

Research Paper

Design and Build the Social Security Equity Crowdfunding Application as Funding Optimization for MSMEs

Achmad Murdiono^{1*}, Subagyo¹, Ely Siswanto¹, Nadia Asandimitra², Norzalita Abd Aziz³

¹Department of Management, Faculty of Economics and Business, State University of Malang

² Department of Management, Faculty of Economics and Business, Surabaya State University

³Graduate School of Business, Universiti Kebangsaan Malaysia

ORCID

Achmad Murdiono: <https://orcid.org/0000-0001-8215-3964>

Abstract.

The existence of MSMEs for the economy in Indonesia is very strategic because of their contribution to gross domestic product (GDP) and high employment. In addition, the MSME sector has proven to be strong in facing national and international economic crises. Even though it has a high contribution it does not mean that MSMEs do not face problems. One of the problems faced by MSMEs is the low ability to develop their business due to limited access to capital. Therefore, this study aims to design and build a funding application (social security equity crowdfunding) for MSMEs. The design of this study uses a research and development approach with four main stages, namely (1). Carry out a preliminary study through theoretical studies and field studies in order to develop an application framework. (2) Compile applications according to the design carried out in the preliminary stage. (3) Conduct expert validation tests and limited-scale trials. (4). The final stage of this research was conducting a large-scale trial of 30 MSMEs in Tulungagung, Kediri and Blitar Regencies. Through research, a funding application is produced with a social security equity crowdfunding scheme that can assist MSMEs in developing alternative funding outside of financial institutions, so as to increase the business capacity and competitiveness of MSMEs at the national and international levels.

Keywords: social security equity crowdfunding application, funding alternatives, MSMEs

1. Introduction

The existence of Micro, Small and Medium Enterprises (MSMEs) in the national economy is very strategic because they are able to become one of the business units that absorb a large number of workers and also play a role in distributing development results for the community [1]. The economic recovery which is currently experiencing a contraction cannot be separated from the role of MSMEs, whose number is currently estimated at more than 40 million, and more than 99 percent of them are micro-scale businesses.

Corresponding Author: Achmad Murdiono; email: achmad.murdiono.fe@um.ac.id

Published 24 January 2024

Publishing services provided by Knowledge E

© Achmad Murdiono et al. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the 4th INCLAR Conference Committee.

 OPEN ACCESS

The large number of MSMEs has contributed to labor absorption, with 97% of the entire national workforce working in the micro, small and medium enterprise sector [2]. These conditions indicate that the position of MSMEs is very strategic and can be a stimulator for national economic growth [3]. So it is imperative to strengthen the MSME group which involves many parties outside the government.

In addition, MSMEs are the largest contributors to national gross domestic product (GDP). Over the past year, the Ministry of Cooperatives and Small and Medium Enterprises (Kemenkop UMKM) recorded that the number of MSMEs reached 64.2 million with a contribution to GDP of 61.07 percent or rp8,573.89 trillion. Although it has a strategic role in the national economy, the existence of MSMEs is inseparable from business problems. One of the problems faced by MSMEs is limited capital in developing a business [4]. This problem is inseparable from the existence of MSMEs that are still unable to access capital from financial institutions [3]. Departing from the above problems, a funding model innovation is needed in order to strengthen the business while being able to support the performance of MSMEs in Indonesia.

The funding innovation for MSMEs developed in this study is a funding platform that is able to bring MSMEs together with investors. This concept has then developed with the equity crowdfunding model. The equity crowdfunding model is a method of raising funds in order to finance projects that are being developed by MSMEs with joint venture schemes carried out by investors. In its development, the concept of equity crowdfunding has developed into *Social Security Equity Crowdfunding* which emphasizes more on the concept of business ownership by investors based on plasma core business partnerships. This equity crowdfunding model is intended to be able to act as a funding medium for small and medium-sized start-ups to increase capital and investment capacity for MSME players [5]. This convenience further elevates the Fintech sector in its role in running the national economy and the transformation from the conventional to the digital era [6].

The presence of the Fintech platform will be very helpful because Fintech is a combination of financial services and technology that can make it easier for people to save, borrow and invest online [7]. This statement is reinforced by data from the Financial Services Authority (OJK) where there has been an increase in all related elements, ranging from Fintech companies to lending, which reached IDR 146.25 trillion in January to November 2020 [2]. The existence of this equity crowdfunding-based fintech already has a legal umbrella from the Financial Services Authority (OJK) which is regulated in the OJK Regulation, namely POJK Number 57/POJK.04/2020 concerning Securities Offerings Through Information Technology-Based Crowdfunding Services.

Various results of previous studies explain that there is a relationship between people's motivation in business funding [8], [9], [10], [11], the use of platforms to business funding [12], [13], [11], and the use of crowdfunding applications in order to support funding for businesses [14], [15], [16]. Based on previous research, there is a role of funding development using the security crowdfunding model and the use of fintech in supporting business funding.

Changes in business models at this time are inseparable from the existence of financial technology (fintech) which makes business processes faster [17]. One form of development and implementation of financial technology (Fintech) is the development of equity crowdfunding [6]. The theory development and implementation of crowdfunding concept is bigger than crowdsourcing [18]. Various definitions of crowdfunding are essentially a form of cooperative cooperation by people who raise funds to support other people's efforts [19].

Through the results of this research, an application will be produced that is able to answer the need for easy and fair access to funding with a family concept called social security crowdfunding (SSC) for MSMEs in Indonesia. At this time there have been many studies that raise the concept of crowdfunding, but not much has been done that develops the concept of social security crowdfunding. Therefore the problem raised in this study is how to design, build and implement social security equity crowdfunding applications as funding optimization for Small, Micro and Medium Enterprises (MSMEs).

2. Research Method

The design in this study uses an approach (Research and Development) in answering the research objectives that have been set at the beginning. In producing research products that have eligibility standards, a systematic guide to the steps taken by researchers must be prepared [20]. In order to produce research products, the following are 4 (four) stages of research that will be implemented.

2.1. Stage studi pendahuluan

At this stage, what was carried out was to conduct a preliminary study of 30 MSMEs in Tulungagung, Kediri and Blitar Regencies. The results of the preliminary study will produce a formulation of the design of the Social application as much as equity crowdfunding.

2.2. Application stage

The next stage will be carried out is to design the initial form of *the Social application as much as equity crowdfunding until the construction of an application that is ready for expert validation and limited scale testing.*

2.3. Expert trial stage and limited scale

The activities carried out at this stage are trials of materials and programs by experts. Before conducting expert trials, validity and reliability tests were first carried out. After the validity and reliability testing process, researchers will continue with trials on a limited scale on 10 MSME managers.

2.4. Large-scale trial and repair phase

At this stage what was carried out was to conduct a large-scale trial of the model on 30 MSME managers and the Blitar Regency Cooperative and MSME Office which were the objects of research. This data analysis technique is used to process data from respondents using the application. The results of the large-scale trial will be the basis for carrying out the improvement process before the application is officially used by MSME actors.

This study used 30 MSMEs in Tulungagung, Kediri and Blitar Regencies. The data that has been collected is then analyzed descriptively to analyze the data obtained from the validation results of material experts, media, and questionnaires from users. There are several data analysis techniques used in this study,

1. Validity Test, construct validity test is used in this study, while the formula used is the *product moment* formula.
2. Reliability Test, reliability test is carried out with the *cronbach alpha formula*. The reliability test results in this study were declared reliable if the alpha produced > of the reliable critical number [18].
3. Descriptive Data Analysis , Descriptive data analysis exposes the results of the study based on the data that has been obtained. Percentages and qualitative criteria can be established based on the following table:

TABLE 1: Development revision decision making.

<i>Achievement</i>	<i>Qualification</i>	<i>Information</i>
81-100%	Excellent	No need for revision
61-80%	Good	No need for revision
41-60%	Enough	Revision
21-40%	Not Good Enough	Revision
0-20%	Very Bad	Revision

Source[21].

3. Result and Discussion

3.1. Preliminary study stage

There are 2 main activities in the preliminary t ahap, namely literature studies then continued with field studies. The literature study was conducted by looking for references to the concept of empowering MSMEs in the aspects of funding and investment. Meanwhile, field study activities begin with observations in the field by identifying the character of financing and investment in MSMEs. One of the objectives of this field observation activity is to identify the need for the preparation of social security equity crowdfunding applications.

Field studies were conducted to identify the problems and needs of researchers in accordance with the problems expressed in the background above. Through this field study, the team obtained materials to compile the necessary content in the application to be built. The collection process carried out in field studies was carried out using interview techniques to MSMEs. The field study was conducted by the team through visits to MSMEs in Tulungagung, Kediri and Blitar Regencies and the Blitar Regency Cooperatives and MSMEs Office.

The results of the field study show that the majority of MSMEs finance through financial institutions in the area, for example cooperatives. Not many do financing in banking institutions because they have difficulty meeting the administrative requirements put forward by banks. Meanwhile, the funding process in cooperatives is relatively easier and simpler for MSMEs. In addition, the research carried out on alternative financing that is in accordance with the characteristics of the MSME business resulted in a limited business ownership-based financing model. Then the following is a funding model as the basis for preparing a social security equity crowdfunding application.

The localization scheme with the social security equity crowdfunding model described in the picture above provides an explanation that there are 3 parties in

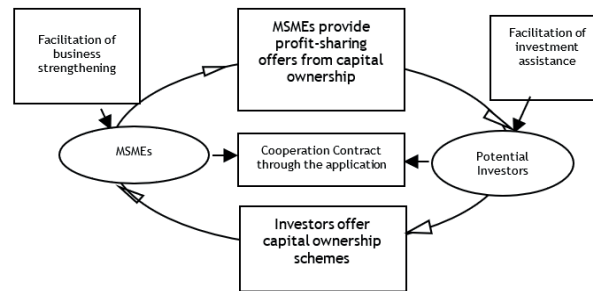


Figure 1: Social security equity crowdfunding funding scheme.

the process of financing social security equity crowdfunding for MSMEs. The first party is MSME actors as parties who need capital, the second party is potential investors who will place funds for investment activities and the third party is an investment operation or manager who will play an administrative and substantive role. The concept of localization with the social security equity crowdfunding model is expected to be able to encourage MSMEs to upgrade to become professional and accountable business entities. So that the social security equity crowdfunding application that will be built is expected to be able to become a partner for MSMEs to increase business capacity and alternative investments for investors in Indonesia.

3.2. Application development stage

After the process of literature study and field study, the next step is to analyze and formulate the content of the application. With the consideration of branding the application so that it is easier to be known by the public, it was decided to use the name “urunUMKM”. The concept of “urunUMKM” means that the community has the opportunity to participate in national economic empowerment through increasing the business capacity of MSMEs. This is an overview of the “urunUMKM” application.

On the main page of this application is a menu of options for investors regarding project offers from MSMEs. On this page, information will be provided to investors regarding alternative business options that will become partners of investors in investing their capital. To make it easier for investors to determine investment partners, various types of information related to investment decisions, including business profiles, business development potential offered by MSMEs, will be explained in detail in this application.

When entering the menu feature on the application, the information displayed includes; capital status, see daily data, balance, forums, news and reports. Furthermore, when the user chooses to be a party who needs capital, the menu that must be done

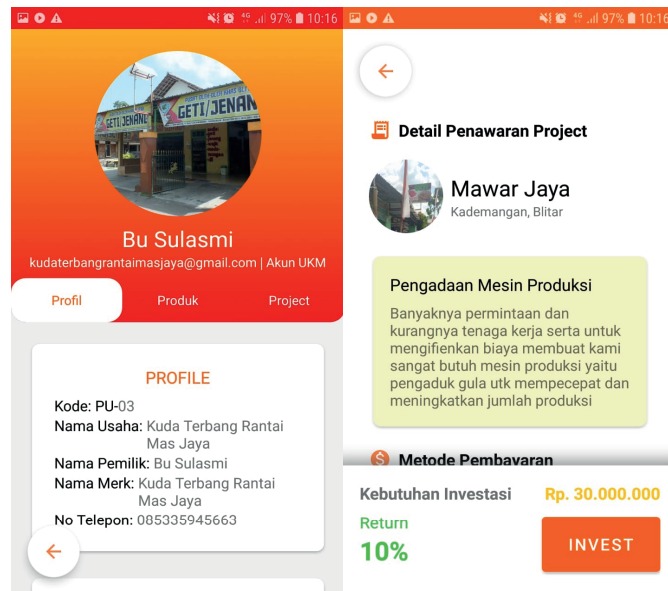


Figure 2: Social security equity crowdfunding application display.

is that they must upload a proposal for the division of business ownership based on the project to be run. The proposal submitted by the MSME will later be submitted to the investor. Investors can choose for an attractive and profitable business. In addition, in order to increase investor confidence in fund managers, this application provides reports to investors periodically. The report displayed in the application is a financial statement, through this report it is expected that the company's performance will be known in a certain period.

The concept of funding with the social security equity crowdfunding model attracts investor involvement in making more informed and profitable business decisions in making decisions. The further impact generated when the performance of MSMEs increases, the more trusted by investors, makes their productivity increase so that they can absorb more workers. This "urunUKM" application is expected to be able to become one of the incubators in this will create a healthy MSME business ecosystem and make the continuity of the MSME business more guaranteed, so as to reduce unemployment and become one of the accelerators of the Indonesian economy

3.3. Application trial phase

The next step in preparing for the "urunUKM" application is to conduct a limited review and testing by a team of experts. This test should check not only the reliability of the application process, but also the reliability of the application created. In this study, effectiveness and reliability tests, effectiveness tests were carried out by a team of

experts, and application acceptance rate tests were carried out by users. The following will be described by the hasil of each trial.

3.3.1. Reliability Test

The results of the reliability test show that the questionnaire variable has a cronbach alpha coefficient value greater than 0.6, so the question instruments used in the user and expert questionnaires can be said to be reliable.

3.3.2. Expert team validation

Model evaluation is carried out by experts or practitioners using theory-based evaluation tools that are used as indicators of expert evaluation. Expert validation of the designed application has resulted in an acceptance rate of more than 60%. This means that the programming, content and display aspects are rated well. As a result of this peer review process, experts agree that the application will serve as an alternative funding for MSMEs.

3.3.3. Test the acceptance rate of the application

In order to see the level of user satisfaction with the “urunUKM” application, an evaluation is needed in the form of an application acceptance level test. The results of the evaluation of the application model show that the acceptance value of the “urunUKM” application is more than 80%. This means that the application made has been rated as a very good “urunUKM” application for analysis based on appearance, material aspects and benefits.

4. Conclusion

Based on the results and discussion that have been described through the stages in this study, the conclusions are described as follows.

1. The social security equity crowdfunding application is a funding application for MSMEs players whose function is not only as an alternative to funding, but also to create a healthy MSMEs business ecosystem, so that it can become one of the accelerators of the Indonesian economy.

- [9] Choy K, Schlagwein D. Crowdsourcing for a better world: About the relationship between IT affordability and donor motivation in charity crowdfunding. *Inf Technol People*. 2016;29(1):221–247.
- [10] Gleasure R, Feller J. Does the heart or head regulate donor behavior in the charity crowdfunding market? *Int J Electron Commerce*. 2016;20(4):499–524.
- [11] Sitanggang MH. Understanding the crowdfunding mechanisms and motivation to participate in Kitabisa.com Platforms. *E Journal UNDIP*. 2018;23(3):1–11. Taken from the teraksi-online <https://ejournal3.undip.ac.id/index.php/in/article/view/20859/19553>
- [12] Hutami N, Irwansyah. Utilization of Kitabisa Mobile Application in the implementation of crowdfunding in Indonesia. *Communication*. 2019;XIII(2):183–194.
- [13] Ibrahim N. Web-Based Crowdfunding Platform for Donations, Sponsorships, and SME Funding. In *Proceedings of the National Conference on Information Systems (KNSI)*. 2013. (pp. 216–220). Mataram
- [14] Abdillah F, Danial E. Crowdfunding: Democratizing financial access in support of student social action. *Scientific Journal of the Pulpit of Democracy*. 2015;15(1).
- [15] Adiansah W, Mulyana N, Fedryansyah M. The potential of crowdfunding in Indonesia in social work practice. In *Proceedings of KS: Research & PKM*. 2016. (pp. 155–291).
- [16] Arifin SR, Wisudanto. Crowdfunding as an alternative to infrastructure development financing. In *Proceedings of Symposium II – UNIID* (pp. 309–314). Palembang. 2017.
- [17] Heliantina F. Siaran Pers - Ekonomi Digital Mempercepat Pembangunan Ekonomi. Kementerian Koordinator Bidang Perekonomian Republik Indonesia. 2017. (Online) diakses pada 9 Desember 2019 (www.ekon.go.id)
- [18] Belleflamme P, Lambert T, Schwienbacher A. Crowdfunding: Knocking the right crowd. *J Bus Venturing*. 2014;29(5):585–609.
- [19] Dresner S. *Crowdfunding: A guide to raising capital on the internet*. New Jersey: John Wiley & Son; 2014.
- [20] Borg WR, Gall MD. *Educational research: An introduction, Fifth Edition*. New York: Longman; 1983.
- [21] Singgih S. *Riset Pemasaran Konsep dan Aplikasi dengan SPSS*. Jakarta: Elex Media Komputindo; 2001.