Bousdekis et al., 2020). This research established the interval profit rate from investments made by contrasting two interest rates, 10%, and 14%. In contrast to the bank's interest rate of 14%, which is applied by the "KAOSI" company, 10% interest is charged by the firm.

Table 2. Net Cashflow of KAOSI Discount Factor 14%

Description	Period			
	0	1	2	3
Cash Flow	-Rp 4.250.000	Rp 3.582.100	Rp 3.930.600	Rp 2.524.500
Discount Factor (14%)	1	0,8772	0,7695	0,675
Present Value	-Rp 4.250.000	Rp 3.142.218,12	Rp 3.024.596,7	Rp 1.704.037,5
Cumulative	-Rp 4.250.000	-Rp 1.107.781.88	Rp 1.916.814,82	Rp 3.620.852,32

$$IRR = i_1 + \frac{NPV_1}{NPV_1 - NPV_2} \times (i_2 - i_1) \tag{3}$$

From table 1 and table 2, the IRR calculation can be done using the formula (3) as follows:

$$IRR = i_1 + \frac{NPV_1}{NPV_1 - NPV_2} \times (i_2 - i_1)$$

$$IRR = 10 + \frac{Rp\ 4.158.829,4}{Rp\ 4.158.829,4 - Rp\ 3.620.852,32} \times (14 - 10)$$

$$IRR = 40.92$$

$$IRR = 40.9\%$$

Description:

- i_1 = Discount factor 10%
- i_2 = Discount factor 14%
- NPV_1 = NPV 10%
- NPV_2 = NPV 14%

The "KAOSI" company's IRR value is 40.9%. This figure suggests that the "KAOSI" business is viable because the IRR value is greater than 10%.

3.4.3 Payback Period (PP)

The Payback Period value shows the time it takes for a business to return the investment amount issued at the beginning of the business period (Abuk & Rumbino, 2020). The payback period value can be obtained from the following calculation:

$$PP = t_1 + (t_2 - t_1) \times \left(\frac{-CUM_1}{CUM_2 + CUM_1} \right) \tag{4}$$

Formula (4) is used to calculate the Payback Period. Here is the illustration.

$$PP = t_1 + (t_2 - t_1) \times \left(\frac{-CUM_1}{CUM_2 + CUM_1} \right)$$

$$PP = 1 + (2 - 1) \times \left(\frac{Rp\ 993.512,89}{Rp\ 2.254.734,95 - Rp\ 993.512,89} \right)$$

$$PP = 1,79$$

Description:

$$t_1 = \text{The last period cumulative is negative}$$

$$t_2 = \text{The first period cumulative is positive}$$

$$CUM_1 = \text{The last Cumulative is negative}$$

$$CUM_1 = \text{The first Cumulative is positive}$$

According to the calculations, the "KAOSI" company Payback Period is 1.79 years. As a result, the business can see a return on investment after one month and twenty-five days of operation.

3.4.4 Profitability Index

The future net cash flow value and the current investment value are compared to determine the profitability index. It is considered feasible if a company's Profitability Index score exceeds 1. The calculations below can be used to determine the Profitability Index's results:

$$PI = \frac{\sum \text{Present Value}}{\text{Invest}} \quad (5)$$

Formula (5) is used to calculate the Profitability Index; here is the illustration.

$$PI = \frac{\sum \text{Present Value}}{\text{Invest}}$$

$$PI = \frac{(Rp\ 3.256.487,11 + Rp\ 3.255.685,44 + Rp\ 1.896.656,85)}{Rp\ 4.250.000}$$

$$PI = \frac{Rp\ 8.408.829,4}{Rp\ 4.250.000}$$

$$PI = 1,98$$

The "KAOSI" company's Profitability Index value is 1.98. Because the PI value is greater than 1, the "KAOSI" business is therefore deemed feasible.

4 Conclusion

In order to determine whether or not the KAOSI business is feasible, this study performs a business feasibility analysis. The following are some of the aspects examined: (1) technical; (2) marketing; (3) management and organizational; and (4) financial. The study's findings show that KAOSI is considered feasible because it meets the following criteria: (1) technical aspect, such as operating in a strategic location; (2) marketing aspect, such as having a unique selling proposition that is not currently held by any competing products; (3) financial aspect, as shown by the calculation of the NPV value of Rp. 4,158,829.4 and IRR value of 40.9 percent. Moreover, because the PI of KAOSI is greater than 1, namely 1.98, the PI calculation indicates that KAOSI is also feasible. However, in terms of management and organization, only the management aspect can be met by KAOSI, as it is run by a small number of employees who hold multiple positions, resulting in an unclear organizational structure. Nonetheless, the division of labor is equitable, and each worker is responsible for their assigned tasks. So that KAOSI can operate efficiently. Based on the feasibility analysis of the KAOSI business, it can be concluded that the business is viable and has the potential to grow, given the absence of comparable competitors.

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