Analysis of Competency Improvement Students of SMK Negeri 1 Surakarta through Tukuya.id Marketplace: A Case Study of B2B Model Implementation in Teaching Factory

Happy Martama¹, Surya Jatmika²

¹,² Universitas Muhammadiyah Surakarta, Indonesia

Tukuya.id Marketplace is a teaching factory innovation, specifically a marketplace that implements a business-to-business (B2B) interaction model at SMK Negeri 1 Surakarta. This marketplace is a bridge between MSMEs, especially in the city of Surakarta. The conceptualization of Tukuya.id aimed to accommodate all the expertise programs in the school and foster collaboration among apprentice students from various expertise programs. This study aims to describe the tukuya.id marketplace as a means of increasing competence among students at SMK Negeri 1 Surakarta. This research uses case study research with a qualitative approach. The subjects of this research are educators who are pioneers and students who intern at Tukuya.id. The data was collected using semi-structured interviews. The validity of the data in this study is tested using the source triangulation method and the interactive model of Miles, Huberman, and Saldana is used for data analysis. The results of this study indicate an increase in vocational skills for students in various fields and cognitive improvements such as critical thinking and problem-solving skills.

Keywords: Marketplace, B2B, MSME, Vocational School, Skills
INTRODUCTION

The development of online transactions in Indonesia has increased rapidly, it can be seen from the record in 2019 of Rs 205.5 trillion, which increased in 2020 to Rs 266.3 trillion (Ginting, Chandra, Miran, & Yusriadi, 2023). According to E-Commerce Statistics (2022), 20.64 percent of Indonesian entrepreneurs market their businesses and/or make sales or purchases through marketplaces. The marketplace itself is a platform where third-party companies offer services or commodities that enable transactions between users, in particular buyers and sellers. (Kafkas, Perdaç, & Aydın, 2021). Indonesia, based on the release of data from the International Classification of Diseases (ICD), shows the most substantial market expansion, which marks its superiority in Southeast Asia. Up to 60 percent of online purchases are made and processed through marketplace platforms like Tokopedia, Shopee, and Lazada. (Fitriyana, Nuryani, Rosyati, & Gusvia, 2021)

(Pradana, 2015) explains that the marketplace has several types of business interaction models including Business to Business (B2C), Business to Business (B2B). B2C business model is a process of selling goods and services directly between a businessman or entrepreneur to consumers, where consumers are the last party to use the product or service (Asipi & Duraković, 2020). Not only goods or services, but this Business to Consumer model is also widely used by universities in the form of campus websites, with topics such as registration procedures, academic administration, and academic activities promoted on each page of the campus website (Fikri, 2019).

(Pidada, 2019) explains that Business to Business (B2B) is a type of business model that markets products or services from a business, agency, or government to be sold to businesspeople, agencies, or governments. This business model is one of the fastest-growing technology adoption domains of the Business to Business (B2B) model. According to (Ocloo, Xuhua, Akaba, Shi, & Worwui-Brown, 2020), cited from the 2015 UNCTAD report, the B2B marketplace market is growing exponentially in high-income countries such as the United States, United Kingdom, China, Singapore, and Japan. This is because these countries apply the Business to Business (B2B) business model with the adoption of good internet utilization for Small and Medium Enterprises (SMEs). Not only in high-income countries, but Thailand, which is a developing country, also feels the same way. According to the Thai Electronic Transaction Development Agency, the development of the internet and technological advances in smartphones have had an impact on the rapid growth of B2B E-Commerce in Thailand. The rapid development is seen in the food and service sector, which contributes as much as 31%, from the industrial and manufacturing sectors as much as 16%, and the retail and wholesale sectors as much as 15% (S. O. Putri, Yahya, Attahirah, Nabilasari, & Tamaela, 2023). Companies in Indonesia that implement the Business to Business (B2B) model, such as Anyconnect, Bizzy, and Ralali, generally focus on the world of industry, business, and offices (Sasana Digital, 2023).

According to the ASEAN Investment Report reported by (Databoks.katadata, 2022), Indonesia ranks the highest in terms of the number of Micro, Small, and Medium Enterprises (MSMEs) among all ASEAN countries. The survey shows that there are approximately 65.46 million MSME units in Indonesia in 2021. Based on data from the Indonesian Ministry of Cooperatives and MSMEs reported by (UKMINDONESIA.ID, 2023), the province with the highest number of MSMEs is West Java, followed by Central Java and East Java. The largest number of MSMEs in Central Java Province is Surakarta City, with 17,965 MSMEs (Tengah, 2023).

The number of MSMEs can be used as an alternative choice for vocational schools to partner with. According to (Kuat, 2018), Vocational High Schools (SMK) are vocational education institutions that focus on practical expertise and are designed to provide skills to make students professional and skilled in a particular field. In order to make students professional and skilled, based on the attachment of Permendiknas No. 19/2007, schools must form alliances with affiliated entities such as governmental, non-governmental organizations, companies, or industrial sectors (Yalianto & Sutrisno, 2015). According to (Suryadi, 2022), vocational high school partners in the Business and Industrial Sectors (DUDI) do not always have to be large companies but can also collaborate with micro, small, and medium enterprises (MSMEs). In this case, schools that build cooperation with the Business and Industrial Sectors (DUDI) can provide many benefits, especially in terms of resource development. For example, students can use industrial facilities, get guidance and consultation through training to improve their skills (Ixtiarto, 2016).

Surakarta City has 49 vocational high schools, including public and private schools. The earliest established vocational high school, which has been accredited A, namely SMK Negeri 1 Surakarta, a school that has been established since September 1,1949, is known as a vocational school based on the field of business and management with available expertise programs, namely Accounting and Financial Institutions (AKL), Office Management and Business Services (MPLB), and Online Business and Marketing (BDP) (Ningrum, Walyuni, & Totalia, 2019). To build a high-quality vocational high school, it is necessary to methodically and gradually build a strong and aligned relationship between schools and industry. This can be achieved through cooperative efforts such as collaborative research or internship programs with the parties involved in this collaborative link and match program, which are the government, the industrial sector, and vocational high schools (Cahyanti, Indriayu, & Sudarno, 2018).

(Gunawan, 2022) explains that vocational schools, which are components of the national education system, must be able to develop to improve the quality and results of education by preparing graduates to meet the needs of the business and entrepreneurial world, which can be realized through industry-based learning, and the program that is prioritized to achieve this vision is the Teaching Factory Development Program (TEFA), which has been included in Government Regulation (PP) No. 41 of 2015. Teaching Factory (TEFA) is a program that aims to improve the competence of educators and students, provide support in creating a quality educational environment in schools, produce industrial products in the school environment, manage school financial allocations in a balanced manner, provide creative space for student and teacher activities, and encourage the development of an entrepreneurial spirit in the school environment (Y. E. Putri, Nuraini, &
Styaningrum, 2019).

Teaching factory, a practical learning method that engages students in an authentic work environment, has become a fundamental aspect of the curriculum overhaul in vocational schools. However, few studies have really explored thoroughly the implementation of teaching factory in vocational schools and its impact on improving students’ competencies. This is evidenced in the large range of research years (2018–2023) in (Asriati, 2018) n mn n research, which discusses the development of a teaching factory learning model. (Rohmah, Sari, & Wulansari, 2019) discuss the learning preparation process in the teaching factory. Ambarsari discusses the effectiveness of the implementation of the teaching factory learning model to increase the entrepreneurial spirit of vocational students. (Abdullah, 2021) discusses how to improve student competence through the teaching-factory learning model in productive subjects. (Rudiatna, 2022) discusses strategies to improve student competence through the application of the new teaching factory in one competency only.

Looking at the results of several research projects over the years, little literature creates a deep understanding of how teaching factory can be adapted to meet the unique demands of each skill program in vocational schools. Therefore, this study aims to fill the existing knowledge gap by providing a more comprehensive picture of the implementation of teaching factory innovations in vocational schools, with a specific focus on the adaptability and relevance of teaching factory innovations to the diverse skill programs found in vocational schools.

Based on the results of observations, SMK Negeri 1 Surakarta has a teaching factory innovation, namely a marketplace, by implementing a business interaction model, which is Business to Business (B2B). The innovation is called Tukuya.id. Based on the results of initial interviews, it shows that tukuya.id is a bridge between MSMEs, especially in the city of Surakarta, so that the products or services of MSMEs can be integrated with the tukuya.id marketplace. The hope of Tukuya.id is to make it easier for MSME players to fulfill a product so that they can get it at a more affordable price. This is due to cuts in the distribution channel, so that the costs incurred in distribution are not too high and the price of goods does not increase dramatically.

Tukuya.id is conceptualized so that it can accommodate all expertise programs in the school, so that all expertise programs can collaborate with each other. Students who take part in the internship at Tukuya.id are taken from various expertise programs, and there are no requirements to have certain competencies or certain criteria. This is because the main focus of tukuya.id is to form the skills of students who are obtained when they have done internship practices. Students who intern at Tukuya.id do not have to run according to their fields, but students are given the opportunity to explore in other fields.

Based on the description above, the researcher is interested in conducting research to describe the tukuya.id marketplace as a means of increasing competence among students at SMK Negeri 1 Surakarta. The results of this study are expected to provide inspiration for vocational schools to design innovative and effective teaching factories to improve the competence of students in vocational schools.

**METHODS**

This research uses case study research with a qualitative approach, which is a type of research in which researchers look deeper into a particular phenomenon (case) in time and activities such as programs, events, processes, institutions, or social groups and collect detailed and comprehensive information by applying various data collection methods during the specified time period (Creswell & Poth, 2016). This research was conducted at the State Vocational High School 1 Surakarta and the research was conducted during August–September.

The subjects of this research are two educators in the informatics and financial accounting expertise programs who are pioneers as well as managers and mentors for students who intern at Tukuya.id. Three 12th grade students of SMK Negeri 1 Surakarta who have carried out internship practices at Tukuya.id for 3 months, which are divided into several work fields: finance, marketing, creative content, distribution, and customer service.

The data collection technique is through semi-structured interviews. In this interview method, the researcher prepares an interview guideline, after which the researcher will interview the interviewee based on the guidelines that have been made to be answered by the interviewee and record it to store information data. However, the researcher will ask more deeply if he feels that the interviewee’s answer is not sufficient (Atsniyah & Supradewi, 2021). This interview is intended to find information about what Tukuya.id is, the purpose and objectives of Tukuya.id, how it was established, the implementation of Tukuya.id's operational activities, and whether there is an increase in competence for students who have done internships at Tukuya.id.

Testing the validity of this research data using the source triangulation method, namely the researcher tests and checks the source of data from interviews that have been obtained from informants, then compares, finds, and explores the validity of information that has been obtained from informants (Alfansyur & Mariyani, 2020). The purpose of wetness testing in this study is that researchers will collect data in the form of information from interviews with informants regarding tukuya.id as a means of increasing vocational competence in students of SMK Negeri 1 Surakarta who have practiced internships at tukuya.id. After the information data is collected, the recording will be transcribed in the form of written text, and then triangulation will be carried out by comparing and finding the validity of the information obtained from the interview data.

This research uses an interactive model analysis developed by (Miles, Huberman, & Saldana, 2014): first, data collection from observations and interviews; the collected data is then condensed through the data selection process; after which the data is organized and put together into the data presentation stage because the purpose of this process is to answer research problems through data analysis, so it is very important to organize the preparation systematically; and lastly, the researcher draws conclusions based on the data collected during the research.
Internship practice activities at the Tukuya.id marketplace SMK Negeri 1 Surakarta

Tukuya.id is a marketplace established by SMK Negeri 1 Surakarta. Based on the results of interviews, the beginning of the establishment of Tukuya.id was because the school wanted to establish a teaching factory, but the deputy head of the curriculum collaborated with several existing educators to create a new innovative idea where the teaching factory unit could accommodate all departments in the school as a means of increasing expertise and competence. Therefore, a Tukuya.id marketplace was formed, which has its own uniqueness, which is rarely applied by other marketplaces, namely applying the Business to Business (B2B) model, with the aim of being a bridge between MSMEs, especially in Surakarta City, so that the products of MSMEs can be integrated with the Tukuya.id marketplace service. In this case, entrepreneurs can directly buy products from producers or other entrepreneurs so that costs are more affordable than through distributors, which can be ordered through the Tukuya.id website.

Based on the results of interviews with Tukuya.id pioneers, Tukuya.id in its operational activities is driven by educators of SMK Negeri 1 Surakarta, assisted by students who carry out internship practices. In its operational activities, Tukuya.id has several fields of work. The fields of work contained in Tukuya.id include finance, marketing, creative content, distribution, and customer service. Details of the job description in each field in Tukuya.id obtained from the interview results are described in the form of a flowchart below.

[Figure 1. About here]

In the field of finance, these activities are in accordance with the internship activities carried out by (Prastity, 2023) related to the finance field, consisting of calculating, inputting, recording financial data, and managing existing financial administration. The difference in this case is in the data being worked on, in Tukuya.id, it focuses on product sales data resulting from customer orders.

In the Marketing field, these activities are in accordance with the internship activities carried out by (KURNIA, 2016), the activities in the Marketing field are selling products to customers, creating marketing strategies for products sold, calculating, and monitoring the stock of products to be sold.

In the field of distribution, the activities are in accordance with the theory put forward by (Herawati, 2023), which is carried out by a person in the field of distribution (distributor), those are delivering goods from producers to the hands of customers, carrying out warehouse management so that products are immediately distributed to customers, and finding out the stock of products available in the warehouse in accordance with customer order records.

In the field of Creative Content, these activities are in accordance with those conveyed, the main activities of creative content are content creation on social media platforms used by agencies, making observations to learn new trends that will be applied to content, and promoting company products and services with creative ideas to increase sales.

Furthermore, in the field of Customer Service, this activity, according to (Mamun & Ningsih, 2021), is generally an activity that aims to provide service assistance to customers to fulfill their wants and needs. These activities are in accordance with the internship activities carried out by (Ningsih, 2022) as Customer Service, which include serving customers by providing solutions related to problems experienced by customers and ensuring that incoming goods matches the number of customer orders.

Based on the results of interviews with the pioneers and managers of Tukuya.id, when carrying out its daily operational activities, there are routine activities. Daily routine activities in Tukuya.id begin in the form of a briefing in the morning and an evaluation in the afternoon. The goal of the morning briefing is to reduce issues that may arise when tukuya.id is in operation as well as to give guidance regarding the duties that managers and apprentice students must perform so that they can comprehend and carry out their respective job descriptions properly. This morning briefing is also a step to execute the results of the evaluation in the afternoon yesterday, so that managers and apprentices can minimize obstacles and problems that have occurred before.

Vocational skills gained during an internship at Tukuya.id SMK Negeri 1 Surakarta

Students who intern at tukuya.id are very lucky, because based on data from interviews with students, they get some interpersonal skills that are not obtained during class. These interpersonal skills (soft skills) are very important in the world of work, which includes communication skills, listening skills, team problem solving, cross-cultural relationships, and customer service (Suranto & Rusdianti, 2018).

The first skill from the results of interviews obtained by apprentice students is Public Speaking skills. According to (Mandasari, Aminatun, Qurrota’ Akyuningrum, & Nuraziza, 2021), obtaining public speaking expertise requires a short time, it requires knowledge, skills, and experience through a process of habit or routine practice. This ability is obtained by students during practice because they communicate directly with customers every day, so this trains them on how to communicate with customers. Mastering public speaking skills is key to achieving success in a professional career, creating strategic tools to gain a competitive advantage, increase trust, and create a good reputation (Marinho, de Medeiros, Gama, & Teixeira, 2017).

Another skill is the use of numerical processing technology in general, which is Microsoft Excel. Microsoft Excel itself is a popular computer program that is used in an application that focuses on processing numbers created and distributed by Microsoft Corporation and has calculation and graphics creation features. (Rangkuti & Harahap, 2020). Because in tukuya.id every transaction has to be recorded in Excel, students finally get used to and experience the use of features in Excel itself, so this skill of using Excel is improved. According to information data from Burning Glass Technologies, the Labor Market Analysis Company reports that millions of job vacancies in its terms typically list mastering the use of Microsoft Excel (Lantushenko, Lipton, & Erkis, 2018).
Not only is it related to the development of knowledge skills, but students also experience improvements in cognitive skills. This is acquired from the occurrence of some problems that arise during the implementation of internship practices, for example, Critical Thinking and Problem Solving. Critical Thinking refers to the ability to sort and analyze information, evaluate the relevance of the data that has been collected, and then interpret it to solve a problem (Rodzalan & Saat, 2015).

Because in Tukuya.id this work is not monotonous and often problems arise, the student interns are tested to solve some problems. They learn from this, and their ability to solve problems and think critically is finally perfect. So, from this, new ideas emerge, which can make alternative options and new ways out so that the development of Tukuya.id can be more massive.

CONCLUSIONS

Tukuya.id is an innovation teaching factory at the level of vocational education in the form of a marketplace established by SMK State 1 Surakarta, which aims to bridge between UMKM in particular in the area of Surakarta. This research proves that Tukuya.id is a means of developing relevant skills and knowledge to suit its needs.

In order to run Tukuya.id, educators work with students who are interning for a variety of expertise competency programs offered at SMK Negeri 1 Surakarta. These practical activities are not small and vary depending on each field of work that exists in Tukuya.id. Students will usually be placed in the field of employment according to their program of expertise, but not dismissed. They may be transferred to the area of work to acquire new skills and abilities, in this case, they may be more interested in the work area that does not correspond to their program of expertise. In this field, students perform several tasks, such as collecting sales data from both websites and social media, conducting financial management, making inputs for all transactions, making payments, and handing over sales data to several partners of Tukuya.id. In both fields of marketing, participants learn to perform tasks like offering products directly to consumers, making effective and efficient marketing strategies, stock products, and displaying products to be marketed. Thirdly, in the field of Distribution, the trainees carry out tasks such as delivering products to the hands of customers as an intermediary of SMEs's products between Tukuya.id and customers, ensuring that the order data and the available product data are equal. The fourth is the field of Creative Content, usually the students perform tasks such as giving ideas for the development of Tukuya.id, actively browsing social media to find new information and trends and innovating promotional content about Tukuya.id. Last is the area of Customer Service, the trainees perform several tasks, including responding to customer needs and complaints online, printing order data that will be sent to the distribution team, ensuring order data with product availability data according to quantity, and providing alternative choices to customers if the ordered product is sold out.

In the course of the internship, the students gained a good and beneficial impression, those are, the improvement of professional skills such as knowledge and cognitive skills. As for the skills acquired, such as the ability of Public Speaking and the ability to use the numerical processing application (MS Excel), cognition skills are improved in problem solving and critical thinking.

Thus, it can be said that the establishment of Tukuya.id is not only a marketplace that can help the UMKM only, but also helps the students to acquire experience and skills that may not be acquired when learning in class, so that it helps the preparation of pupils’ careers in the world of work and helps students in facing the challenge of employment with the provision of skills that have been gained during the internship in Tukuya.id.

For the next research, it is recommended to use in-depth qualitative approaches such as observations, case studies, or structured interviews with some relevant parties, such as educators, students, and MSMEs owners who are partners with Tukuya.id. For example, when observations can monitor operational activities through live visits or online, they can be based on the analysis of creative content from social media and the website Tukuya.id. Do also surveys or interviews with the owners of MSMEs partners, Tukuya.id, they can dig information to the extent to which Tukuya.id helps them improve their exposure, sales, products, and other positive impacts.

ACKNOWLEDGEMENT

My gratitude goes to the team who helped this article reach out to readers. My gratitude also goes to the reader, hopefully this article will provide benefits and scientific contributions.

REFERENCES


Databoks.katadata. (2022). Indonesia Punya UMKM Terbanyak di ASEAN, Bagaimana Daya Saingnya?

ConflictofInterestStatement: Theauthorsdeclarethattheresearchwasconducted in the absence of any commercial or financial relationships that could be construed as a potential conflict ofinterest.

Copyright © 2024 Happy Martama, Surya Jatmika

This is anopen-accessarticledistributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.
LIST OF TABLE

1. Flowchart of the Tukuya.id work practice fields .......................................................... 79
2. Vocational skills acquired by students ........................................................................... 80
Figure 1/ Flowchart of the Tukuya.id work practice fields
Figure 2 / Vocational skills acquired by students