

# Mobile Application Development and Quality Assessment Models of MSMEs E-Catalog System in Tabanan Bali

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**Abstract**— *The tourism sector is the largest and strongest sector which is one of the main drivers of the world economy. The collaboration of tourism development strategies with supporting sectors such as food and beverage businesses, Micro, Small and Medium Enterprises (MSMEs), hotels and accommodation, transportation, creates a multiplier effect which then accelerates economic growth and job creation. An increase in MSME growth occurs in Tabanan Regency every year, but the growth of MSMEs in Tabanan Bali still faces obstacles in terms of digital strategy and management. The presence of innovation and technological breakthroughs to support MSMEs is highly favored to support the potential of the local craft industry in Tabanan Regency. This research presents the development of an Android-based MSMEs E-Catalog System in Tabanan Regency, Bali, namely the Talocraf Application (Tabanan Local Craft). The Research and Development (R&D) method was adopted as the development methodology. The usability quality of the application is assessed based on the System Usability Scale (SUS). It is hoped that this research can help MSMEs in Tabanan Regency face digital strategy and management problems and help tourists, both local and international, in finding MSMEs in Tabanan Regency. Apart from helping tourists in their search for MSME crafts, the Talocraf application is also expected to be able to help MSME players in marketing as well as a promotional medium for MSME owned.*

**Keywords**— *Android, MSMEs, Tabanan, Craft, Application, Geographic Information System.*

## I. INTRODUCTION

### A. Background

The tourism sector is the largest and strongest sector which is one of the main drivers of the world economy [1]. This is because the tourism sector not only provides substantial foreign exchange gains but also expands employment opportunities and serves as a tool to introduce the country's culture. The United Nations World Tourism Organization (UNWTO) states that the tourism sector plays an important role in contributing 9% of the world's total GDP [2]. The tourism sector is able to attract a large number of workers, this makes tourism one of the 11 employment sectors that absorb the most labor (Ibid).

According to the official website of the United Nations World Tourism Organization, Indonesia became the first country to sign the Framework Convention on Tourism Ethics, an important instrument created to ensure global tourism is fair, inclusive, transparent and works for everyone. Indonesia played

an important role in drafting the Convention as part of the Committee that turned the Global Tourism Code of Ethics into an instrument that is legally binding internationally [3]. This action signifies the government's strong commitment to upholding ethical principles in exploring tourism potential in Indonesia. In detail, Bank Indonesia states that the tourism sector is the most effective sector for boosting Indonesia's foreign exchange exchange. One of the reasons is because the resources needed to develop tourism are within the country [4].

As a world tourist destination, the opportunities for Micro, Small and Medium Enterprises (MSMEs) in Bali Province can be said to be very large. MSMEs in Bali actually already have a market, the market in the sense that they have come to Bali as a result of the advanced world of Bali tourism, however, MSMEs in Bali still need guidance, especially in terms of digital strategy and management as well as product marketing innovations. MSMEs marketing in Bali, especially Tabanan Regency, is still carried out conventionally/traditionally, so it needs to be facilitated in terms of digital strategy and management as well as product marketing innovations. The Balinese, apart from being farmers, also mostly have their own businesses in this modern era. Especially in Tabanan Regency which is known as a rice barn, but over time some of the rice fields they owned were sold and even shophouses were built for businesses. Micro, Small and Medium Enterprises (MSMEs) are now developing in Tabanan Regency.

The development of MSMEs in Tabanan Regency which consists of 10 sub-districts, with various types of businesses owned, including: culinary business, fashion business, agribusiness business, automotive business, convection business, offering business and so on. Where every year, MSMEs in Tabanan Regency experience changes [5]. Based on data from the Tabanan Regency Cooperatives and MSMEs Service, in 2020 the number of MSMEs spread across 10 sub-districts will be 43,715 business units. For more details, the development of MSMEs in Tabanan Regency can be seen based on data from the last 4 years in 10 Districts, as follows:

TABLE I. Total Development of MSMEs in Tabanan Regency

No	Districts	Data 2017	Data 2018	Data 2019	Data 2020
1	Selemadeg	1.774	1.858	1.938	2.155
2	Selemadeg Timur	1.948	2.041	2.121	2.197
3	Selemadeg Barat	1.750	1.833	1.938	2.003
4	Kerambitan	3.484	3.651	3.741	3.842
5	Tabanan	6.657	6.975	7.200	7.236
6	Kediri	8.309	8.704	8.952	9.027
7	Marga	3.751	3.930	4.015	4.139
8	Baturiti	4.351	4.558	4.683	4.900
9	Penebel	4.019	4.211	4.311	2.272
10	Pupuan	3.530	3.698	3.803	3.944
	<b>Jumlah</b>	<b>39.574</b>	<b>41.459</b>	<b>42.702</b>	<b>43.715</b>

(Source : Tabanan Regency Cooperative and MSMEs Service 2021 in [6])

The Tabanan Cooperatives and MSMEs Office claims that there has been an increase in the number of micro, small and medium enterprises (MSMEs) during the Covid-19 pandemic. In real calculations, MSMEs have actually been affected by the weakening economic conditions in Bali which reached minus 12%. However, the existence of MSMEs has actually grown and developed rapidly over the past year. According to the Head of the Tabanan Cooperatives and MSMEs Office, the growth of MSMEs during the Covid-19 pandemic was known based on reports from the government in the villages. Another factor is the growth of MSMEs in Tabanan, also many residents who used to work in the tourism sector have switched to starting their own business as MSME actors. Then the growth of MSMEs is also due to the opening of markets for marketing MSME products. Like on social media and other online sales applications. This seems to be what new MSME players use to sell their products [7]

In their 2014 research, Hartono and Hartomo stated that the main obstacles to MSME development in Indonesia are related to: 1) the low quality of human resources, especially in terms of management, organization, technology, and marketing. 2) inadequate entrepreneurial knowledge. 3) market orientation is still focused on low-level economies. 4) conventional innovation. 5) short access to capital, information technology, market and other industrial factors [8]. As a major tourist destination for central Indonesia, the existence of SMEs in Bali is absolutely necessary in providing various needs of the community, both for local people and foreign tourists. Micro, Small and Medium Enterprises (MSMEs) exist to support people's lives in relation to the tourism sector.

Internet presence allows them to get information for their business activities. The use of the internet in business has changed from its function as an electronic means of exchanging information into a tool for strategic business applications, such as: e-Commerce [9]. However, the challenge in today's era is not to gain access to information, but to find the most relevant information to solve problems. While e-Commerce can help increase market exposure, tourists are less likely to explore local products through e-Commerce, but instead explore their own origins.

As one of the world's tourist destinations, Bali certainly offers a variety of complete MSME crafts to create comfortable travel for local and international tourists. The absence of an

application that collects detailed information about MSMEs in Tabanan Regency in one media platform has made researchers move to create an application called Talocraft (Tabanan Local Craft). The application is expected to help local and international tourists easily and comfortably find MSME crafts in Tabanan Regency. Apart from helping tourists in their search for MSME handicrafts, the Talocraft application is also expected to be able to help MSME actors in marketing as well as a promotional medium for their MSME.

In this study entitled "Mobile Application Development and Quality Assessment Models Of MSMEs E-Catalog System In Tabanan Bali" describes application development and quality assessment of an Android-based mobile application called Talocraft. Talocraft is designed to provide information and e-catalogs for SMEs in Tabanan Bali. Usability assessment using the System Usability Scale (SUS) was adopted to assess application quality to measure user satisfaction in terms of user friendliness, effectiveness and efficiency of an application consisting of 5 Likert scales.

*B. Problem Formulation*

The formulation of the problem from this research is described as follows:

- How to design and develop location-based mobile applications that meet usability quality assessments?
- How to design and develop applications according to user needs?

*C. Research Objective*

The purpose of this research is to develop an application for cataloging the location and information of Micro, Small and Medium Enterprises (MSMEs) in Tabanan Bali and named Talocraft and to analyze the usability of the application developed using the System Usability Scale (SUS) questionnaire.

*D. Research Scope*

The scope of this research is described as follows:

- Develop mobile-based applications with the Android operating system.
- The application content is based on MSME data and information in Tabanan Regency, Bali
- The quality of the developed application will be assessed using the System Usability Scale Questionnaire
- The application requires access to an internet connection, access to GPS and Google Maps

*E. Research Benefits*

The benefits of this research include scientific benefits and practical benefits. The explanation of the two benefits is explained as follows:

- Scientific Benefits

The scientific benefit of this research is expected to be useful for the development of Information Technology science, especially in the field of system development that the quality of information systems is very important in technological development.

- Practical Benefits

The results of this study are expected to bring practical benefits as follows:

1. Benefits for researchers : The benefit for researchers is that they can add insight to researchers regarding geographic information systems. Researchers can better understand location cataloging and can support government programs to digitize MSMEs in Tabanan Bali.
2. Benefits for tourists : The benefit for both foreign and domestic tourists is the availability of information with easy access in searching MSMEs catalogs in Tabanan Bali.
3. Benefits for MSME Owners: The benefits for MSMEs themselves are as a forum for increasing sales turnover and as a promotional medium to develop the business they are running.

## II. LITERATURE REVIEW

### A. Tabanan Regency

Tabanan Regency is one of several Regencies / Cities in the Province of Bali. Located in the southern part of Bali Island, Tabanan Regency has an area of 839.33 km<sup>2</sup> which consists of mountainous and coastal areas. Geographically, Tabanan Regency is located between 114° 54' 52" east longitude and 8° 14' 30" - 8° 30' 07" south latitude. The topography of Tabanan Regency is located between an altitude of 0 – 2,276 m asl, with details at an altitude of 0 – 500 m asl is a flat area with a slope of 2 – 15%. Meanwhile, at an altitude of 500 – 1,000 m above sea level, it is a flat to sloping area with a slope of 15 – 40%. Areas that have a slope of 2-15% and 15-40% are quite fertile areas where farmers carry out agricultural activities to make ends meet. In areas that have an altitude above 1,000 m above sea level and with a slope of 40% and above are hilly and steep areas.

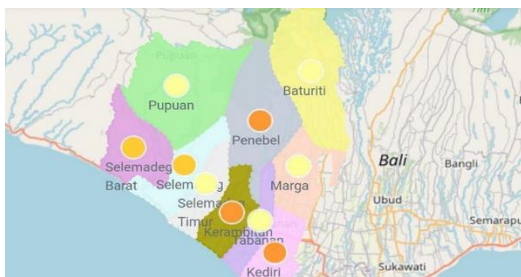


Fig. 1. Map of Tabanan Regency

The boundaries of the Tabanan Regency include: in the north it is bordered by Buleleng Regency, which is bounded by a series of mountains such as Mount Batukaru (2,276 m), Mount Sanghyang (2,023 m), Mount Pohen (2,051 m), Mount Penggilingan (2,082 m), and Mount Beratan (2,020 m); on the east it is bordered by Badung Regency, which is bounded by Tukad Yeh Sungai, Tukad Yeh Ukun and Tukad Yeh Penet. On the south it is bounded by the Indian Ocean, with a beach length of 37 km wide; to the west it is bordered by Jembrana Regency which is bounded by Tukad Yeh Let. Tabanan Regency is one of 9 regencies/cities with an area of 839.33 km<sup>2</sup> or 14.90% of the area of the province of Bali, and is located at an altitude of 0 – 2,276 m above sea level. A total of 23,358 hectares or 28.00% of the land area in Tabanan Regency is rice fields, so that Tabanan Regency is known as an agricultural area.

As we all know, the superior potential of Tabanan Regency is in the agricultural sector because most of the livelihoods, pillars of the regional economy, and land use in the Tabanan area are still dominated by agriculture in a broad sense. Tabanan Regency consists of 10 Districts (Tabanan District, Kediri District, Kerambitan District, Selemdag District, West Selemdag District, East Selemdag District, Penebel District, Pupuan District, Marga District, and Baturiti District) [10].

Tabanan Regency is located in the tropics with two different seasons between the dry season and the rainy season interspersed with transition seasons. The air temperature varies and is also determined by the altitude, the average is around 27.60 C. The state of irrigation is influenced by the shape of the coast and rainfall which is a source of water storage and a source of irrigation besides the lake which covers 377 hectares located in Baturiti District.

### B. Usability Quality Assessment

The study of usability is part of the multi-disciplinary field of Human Computer Interaction (HCI). Delivered by Nugroho (2009:2) in [11] Human Computer Interaction is a field of science that has developed since 1970 which studies how to design computer screen displays in an information system application so that it is comfortable to use by users. Usability comes from the word Usable which generally means it can be used properly. Something can be said to be useful properly, especially when failures in its use can be eliminated or minimized and provide benefits and satisfaction to users (Rubin and Chisnell, 2008) in [12]. According to Joseph Dumas and Janice Redish (1999) in [13] usability refers to how users can learn and use the product to achieve its goals and how satisfied they are with its use. The definition of usability according to ISO 9241:11 (1998) is the extent to which a product can be used by certain users to achieve the targets set with effectiveness, efficiency and achieve user satisfaction in certain contexts. Context of use consists of users, tasks, equipment (hardware, software and materials). Based on this definition usability is measured based on the components:

- Ease (learnability) is defined as how quickly users are proficient in using the system and the ease of use in carrying out a function and what users want they can get.
- Efficiency is defined as the resources expended in order to achieve the accuracy and completeness of objectives.
- Easy to remember (memorability) is defined as the ability of users to retain their knowledge after a certain period of time, the ability to remember is obtained from placing menus that are always fixed.
- Errors and errors are defined as how many errors the user makes, the errors the user makes include the discrepancy between what the user thinks and what is actually presented by the system.
- Satisfaction is defined as freedom from discomfort, and a positive attitude towards using a product or subjective measure as users feel about using the system.

### C. Geographic Information System (GIS)

Geographic Information Systems can present the real world onto a computer monitor like a map sheet that can present the

real world on paper. But GIS is more powerful and flexible than paper maps. GIS stores all the descriptive information of its elements as attributes in the database. Then, GIS forms and stores them in (relational) tables. After that, GIS connects the above elements with the relevant tables. Thus these attributes can be accessed through the locations of map elements, and conversely, map elements can also be accessed through their attributes. Therefore these elements can be searched based on the attributes. GIS connects a set of map elements with attributes in units called layers. Included in this layer are rivers, road buildings, seas, administrative boundaries, plantations and forests. It is this collection of layers that will form the GIS database. Thus database design is important in GIS. The database design will determine the effectiveness and efficiency of GIS input, processing, and output processes [14].

### III. RESEARCH METHODOLOGY

#### A. Research Method

The research method used in this study is the research & development method with the flow according to Figure 2 below.

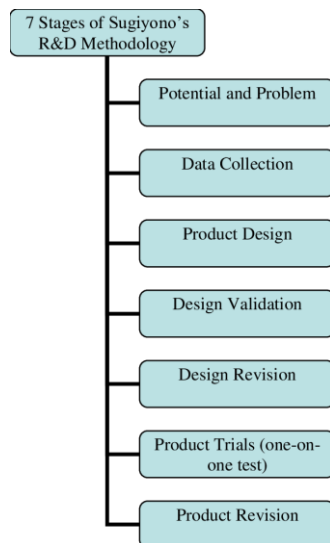


Fig. 2. Research and Development Method

According to Borg and Gall in [15] there are seven steps in the development research procedure, which are as follows:

- Research and Information Collecting Researchers conduct preliminary studies or exploratory studies to examine, investigate, and collect information. This step includes activities such as: needs analysis, literature review and observations of MSME actors and the MSME Office of Tabanan Regency.
- Planning/Planning Researchers make product development design plans. Important aspects of the plan include what the product is about, what its goals and benefits are, who the users of the product are, why the product is considered important, where is the location for product development and what is the development process.
- Development of the Initial Product Format/Develop Preliminary Form of Product The researcher begins to develop an initial product form that is temporary (hypothesis). The product is made as complete and as good

as possible, such as the completeness of the program components.

- Initial Trials / Researchers conduct limited trials of initial products in the field involving between two or three MSMEs with between 10-15 users. During the trial run, the researcher can observe the activities of the subject (user) in using the product. After completing the try-out, the researcher then conducted a discussion with the user.
- Product Revision/Main Product Revision Performing the first stage of revision, namely repairs and improvements to the main product, based on the results of limited trials, including the results of discussions, observations, interviews, and questionnaires/questions.
- Field Trial/Main Field Testing Conduct product trials on a wider scale. Estimates of SMEs involved are between five and ten SMEs and users between 30 and 100 people.
- Product Revision/Operational Product Revision Carrying out the second stage of revision, namely improving and perfecting the product based on input and suggestions from wider field trials.

#### B. Data

The data sub-chapter contains a brief explanation regarding the Types of Data and Data Collection Techniques which are further elaborated as follows:

- Data Types

The type of data used by researchers in this study is quantitative data, quantitative data is data in the form of numbers or qualitative data presented in the form of numbers. According to Sugiyono (2018; 13) in [16] quantitative data is a research method that is based on positivistic (concrete data), research data is in the form of numbers that will be measured using statistics as a counting test tool, related to the problem under study to produce a conclusion.

- Data Collection Techniques

In this study, in order to obtain data, the authors used a data collection method using a questionnaire. Researchers go directly to get data from the parties concerned directly or also called primary data. According to Sugiyono (2018: 193) in [17] primary data is a data source that directly provides data to data collectors. Furthermore, researchers took data directly on the object of research by distributing questionnaires. Questionnaires were distributed to 100 samples, namely Tabanan MSMEs Service Employees, UMKM owners in Tabanan Regency and Foreign and Local Tourists who had bought MSME products in Tabanan Regency, the questionnaire given to the respondents contained several questions that had to be answered by respondents which aimed to measure the quality of Talocraft application.

#### C. Analysis Techniques

In this study, data analysis techniques were carried out after the data for each respondent were collected, the data was calculated based on the System Usability Scale (SUS) formula. The following is the formula for calculating the SUS score:

$$\bar{x} = \frac{\sum x}{n}$$

Information:

$\bar{X}$  = Average Score

$\sum x$  = Total SUS Score

n = Total respondent

The rules for calculating scores on the questionnaire can be seen in the following points:

- Questions with an odd number (1, 3, 5, 7 and 9), statements or responses from users must be reduced by 1, for example in question 1 the respondent gave a response of 5 then the response is reduced by 1, for example: 5-1.
- For each even numbered question (2, 4, 6, 8 and 10), statements or responses given by the user from a value of 5 must be reduced by the score of the statement obtained from the respondent, for example in question 2 the respondent gave a response of 4, then the value of 5 is reduced by the response, example: 5-4.

- The SUS value is obtained from the sum of each question then multiplied by 2.5. The formula for calculating the score:

$$SUS\ Score = ((Q1-1) + (5-Q2) + (Q3-1) + (5-Q4) + (Q5-1) + (5-Q6) + (Q7-1) + (5-Q8) + (Q9-1) + (5-Q10)) * 2,5$$

This value calculation rule applies to only one test participant. For subsequent calculations, the SUS value of each test participant is found for the average value by adding up all the scores and dividing by the number of test participants. The first way to use SUS is to enter data on the results of the test participants into MS EXCEL, the second is to calculate the total of the results of the scores for each test participant from Q1 to Q10. thirdly multiply the total number of each respondent by 2.5.

The conclusion from the System Usability Scale (SUS) method is that after completing the calculation, the average SUS score is obtained from all respondents. the score then adjusted to the assessment or formula to calculate the SUS scale. Enter which category the test results with the average score have been obtained. The results obtained from these calculations have their respective meanings. This meaning can be seen in the following image:

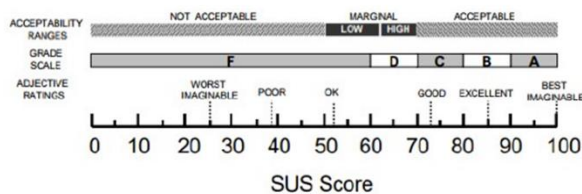


Fig. 3. SUS Score

- Acceptability Ranges, divided into 3 parts, namely Acceptable (70-100), Marginal (50 – 69) and Not Acceptable (0 – 49)
- Grade Scale, divided into 5 grades, namely A (90-100), B (80-90), C (70-80), D (60-70), and F (score <60).
- Adjective Rating, describes the value of SUS, which was originally a number and became an adjective. Adjective rating scale: Worst imaginable, Awful, Poor, Ok, Good, Excellent, and Best Imaginable.

#### IV. IMPLEMENTATION

The results that have been achieved by researchers in this

study are to build an Android-based mobile application called Talocraft. Below are some screenshots of the Talocraft application and its features:

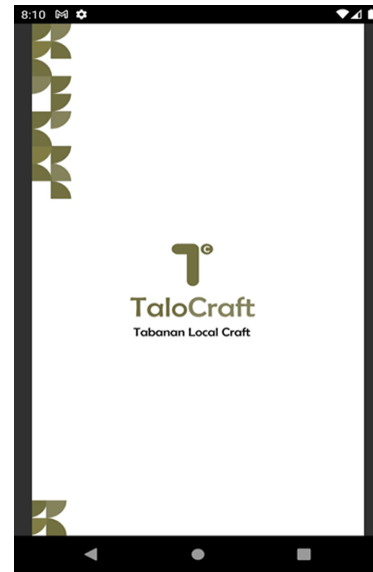


Fig. 4. Splashscreen Page

The splash screen page will appear for approximately 2.5 seconds after the user opens the Talocraft application. The splash screen page contains the name and background color of the application



Fig. 5. Home Page

Home page design consists of five nearest local craft stores from user location and five newest news that admin input on the app. There is also a search button that is directly connected to the search page.

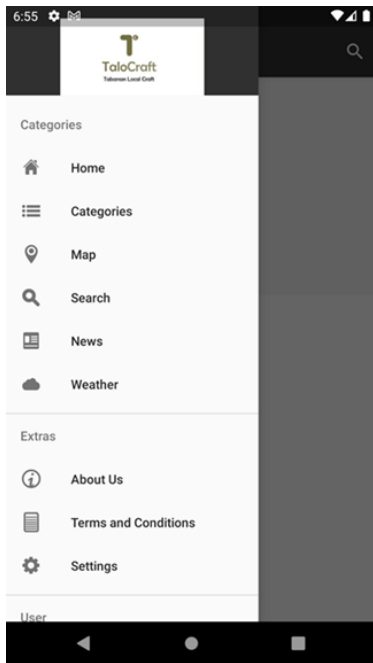


Fig. 6. Menu Page

Menu page consist of several menu that included in this application

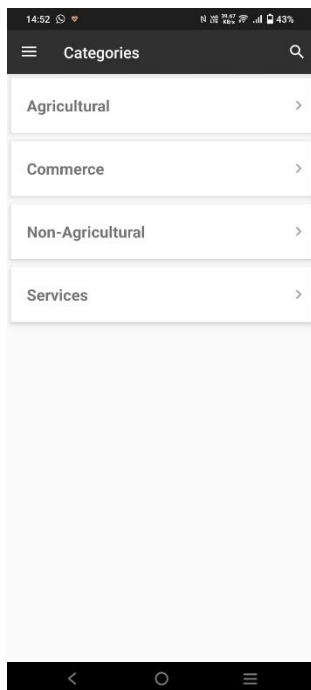


Fig. 7. Categories Page

The category page consists of four categories in accordance with the data that given by the Tabanan MSMEs employees. There is also a search button that is directly connected to the search page.

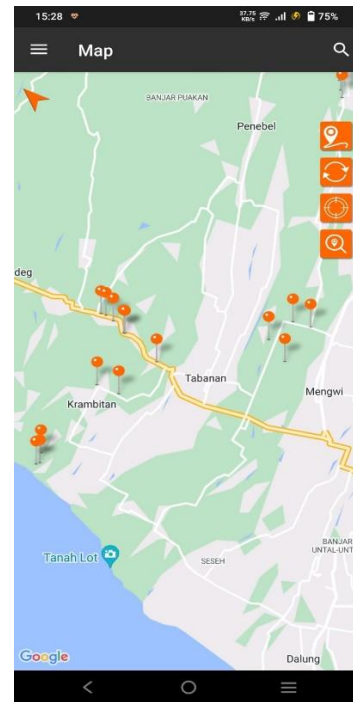


Fig. 8. Map Page

The map page consists of a fragment map that has been pinned to the store location and four support buttons, namely the draw map which is used to select the area the user wants by drawing a circle, the refresh button is used to refresh the map page, the set user location button is used to set the user's location and the last is the nearby button which is to view the local craft store which is less than 2 km from user location. If the user clicks on the pin store icon on the maps, a window will appear immediately containing the store name and address info. The route icon and view on google maps will also appear in the lower right corner of the map page.



Fig. 9. News Page

The news page contains news that is input by the admin. in this view there is a photo icon, the date of publication of the news and the hideline of the news



Fig. 10. About Us Page

The About Us page contains information about the Talocraft application. There is also a Contact Us button which functions to connect users with admin.

V. QUALITY ASSESSMENT

The validity test aims to determine the validity of the questionnaire questionnaire used by researchers in measuring and obtaining research data from respondents. Good data used as research instruments is valid data. The questionnaire can be accepted if  $r_{count} > r_{table}$ , (the measuring instrument used is valid) while the questionnaire is rejected if  $r_{statistic} \leq r_{table}$ . (measuring tool used is not valid or valid). The  $r_{table}$  for 100 sample and significance level is 5% is 0.195. The results of the validity test of this questionnaire are valid, as evidenced by Figure 11 below. Figure 11 shows that all the variables used (Q1-Q10) have a Pearson correlation  $> 0.195$ , which means that all the questions in this questionnaire are valid.

The reliability test aims to determine the level of consistency of the questionnaire used by the researcher, so that the questionnaire can be reliable even though the research was carried out repeatedly with the same questionnaire and at different times. The reliability test was carried out after the question items on the questionnaire were declared valid. The criteria of the reliability test are consistent if  $\alpha > r_{table}$  while the questionnaire are inconsistent if  $\alpha < r_{table}$ . The  $r_{table}$  for 100 sample and significance level is 5% is 0.195 The result of this questionnaire reliability test was 0.665 (cronbach's alpha) shown in figure 12, which means that the questionnaire distributed by the researcher was consistent.

		Correlations										
		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	total
Q1	Pearson Correlation	1	-0.070	.993**	-.126	.985**	-.152	.993**	-.132	.138	-.254**	.237*
	Sig. (2-tailed)		.487	.000	.212	.000	.130	.000	.191	.171	.011	.017
	N	100	100	100	100	100	100	100	100	100	100	100
Q2	Pearson Correlation	-.070	1	-.086	.753**	-.063	.512**	-.086	.495**	-.212*	.329**	.662**
	Sig. (2-tailed)	.487		.393	.000	.413	.000	.393	.000	.035	.001	.000
	N	100	100	100	100	100	100	100	100	100	100	100
Q3	Pearson Correlation	.993**	-.086	1	-.140	.993**	-.157	1.000**	-.137	.162	-.257**	.242*
	Sig. (2-tailed)	.000	.393		.165	.000	.118	.000	.173	.108	.010	.015
	N	100	100	100	100	100	100	100	100	100	100	100
Q4	Pearson Correlation	-.126	.753**	-.140	1	-.138	.595**	-.140	.407**	-.182	.388**	.669**
	Sig. (2-tailed)	.212	.000	.165		.170	.000	.165	.000	.070	.000	.000
	N	100	100	100	100	100	100	100	100	100	100	100
Q5	Pearson Correlation	.985**	-.083	.993**	-.138	1	-.152	.993**	-.132	.173	-.240**	.255*
	Sig. (2-tailed)	.000	.413	.000	.170		.130	.000	.191	.086	.016	.010
	N	100	100	100	100	100	100	100	100	100	100	100
Q6	Pearson Correlation	-.152	.512**	-.157	.595**	-.152	1	-.157	.506**	-.485**	.340**	.308**
	Sig. (2-tailed)	.130	.000	.118	.000	.130		.118	.000	.000	.001	.002
	N	100	100	100	100	100	100	100	100	100	100	100
Q7	Pearson Correlation	.993**	-.086	1.000**	-.140	.993**	-.157	1	-.137	.162	-.257**	.242*
	Sig. (2-tailed)	.000	.393	.000	.165	.000	.118		.173	.108	.010	.015
	N	100	100	100	100	100	100	100	100	100	100	100
Q8	Pearson Correlation	-.132	.495**	-.137	.407**	-.132	.506**	-.137	1	-.307**	.420**	.406**
	Sig. (2-tailed)	.191	.000	.173	.000	.191	.000	.173		.002	.000	.000
	N	100	100	100	100	100	100	100	100	100	100	100
Q9	Pearson Correlation	.138	-.212*	.162	-.182	.173	-.485**	.162	-.307**	1	-.242*	.231*
	Sig. (2-tailed)	.171	.035	.108	.070	.086	.000	.108	.002		.015	.021
	N	100	100	100	100	100	100	100	100	100	100	100
Q10	Pearson Correlation	-.254**	.329**	-.257**	.388**	-.240*	.340**	-.257**	.420**	-.242*	1	.403**
	Sig. (2-tailed)	.011	.001	.010	.000	.016	.001	.010	.000	.015		.000
	N	100	100	100	100	100	100	100	100	100	100	100
total	Pearson Correlation	.237*	.662**	.242*	.669**	.255*	.308**	.242*	.406**	.231*	.403**	1
	Sig. (2-tailed)	.017	.000	.015	.000	.010	.002	.015	.000	.021	.000	
	N	100	100	100	100	100	100	100	100	100	100	100

Fig. 11. Validity Test

Reliability Statistics

Cronbach's Alpha	N of Items
.655	10

Fig. 12. Reliability Test

The usability testing using SUS questionnaire are for odd-numbered or positive questions, the score answered on the questionnaire is reduced by one (n-1). For even number or negative questions, the score of 5 minus the user score (5-n). Then all the scores are added up and then multiplied by 2,5 and after that the researcher can calculate the overall average value and the results can be compared with Figure 3 in order to know the grade of talocraft application.

The calculation result of the percentage using the SUS questionnaire is 83,725% Viewed from the standard set by the SUS score, it can be concluded that the talocraft application in the Acceptability Ranges scale is included in the "Acceptable" category, on the Grade Scale it is included in the "B" grade and on the Adjective Ratings scale include a "Good" rating.

VI. CONCLUSION

Based on the results of the research and discussion above, it can be concluded that mobile application development based on Android operating system called Talocraft and quality assessment models using Usability testing with SUS Questionnaire of MSMEs e-catalog system in Tabanan bali has been successfully built and analyzed.

The results of the quality analysis of the Talocraft application using SUS questionnaire for testing the usability of the applications obtained the calculation result of the percentage using the SUS questionnaire is 83,725% Viewed from the standard set by the SUS score, it can be concluded that the talocraft application in the Acceptability Ranges scale is

included in the "Acceptable" category, on the Grade Scale it is included in the "B" grade and on the Adjective Ratings scale include a "Good" rating. In general the Talocraft application is appropriate as an application for mapping local craft locations and information in Tabanan Bali.

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