



# Trowulan Tourism Market (Pawitra): Transformation and the Use of Metaverse Technology to Strengthen Digital Experience

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**Abstract.** This study aims to analyze (1) what strategies can be implemented to re-run Trowulan People's Market?; (2) what is the strategy for transforming the Trowulan People's Market into the Trowulan Tourism Market (*Pawitra*)?; (3) how is the innovation and use of Metaverse technology in the Trowulan Tourism Market (*Pawitra*)?. The research method used was the phenomenological qualitative method. Qualitative data were obtained from in-depth interviews at the Mojokerto Regency Industry and Trade Service (*Disperindag*), as the Office that manages the market, supplemented by a triangulation method with Trowulan market stakeholders. The results of the study show that (1) the strategy adopted to re-run the Trowulan People's Market is to transform and innovate to become the Trowulan Tourism Market (*Pawitra*); (2) the strategy of transforming the Trowulan People's Market into the Trowulan Tourism Market (*Pawitra*) involves collaboration and synergy between the government, local communities, and universities; and (3) the Metaverse technology in *Pawitra* gives color to the digital experience which gives a touch of high tech and high touch.

**Keywords:** *Pawitra* · Metaverse · transformation

## 1 Introduction

Mojokerto Regency is a Regency located in the heart of East Java. This district has a fairly high Gross Regional Domestic Product (GRDP) value; of the 29 regencies in East Java Province, Mojokerto Regency is ranked sixth [1]. Mojokerto Regency is known as a district with high industrial and trade activity, which is proven by the Ngoro Industrial Area's existence as one of Indonesia's largest industrial areas. In addition to the Industrial estates, which encourage economic movement in terms of large and medium business scales, the economy of Mojokerto Regency is also driven by MSMEs which drive the wheels of the economy of Mojokerto Regency. The Mojokerto Regency Disperindag Strategic Plan for 2021–2026 as a Regional Apparatus Strategic Plan was prepared in accordance with the main tasks and functions of the Industry and Trade Service and guided by the Mojokerto Regency Regional Medium Term Development Plan for 2019–2024, Strategic Plan of the Ministry of Industry and Ministry of Trade for 2021–2026, and

Strategic Plan for the Office of Industry and Trade of East Java Province for 2014–2019 [1].

The Mojokerto Regency Disperindag has main tasks and functions related to industrial development, SMEs, IKM, and market management. Based on the Mojokerto Regency Disperindag Strategic Plan, challenges and opportunities can be identified for the development of Mojokerto Regency Industry Service services, namely (1) significant economic growth with the development of industrialization in Mojokerto Regency; (2) the rise of trading in traditional markets and modern markets, as well as trade/ wholesale centers, spread across Mojokerto Regency; (3) the commitment of the Regional Government to improve the people's economy; (4) people's tendency to go on culinary tours; (5) positive response from the community and the business world to local government policies in the business world; (6) strengthening regional superior commodity industries; and (7) the availability of adequate regulations in development in the field of Industry and Trade. However, problems and strategic issues exist for the Mojokerto District Office of Industry and Trade, namely, less competitive trading performance due to the lack of support for standardized trading facilities. With regard to trading places, the Mojokerto Regency Office of Industry and Trade has 24 managed markets, namely 15 self-help markets and 9 markets belonging to the Department of Industry and Trade [1].

The market has an important role for the Government, Producers, and Consumers. However, not all markets can function according to their function. Many markets are empty of visitors, and only a few want to sell there. This is certainly not in accordance with the objectives of the development of markets by the government. The Trowulan People's Market, established in 2019, is in the form of building Jalan Raya Bypass Trowulan, occupying the land of the former Trowulan Terminal, looks striking with the Majapahitan-style fence and the steel construction of the building; the roof with the pyramid concept. At the beginning of its establishment, 7 (seven) sellers traded in food and beverage stalls. Of the seven sellers, 4 (four) people, or 57% had ID cards in Trowulan District, and there were also 4 (four) lesehan sellers, of which 2 (two) people, or 50%, came from Trowulan District. There are 100 stalls prepared for the wet market, but a single trader has yet to be there. The Trowulan People's Market is expected to become one of the icons that can drive the people's economy. The regional government has tried various solutions to overcome the problems, such as the "other world" hypothesis, which is the cause of the stagnation of the economy there; a bull event has been carried out by the Gunung Jati Warriors group to purify the market, including in the form of a cultural procession, planting tanjong and mojo trees, sprinkling water taken from the Jolotundo Trawas water source and the Pakis Trowulan Village water source, backfilling land taken from 7 market lands in the Mojokerto Regency area, and trying to activate and revive the market by encouraging traders to sell and organize many activity events around the market. The market is quiet, making the Regional Government bear fixed costs for maintaining assets and labor costs as a form of responsibility. The Regional Government must find solutions for how to reuse assets that have been neglected for so long.

In general, Trowulan is one of the guardian gates of this nation's noble heritage, which needs to be maintained. Trowulan and its surroundings offer many exciting tourist

destinations about parts of Indonesian histories, such as Brahu and Gentong Temples, Wringin Lawang, Sleeping Buddha Statue, Majapahit Museum, Tikus Temple, and so on, which offer a million stories of the pride of Nusantara.

On the other hand, it was observed that the Trowulan Market, which is located on a bypass road, certainly has national potential, which of course, also needs to pay attention to the new habitual patterns of post-pandemic society, where apart from being accustomed to technological developments, the existence of humanism is also important. Therefore, from the problems and SWOT analysis that has been done, in this study, an analysis will be carried out about (1) what strategies can be implemented to re-run Trowulan People's Market?; (2) what is the strategy for transforming the Trowulan People's Market into the Trowulan Tourism Market (Pawitra)?; and (3) how is the innovation and use of Metaverse technology in the Trowulan Tourism Market (Pawitra)?

## **2 Literature Review**

### **2.1 Strategy**

Strategy can be interpreted as an individual or group effort to create a scheme to achieve the intended target. Strategy is an art for individuals or groups to utilize their capabilities and resources to achieve targets through procedures considered effective and efficient in achieving the expected goals. Strategy can also be interpreted as an action to adapt to all reactions or environmental situations, whether it is a situation that is expected or unforeseen. According to Marrus [2], strategy refers to a process for someone to plan that has a function to help focus and achieve the expected results. Broadly speaking, strategy has almost the same meaning, namely as one of the means that can be used to achieve a goal.

### **2.2 Transformation Strategy**

Transformation is one of the strategies that can be carried out to achieve the intended target. The right transformation strategy is needed to achieve business goals more quickly. One form of transformation that can be done is digital transformation. Fields that can be applied to digital transformation are marketing, operational activities, and various other fields. Today's companies are starting to prioritize digital transformation in order to keep up with the times. Changing business processes from conventional to digital methods helps businesses to stay relevant to market trends. However, implementing digital transformation certainly requires the right concepts and strategies so that business goals can be successfully achieved. Digital transformation means a concept or idea regarding a company's steps in implementing new technology and a more modern business model. A digital transformation strategy is a series of business plans to grow and adapt to the digital economy. Implementing digital transformation will make companies remain competitive amid market changes. Changing customer habits due to the progress of time is a challenge for companies to carry out digital transformation. Moreover, companies have to face more advanced competitors because of the use of technology in their field. Companies must innovate, change their operational business processes, and

leverage technology to carry out digital transformation strategies. A digital transformation strategy must involve several important components: innovation, collaboration, and infrastructure modernization [3].

### 2.3 Metaverse Technology

Among various technologies, the Metaverse is very new and promising. The Metaverse consists of two words, meta (beyond) and verse (the universe), signifying beyond the universe, beyond the life we knew before. Meta CEO Mark Zuckerberg calls this the “new realm” we will enter. The Metaverse is a building, an ample space formed by technology where users can be called “citizens,” who gather, communicate, and interact in a virtual world. In the Metaverse, human users can interact even with autonomous NPCs and holograms. NPC is a “nonplayable character” or “nonplayer character.” This term is borrowed from video games, referring to characters controlled by the computer rather than by the player. NPCs can often direct and improve the course of the game by providing clues or assistance to players [4]. Non-human characters are “only” the result of coding.

The Metaverse combines the everyday “real” world and the digital environment. More broadly, the Metaverse is a virtual space where people worldwide can gather and communicate through virtual and augmented reality technology. Augmented reality integrates digital information with the user’s environment in real-time, while virtual reality creates an entirely artificial 3D environment. Augmented reality technology uses the existing environment in the real world, then adds new information [5].

### 2.4 Digital Experience

Digital experience is a new focus in increasing customer satisfaction and creating customer loyalty. In the new normal era, companies are required to be more innovative in utilizing digital technology to create new services and provide a better experience for customers. Data shows an increase in mobile phone users worldwide by up to 70% and laptops by 47% during the first half of 2020 compared to the previous year. An increase in device use has also occurred in Indonesia during the pandemic. Companies are forced to go digital and serve their customers in a new normal way, and digital technology often becomes the backbone. In today’s digital era, building a technology-based customer experience cannot be avoided because the behavior of users in acquiring and retaining a product today is always in contact with the internet [6].

In this era, information can be easily accessed, and customers can actively seek knowledge about a product through social media or online recommendations, so companies must strengthen digital information channels such as social media accounts, websites, and company-owned applications to make them easily accessible. In addition, customers are also quite independent in managing themselves, starting from purchasing, paying, and repairing the services ordered. Customers in the digital era like simple things in getting products, feel they are treated personally by digital producers, and get fast after-sales service responses from the producers. One of the ways companies can answer this is by providing applications that are easily accessible to customers where all their needs to get services can be fulfilled. Digital experience can be used to build

customer experience. Besides that, a successful customer experience built digitally can reduce churn (unsubscribe) and keep customers coming back to buy products [7].

### 3 Research Method

This research focuses on strategy transformation, particularly on market management by the Mojokerto Regency Disperindag, which seeks to revive a market that has been closed for some time. This research applied qualitative method research, complemented by descriptive qualitative research. Qualitative descriptive research, where they know the position at the time of data collection in the field and becomes the data interpreter [8], to analyze this topic through the experience, opinions, thoughts, and feelings of the Mojokerto District Office of Industry and Trade as market manager.

The research method used is the phenomenological qualitative method. Qualitative data were obtained from in-depth interviews with the Mojokerto District Office of Industry and Trade as the market manager, complemented by the triangulation method with the Trowulan market stakeholders. The sampling technique used in this research is purposive sampling, a sampling technique from data sources with specific considerations [9].

Data analysis techniques for qualitative methods used (1) data reduction, data collected from the field from in-depth interview results and observation, recorded in detail and thoroughly, then summarized, selected key points, focused on the important things, and sought the theme and the pattern. Afterward, (2) display data after the data were reduced; the next step was to present the data. The presentation was done in a brief description, making the chart, the relationship between categories, flowchart, and using narrative text. Moreover, the last step was (3) conclusion drawing/verification, which is making conclusions and verification [9].

### 4 Results and Discussion

From the results of the research that has been done, a summary of the results of the SWOT analysis of the Trowulan People's Market (Traditional) can be formulated as follows (Table 1):

From the results of the interviews and the formulation in the form of a SWOT Analysis, the strategy that can be implemented to re-run the Trowulan People's Market (Traditional) is to innovate, which combines the concepts of market and tourism to become a TOURISM MARKET or called PAWITRA, which makes quite fundamental changes to Trowulan People's Market (Traditional) strategy. Pawitra means something pure and unsullied, a spirit that brings change and positively impacts society. This change in strategy requires collaboration and synergy between the government, the surrounding community (Islamic boarding schools, leather artisans, and small traders), tourists, and university support. With this collaboration and synergy, each other will seek to transfer knowledge to achieve excellence and competitiveness in the industrial cluster [10]. Furthermore, collaboration to achieve this synergy requires mutual trust, involvement, and a willingness to share [11,12].

**Table 1.** Summary of SWOT Analysis Results of the Trowulan People's Market (Traditional)

Strength	<ul style="list-style-type: none"> <li>• Having reliable experience and capability in developing IKM, UKM, and markets.</li> <li>• The rise of trade in traditional market centers in Mojokerto Regency.</li> <li>• Located on a strategic road that connects cities/regencies.</li> </ul>
Weakness	<ul style="list-style-type: none"> <li>• Performance in terms of producing APD is still below the predetermined target.</li> <li>• Various attempts made to make the market crowded failed.</li> <li>• The market becomes a cost center because of the fixed costs incurred for the market that must be incurred every month.</li> </ul>
Opportunity	<ul style="list-style-type: none"> <li>• There is an opportunity to obtain matching fund grants due to collaborative partnerships between the government and Higher Education Personnel for the proposed innovations.</li> <li>• The environment around many interesting tourist destinations</li> <li>• There are neighborhoods such as Islamic boarding schools, various IKM and UKM that are ready to support.</li> </ul>
Threat	<ul style="list-style-type: none"> <li>• Interest in shopping for the people of Mojokerto Regency at Trowulan People's Market (Traditional) is very low because the location is far from residential areas.</li> <li>• The traders, one by one, leave the Trowulan People's (Traditional) Market because there are no buyers.</li> </ul>

The strategy for transforming the Trowulan People's Market (Traditional) into the Trowulan Tourism Market (Pawitra) is carried out through the following steps: (1) Conducting potential mapping; (2) Designing a business model; (4) Making a master plan modeling and mentoring; and (5) Disseminating the master plan and preparation for implementation.

The innovation made to transform the Trowulan Tourism Market (Pawitra) is through attention to new patterns of habits that have been embedded in society since the COVID-19 pandemic until now, where the effects of the digitalization system have almost dominated all sectors of life. On the other hand, digital technology also remains attached to social beings who still miss the atmosphere of meeting each other. This has become one of the cornerstones of innovation in the form of a new shopping experience that will be created at the Trowulan Tourism Market in Mojokerto Regency, namely changing the concept from the market as just a means to fulfill daily needs into a tourism market that offers a new shopping experience that provides a different experience to consumers, by combining interior and exterior temple-style concepts with the application of transaction technology through Metaverse technology, particularly virtual reality which builds a different experience for consumers.

## 5 Conclusion

From the explanation above, the results show that (1) the strategy undertaken to re-run the Trowulan People's Market (Traditional) is to transform and innovate into the Trowulan Tourism Market (Pawitra); where (2) the strategy of transforming the Trowulan People's Market into the Trowulan Tourism Market (Pawitra) involves collaboration and synergy with the government, local communities, and universities; and paying attention to new habit patterns including adaptation to digital technology and self-existence so that (3) Metaverse technology is also given in Pawitra, which is intended to give color to a digital experience that gives a touch of high tech and high touch.

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