# Journal of Economics, Finance and Management Studies

ISSN (print): 2644-0490, ISSN (online): 2644-0504 Volume 5 Issue 09 September 2022 Article DOI: 10.47191/jefms/v5-i9-24, Impact Factor: 6.274 Page No. 2699-2708

# MSMEs Resilience: The Role of Religiosity, Culture, Use of Technology and Management Characteristics



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**ABSTRACT:** The aim of this study is to test the influence of religiosity, culture, the use of technology, management characteristics mediated by the resilience of entrepreneurs to increase MSME resilience. This research is a type of quantitative research with an exploratory approach that uses SEM PLS statistical test tool to test the direct and indirect relationship influence of the variables. This research was conducted in the Malang Raya region, which consists of the city of Malang, Malang Regency and Batu City especially on Muslim businesswomen in the field of food drinks who survived during the pandemic. The results showed that the increase in the religiosity of entrepreneurs will increase the resilience of entrepreneurs and also the resilience of MSMEs. Culture values exerts a significant and positive influence on the resilience of entrepreneurs and also on the MSMEs resilience. The use of technology cannot be separated from the resilience of entrepreneurs. The influence of the use of this technology in addition to have direct impact on the resilience of entrepreneurs and also has a direct impact on MSMEs resilience. The characteristics of the management of a business have no significant effect on the resilience of entrepreneurs and also on the resilience of MSMEs. This research shows that the resilience of entrepreneurs is able to mediate the influence of religiosity on MSMEs resilience.

KEYWORDS: MSMEs Resilience, Religiosity, Culture, Technology Use, Management Characteristics

#### INTRODUCTION

Micro, small and medium enterprises (MSMEs) are the backbone of the economy for many countries with a total of more than 90% of all existing companies (Franco et al., 2020). The MSME sector contributes greatly to the social economic welfare of the world community, especially in developing countries (Das et al., 2020). In Indonesia, based on BPS data (2018), the MSME population reaches 42.5 million units or 99.9% of all business people, contributing 99.6% of employment and 56.7% of GDP. Tambunan (2012) conveyed the great role of MSMEs related to job opportunities, unemployment reduction, income sources, and poverty alleviation (Dewi Amaliah Nafiati & Mulyani, 2020) as well as other advantages such as technological product innovation, humanism, the role of entrepreneurship and managerial dynamism (Firmansyah, 2019).

The Covid-19 pandemic has had a significant impact on the economy, including in Malang City. Reporting on merdeka.com (2021), the Mayor of Malang City, Sutiaji said that the wheels of the economy in Malang City which were hampered throughout 2020 caused a decrease in Malang City's Original Regional Income (PAD) by 20.78% (Jatimnews.com 2020). Of the number of MSMEs recorded in Malang City, which is around eight thousand MSMEs, during the Covid-19 pandemic, 20% of them, namely 1,600 MSMEs, stopped their business operations. The mainstay sector of pad source in Malang City, namely the hotel and restaurant service sector, felt the impact of a decline of more than 50% from the beginning of March 2020 until the whole of 2020. Other sectors that are also affected are the textile and fashion sectors. Meanwhile, MSMEs in the food and beverage sector, (especially ready-to-eat and frozen food) supported by online sales have proven to be able to survive the crisis and continue to contribute to economic growth (Wikantiyoso et al., 2021).

In times of crisis, Muslim food and beverage entrepreneurs, especially women, are relatively still able to survive because of their strong belief in optimizing their business endeavors by facing Allah's help to be able to pass this difficult condition by being supported by the number of customers with a large Muslim population (*Islamic economy market size*) to meet their basic needs (Nugraheni & Nila, 2021). Meanwhile, research (Malihah et al., 2021) stated that the issues of preparing women to adapt to new habits during the COVID-19 pandemic are addressed by building women's resilience based on social capital, their knowledge, experience, and aspirations in responding to the pandemic's impact. Women gain resilience and confidence in building a sense of belonging as a result of a strengthening effort driven by the inclusion of various training. This research contributed to the rise

of studies on MSME resilience during the Covid19 pandemic, but the context of this study focuses on gender perspectives in the context of developing countries, especially in Indonesia.

Research on the resilience of MSMEs in Indonesia has been carried out by Agustina et al., (2020); Mariyati & Chomsyatun (2018); Mulyani (2020). The phenomenon of existing research results has not been consistent, and there has been no empirical research that focuses on the resilience of Muslim women entrepreneurs who are associated with religiosity, culture, the use of technology, and management characteristics to produce MSME resilience. Religiosity will affect the way a person interprets, responds and determines decisions (Utomo, 2020). Confidence in the existence of dynamics and changes will give birth to enthusiasm and optimism (Sachitra & Siong-Choy, 2019) so that religiosity contributes to the achievement of superior performance (Goel & Misra, 2020). Research by (Du & Zeng, 2019) states that religiosity plays an important role for entrepreneurs in facing changes and shocks in life in order to be able to survive during crisis conditions.

Culture provides direction for employees to develop skills and learn new innovations to increase the allocation of company resources in order to be able to compete in the future (Hakim et al., 2021), as well as to build a strong sense of need for creativity, a positive and proactive attitude towards change and a commitment to work with a high level of flexibility (Kotter and Heskett, 1992) needed for the organization to survive and be resilient. The results of the research (Khedhaouria et al., 2020) explained that superior management characteristics can influence employee behavior to create organizational performance, to the sustainable practice of MSMEs. Then the use of technology, especially the internet is a key factor for MSMEs in times of crisis to realize MSME resilience. There are several models of e-business relationships (namely B2B, B2C and B2A) that are suitable for small businesses. The application of technology has generally been caused more by external pressures than by the benefits felt by its managers (Parry, 2015). The findings (Arostegui & Nieves, 2021) propose an e-Business architecture in order to build MSME resilience by considering the specific needs of MSMEs.

Entrepreneurial resilience relates to organizational resilience as identified in the existing literature (Santoro et al., 2020), (Branicki et al., 2018), (Fatoki, 2018). Research (Gunasekaran et al., 2011) found that individual resilience helps predict the success of entrepreneurial choices and is very important in determining organizational performance for MSMEs (Pal et al., 2014). Therefore, the main component of entrepreneurial resilience is the impact of entrepreneurial resilience on MSMEs which will also affect the wider economic system (Rajesh, 2018).

Based on the above phenomenon, it becomes very interesting to study "How is the picture of the resilience of Muslim women entrepreneurs in Indonesia, especially in the Greater Malang area, and to find out the influence of religiosity, culture, the use of technology, management characteristics mediated by entrepreneur resilience to build MSME resilience.

# LITERATURE REVIEW

# Resilience

The main concept of resilience is the personal strength, which is a person's ability to develop in a healthy manner and achieve a level of success in life (Tolner et al., 2021). Furthermore, resilience is a process of awakening from various problems and pressures of competence in the form of social competence, problem-solving skills, autonomy, and goals (Bhamra et al., 2011). Meanwhile, (Gunasekaran et al., 2011) added that resilience is a person's ability to get out of difficulties, his physical and psychological health, the ability to manage his experiences and emotions well, and a process of increasing self-adjustment throughout his life span. Tenacity, resilience, and the ability to rise, survive, and adapt in the face of adversity are all characteristics of resilience (Linnenluecke, 2017).

# **Entrepreneurial Resilience**

Resilience is defined as perseverance, "those with positive efficacy will bounce back and be resilient when meeting problems or even failure, while those with low efficacy will tend to give up when obstacles appear (Linnenluecke, 2017). Entrepreneurial resiliency is the one's positive psychological capacity to rebound, to 'bounce back' from adversity, uncertainty, conflict, failure or even positive change, progress and increased responsibility for business (Branicki et al., 2018). According to (Branicki et al., 2018), (Santoro et al., 2020) the resilience of entrepreneurs can be seen by indicators: the existence of social interaction, autonomy, creativity, comfort in facing uncertainty, and having a sense of optimism.

# **MSME** Resilience

Resilience at the organizational level (MSMEs) is defined as the ability of an organization to quickly recognize and seize opportunities, change direction, and avoid collisions (Beuren et al., 2021), or as a form of effort to move quickly, decisively, and effectively in anticipating, initiating and taking advantage of the changes faced (Morales et al., 2019). According to (Linnenluecke, 2017) organizational resilience is defined as the amount of disruption that an organization can absorb before it loses its structure and function, and the main variable for an enterprise in building business resilience, is the existence of adjustment ability, long-

term oriented, multi-temporal perspective, knowledge structure, innovation, as well as the existence of social capital exchanges. Indicators of MSME resilience according to (Branicki et al., 2018), (Teng-Calleja et al., 2020), (Sauser et al., 2018) consist of robustness, redundancy, resourcefulness, rapidity, renewal/reorientation, continuity and survival.

# Religiosity

Based on (Kumpfer, 1999) religiosity is faith and commitment to the principles believed to come from God, which are applied in daily life including doing business and entrepreneurship for Muslims not just out of necessity, but as a religious call to prosper life. Herlyana et al (2017) state that religiosity is a person's view on various aspects both in terms of worship (rituals) and also in terms of other activities that require supernatural support. Religiosity unites one's beliefs with lifestyles, ritual activities and institutions which means that one can be controlled and control others so as to remain in the best values (Ultimate, 2014). Faith will guide its adherents to understand life as a test (QS. Al Mulk: 2), which is subject to the dynamics of the sunnah of turnover (QS. Ali Imran). Confidence in the concept of the exam and the existence of a turnaround of conditions will push a person to take responsibility and make preparations to deal with it. Religiosity, especially for Muslims, according to (Utomo, 2020), (Hari Adi & Adawiyah, 2018) can be seen by indicators: Islam as a guide to life, belief in Allah's help, establishing prayers, doing ramadhan fasting, the act of setting aside funds for alms and zakat, and reading the Qur'an.

# Culture

Culture is a shared values, beliefs and norms (Khedhaouria et al., 2020) that help members of the organization to integrate, adjust and coordinate their activities and respond to other stakeholders (Madi Odeh et al., 2021). Therefore, culture is an important driver of a company's operations, efficiency, productivity, which can affect its ability to achieve plans and meet set goals, including surviving and rising from a slump (Gunasekaran et al., 2011). Cultural indicators consist of monocratic, oligarchic and patrician.

# Use of Technology

The use of technology, especially the internet is a key factor for MSMEs in times of crisis (Yousaf & Tariq, 2020). Several models of technology access relationship patterns such as B2B (business to business), B2C (business to consumer) and B2A (business to administration / government) are suitable for small businesses. B2B can be in the form of business collaboration with business partners, B2C is a sales model of a business that is directly to customers, B2A is an e-commerce business carried out by companies with government agencies. (Arostegui & Nieves, 2021) proposes an e-Business architecture by considering the specific needs of MSMEs in order to achieve profits, including: reducing the operating costs of the technology used, awareness of the importance of internet access, the use of e-marketplaces, the expediency of using technology, barriers to the use of technology, the B2b model used, the B2c model used, the B2A model used, as well as faster and more efficient internal processes.

# **Management Characteristics**

Management characteristics that support the establishment of resilience for MSMEs are very diverse, but referring to research (Gunasekaran et al., 2011) that there are several basic characteristics that can be found in many previous studies related to the characteristics of MSME management, including: MSME managers who use multi-tasking strategies when carrying out the important role of MSME management alone (Winch and Bianchi 2006), there is a co-alignment between the characteristics management with the MSME strategy applied (Entrialgo, 2002), the inclusion of MSME management in relevant training and education (Hausman, 2005), as well as the ability and skills possessed by MSME management to reflect on the specified strategy (Von, 2005).

# Religiosity, Culture, Use of Technology, Management characteristics and Resilience

Previous research has shown that the beliefs possessed by a person looking at the concept of exams and turnover will encourage the emergence of a sense of responsibility and make preparations to face the changing conditions that occur. The study (Cheong, 2021) supports the argument that values, beliefs, and norms have an impact on entrepreneurial orientation. Thus, entrepreneurial analysis based on religiosity provides benefits for the achievement of the company's goals in maintaining sustainability and surviving in crisis conditions.

The findings (Gunasekaran et al., 2011) and (Pal et al., 2014) note that the resilience of UMKM depends on the awareness of top management about globalization and its competitive strengths. Therefore, appropriate communication channels need to be established, so that top management can be flexible and responsive to strategic alliances and core competencies. Management training and education on the emerging corporate environment including on advanced business management strategies and tactics is needed to improve the efficiency of UMKM in a competitive economy.

Finding research by (Tolner et al., 2021) said that the SMEs should have a proactive attitude to technological novelties (e.g. social media tools) and be open to further development possibilities, like management trainings in regular time periods to enhance resilience. Stockdale and Standing (2004) argue that SMEs should be aware of the benefits and barriers they face when entering the e-marketplace environment.

Based on the previous discussion, the hypothesis of this study is compiled as follows:

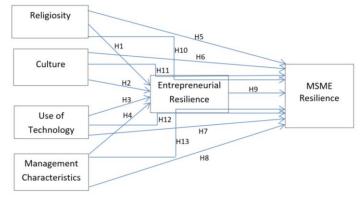
- H1: Religiosity affects employers' resilience.
- H2: Culture affects employers' resilience.
- H3: The use of technology affects the resilience of entrepreneurs.
- H4: Characteristic management affects the resilience of entrepreneurs.
- H5: Religiosity affects the resilience of MSMEs.
- H6: Culture affects the resilience of MSMEs.
- H7: The use of technology affects the resilience of MSMEs.
- H8: Management characteristics affects the resilience of MSMEs.
- H9: The resilience of entrepreneurs affects the resilience of MSMEs.
- H10: Entrepreneurial resilience mediates the influence of religiosity on MSME resilience.

H11: Entrepreneurial resilience mediates cultural influences on MSME resilience.

H12: Entrepreneurial resilience mediates the influence of technology use on MSME resilience.

H13: Entrepreneurial resilience mediates the influence of management characteristics on MSME resilience.

The conceptual framework constructed is described on Figure 1.





#### **RESEARCH METHOD**

This research is a type of quantitative research with an exploratory approach using the SEM PLS (*Structural Equation Model Partial Least Squares Regression*) statistical test tool to test the influence of direct and indirect relationships of variables religiosity, culture, technology use, management characteristics mediated by entrepreneur resilience on MSME resilience. According to Monecke & Leisch (2012) the use of SEM analysis with PLS can be used for research aimed at predicting and developing theories, by predicting endogenous latent variables or identifying the main variables in exploratory research or expansion of an existing structural theory as well as path analysis models.

This research was conducted on 150 Muslim women entrepreneurs (MSMEs) in the food and beverage sector in the Greater Malang area, (Malang city, Malang Regency and Batu City), who have met several *purposive* sampling criteria, including: (a) UMHM that is registered or has a business license and can be identified by the Malang City Cooperatives and Micro Enterprises Office, Malang Regency and Batu City; (b) MSME actors engaged in the food and beverage sector; (c) Muslim Women Entrepreneurs; (d) has been established for 3 years and experienced business growth. Data collection through a structured questionnaire obtained from respondents on the Likert scale (Strongly Disagree = 1 to Strongly Agree = 5).

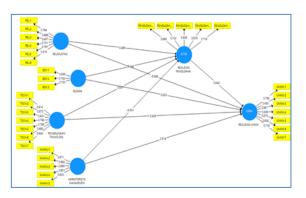
#### RESULT AND DISCUSSION

Structural Equation Modeling Analysis (SEM) can be used to see the influence between latent variables by using one statistical *software* Smart PLS (Purwanto et al., 2021). The stages carried out there are two stages, (1) The first stage is the evaluation of model measurements (*outer model*) and the second stage is the evaluation of structural models (*inner model*) (Ramayah et al., 2018). The first stage is to ensure that the indicators used in each of the latent variables are fit to be used in measuring. The

second stage is to see the significance of the influence between variables and the amount of parameter values (Darwin & Umam, 2020).

### Measurement Model analysis and Structural Model

The analysis of the measurement model (*outer model*) aims to see that the construct used in measuring each latent variable has been valid and reliable, by means of convergent validity tests, discriminant validity tests and reliability tests. The first stage is to evaluate the measurement model, which is shown in the following Figure 2.



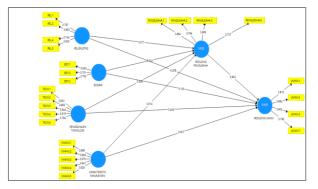


Figure 2. Structural Model before indicators eliminationFigure 3. Structural Model after indicators eliminationSource: Data processed by researchers with Smart-PLS 3, 2021

Figure 2 is the first glance, which shows that there are still several indicators with a Loading Factor value smaller than 0.7 that should be excluded from the model. So that the next step is carried out the processing of the second model and is shown by Figure 3, which results in that the entire Loading Factor value of each indicator of the latent variable is worth greater than 0.7. The measurement model is stated to have met convergent validity when the AVE value is greater than 0.5 (Sarstedt et al., 2022). The model is declared to have met convergent validity if the ratio of the square roots of the AVE Value of each construct is greater than the correlation between the constructions (Hult, n.d.) . Furthermore, for testing the reliability of the model construct, it is stated that it is good if the value of *Cronbach alpha* or *composite reliability* is more than 0.7 (Hair et al., 2018). The suitability of the model is shown through the model structural which is shown in the value R<sup>2</sup> and Q<sup>2</sup>. The results of the model measurement analysis are shown in Table 1.

Variables	AVE	onbach Alpha	Composite Reliability	<b>≀-Square</b>	ג-Square
igiosity	61	29	86		
ture	94	00	13		
e of Technology	86	87	16		
nagement Characteristics	41	15	35		
repreneurial Resilience	67	32	89	32	10
ME Resilience	26	73	14	18	48

# Table 1. Convergent Validity, Discriminant Validity, Reliability and Conformity of Models

Source: Data processed by researchers with Smart-PLS 3, 2021

Based on Table 1, it can be shown that the construct has met convergent validity, discriminant validity and reliability. The values  $R^2$  indicate 0.632 and 0.918. Cohen (1988) stated that if the value of  $R^2$  is greater than 0.26 (26%) then the influence shown is classified as a high influence.  $Q^2$  values of 0.410 and 0.648 greater than 0. (Hair et al., 2018) state that the model is said to be fit if the value of  $Q^2$  is greater than 0.

# Path Analysis and Hypothesis Testing

To see the significance of the relationship between latent variables, it can be seen from the *path coefficient* which describes the strength of the relationship between latent variables (Ringle et al., 2014). To see the significance *of the path coefficient*, it can be seen from the *t-test (critical ratio)* value obtained from the *bootstrapping process (resampling method)*. The t-statistical values on each path can be viewed through Table 2.

No.	Variables	Coefficient	<b>T-Statistics</b>	p-value
	Direct Effects			
1	igiosity → Entrepreneurial Resilience	0.271	3.500	).001***
2	ture $\rightarrow$ Entrepreneurial Resilience	0.133	1.980	).048***
3	$_{2}$ of Technology $ ightarrow$ Entrepreneurial Resilience	0.458	4.167	).000***
4	nagement Characteristics $ ightarrow$ Entrepreneurial Resilience	0.014	0.192	0.848
5	igiosity $\rightarrow$ MSME Resilience	-0.209	4.019	).000***
6	ture $\rightarrow$ MSME Resilience	0.135	4.115	).000***
7	e of Technology → MSME Resilience	0.430	5.326	).000***
8	nagement Characteristics → MSME Resilience	0.027	0.514	0.607
9	:repreneurial Resilience $\rightarrow$ MSME Resilience	0.643	16.489	).000***
	Mediation Effects			
10	igiosity $\rightarrow$ Entrepreneurial Resilience $\rightarrow$ MSME Resilience	0.174	3.213	).001***
11	ture $\rightarrow$ Entrepreneurial Resilience $\rightarrow$ MSME Resilience	00.086	2.114	).035***
12	$_{2}$ of Technology $\rightarrow$ Entrepreneurial Resilience $\rightarrow$ MSME	0.295	4.429	).000***
	silience			
13	nagement Characteristics $ ightarrow$ Entrepreneurial Resilience $ ightarrow$	0.009	0 170	0.858
	IE Resilience		0.179	0.000

Table 2. Path Coefficient, T-Statistics and P-Value

Source: Data processed by researchers with Smart-PLS 3, 2021; \*\*\*) sig. 1%; \*\*) sig. 5%

Hypothesis testing is carried out by looking at the significance of the path coefficient of each relationship between latent variables describing the strength of the relationship between the latent variables (Ringle et al., 2014). The significance of the path coefficient can be known through two values, namely the *t-test value (critical ratio)* and *the p-value*. Both values are obtained through the *bootstrapping process (resampling method)*. Based on the formulation of problems and hypotheses, from Table 2 it can be seen that the form of direct influence (at points 1-9), and indirect influence (on points 10 – 13).

The results of the coefficients of the Management Characteristics path to Entrepreneur Resilience, which are indicated by *the t-statistical* value and *p-values* of 0.192 (> 1.96) and 0.848 (> 0.05), the results of the Management Characteristics path to MSME Resilience, which are shown by 0.514 (< 1.96) and 0.607 (> 0.05), as well as the results of the Management Characteristics to MSME Resilience through Entrepreneur Resilience which are indicated by *the t-statistic* value and *p-values* of 0.179 (< 1.96) and 0.858 (> 0.05) which means insignificant. The estimated values of the parameters obtained are 0.014, 0.014 and 0.009 respectively so that **H4 is rejected**, **H8 is rejected**, **and H13 is rejected**. Management characteristics have no effect in building entrepreneur resilience, MSME resilience both directly and as an influence of mediation, this is because management characteristics in MSMEs are very diverse disparities. The management characteristics encountered in this research have not been optimal in terms of mastering multitasking strategies, co-alignment and participation in training and education so that they have not been able to build entrepreneur resilience and MSME resilience.

The results of the coefficient of the Religiosity path to Entrepreneur Resilience showed that the *t-statistics* and *p-values* obtained were 3,500 (> 1.96) and 0.001 (< 0.05) respectively, which means significant. The estimated value of the parameter which is the coefficient of the path of Religiosity to Entrepreneur Resilience is 0.271, so that **H1 is accepted**. The results of this study support the research of Chourou et al. (2020), Lu (2014) who stated that religiosity tends to be able to control employee actions in making decisions and solving problems both internally and externally and does not prioritize personal interests. Increasing the religiosity of entrepreneurs will increase entrepreneur resilience, so to increase entrepreneur resilience, it is important for business actors to increase their religiosity, namely by believing that Islam is Allah's guidance, believing in Allah's help, carrying out Ramadan fasting obligations and routinely setting aside zakat, infaq and shadaqah funds.

The results of the *coefficient of the Cultural* path to Entrepreneur Resilience showed that *p-values* 0.048 (< 0.05). The estimated value of the obtained parameter is 0.133, so that **H2 is accepted**. The direction of the relationship shown between work culture and employer resilience shows a positive direction. This can be interpreted to mean that a good work culture applied to MSMEs in Malang Raya will be able to increase the resilience of entrepreneurs. Work culture is one of the basics that become an assumption to solve problems that exist in an organization. Work culture is also the guiding values of human resources to be able to face external problems and integration or adjustment with internal parties. The results of a similar study were presented by Soraya (2018) and Putra and Putri (2020) which stated that there is a significant and positive relationship between work culture

and the performance of a company or organization. The results of this study show that Employer Resilience will increase if business actors carry out a good work culture as well, for example by building good work relationships, workers have a clear *job-desk* and high responsibility. Thus, this research can be a consideration for MSME actors to be able to create a good work culture and best suit their needs to increase the resilience of the MSMEs they run.

The results of the coefficient of the Technology Use to Entrepreneur Resilience path showed that the *t-statistical* and *p-values* obtained were 4,167 (> 1.96) and 0,000 (< 0.05), respectively, which means significant. The estimated value of the parameter which is the path coefficient of Technology Use to Entrepreneur Resilience is 0.458. It can be concluded that there is a positive and significant influence between the Use of Technology on Entrepreneur Resilience so that **H3 is accepted.** Stockdale and Standing (2004) argue that MSMEs must be aware of the benefits and obstacles they face when entering the e-marketplace environment.

The results of the coefficient of the Religiosity path to MSME Resilience showed that the *t*-statistics and *p*-values obtained were 4,019 (> 1.96) and 0,000 (< 0.05) respectively, which means significant. The estimated value of the parameter which is the coefficient of the Religiosity path to MSME Resilience is -0.029. It can be explained that religiosity has a significant effect on the Resilience of MSMEs, so that **H5 is accepted.** This shows that MSME actors with a higher level of religiosity will have better MSME resilience as well. The level of religiosity is one of the benchmarks for the progress of MSMEs in Malang Raya. The existence of adherence to the beliefs held by a person will make the person remain in the best value they are capable of, so, the resulting performance will affect the management activities and resilience (resilience) of MSMEs (Chourou et al., 2020), (Lu (2014). In line with the findings (Utomo, 2020) which explained that religiosity is an important part of the resilience of an MSME, that the attitude of being confident in the help of Allah SWT in facing the uncertainty of conditions, as well as helping each other and taking care of each other and influencing each other in kindness and survival and finding solutions to every problem faced, will be able to build a good attitude of control in managing MSMEs that bring about an impact that brings a good impact positive for the development and resilience of MSMEs.

The *Cultural* path to MSME Resilience and the Technology Use path to MSME Resilience, each has *p*-values 0.000 less than 0.005, which means significant. The estimated value of the obtained parameter is 0.135. It can be concluded that there is a positive and significant influence between *Culture* on MSME Resilience so that **H6 is accepted**. The estimated value of the parameter which is the coefficient of the path of Technology Use to MSME Resilience is 0.430. It can be concluded that there is a positive and significant influence between the Use of Technology on the Resilience of MSMEs so that **H7 is accepted**. The influence of the use of this technology, in addition to having a direct impact on the resilience of entrepreneurs, also has a direct impact on the resilience of MSMEs. The use of this technology will have a big role for entrepreneur resilience, especially for entrepreneurs who have realized the importance of the benefits of the internet and the benefits of information technology for the development of their business. Similarly, the use of e-marketplaces that support the increase in product sales. Same to this, the results of the coefficient of the Entrepreneur Resilience path to MSME Resilience has the *p*-values 0.000 less than 0.005, which means significant the estimated value of the obtained parameter is 0.643. It can be concluded that there is a positive and significant influence between Entrepreneur Resilience and MSME Resilience so that **H9 is accepted**.

The results showed that the religiosity of managers, work culture and the use of technology in MSMEs had a significant effect on the resilience of entrepreneurs. The value of the estimation coefficient which is a form of direct influence of religiosity, culture and information technology on the resilience of entrepreneurs is 0.271; 0.133 and 0.458. The resulting direction of the relationship indicates a positive direction. This means that an increase in the value of religiosity, work culture and the use of information technology will increase the resilience of entrepreneurs. The results of this study support the research of Kim and Kim (2010), Ali et al (2013) who stated that work culture is an important aspect in building resilience. Another study conducted by Zinkin (2010) which states that Islam has values that are in accordance with resilience. The role of Islam also provides a broader and holistic perspective on one's values of resilience (Khurshid et al., 2014).

The improved test is to approve the Entrepreneur Resilience as mediating variable on religiosity and culture to Resilience of MSMEs. The p-value of each relationship are 0.001 and 0.035 less than 0.05. So, the **H10 and H11 are accepted**. The Entrepreneur Resilience has a significant effect in mediating Religiosity and cultural to MSME Resilience (Gunasekaran et al., 2011). Then, the Entrepreneur Resilience can be significant to mediating Use of Technology to Resilience of MSMEs, So **H12 is accepted**. It Approved by p-value is 0,000 (< 0.05). This research supports the research of Stockdale and Standing (2004) and (Gunasekaran et al., 2011).

This study also investigated whether entrepreneur resilience can mediate the influence of religiosity, culture, information technology and management characteristics on THE resilience of MSMEs. The existence of this mediation variable causes a total increase in the influence of religiosity, culture, management characteristics and information technology on the resilience of MSMEs. From the results of data processing, the resilience of entrepreneurs is expressed significant in mediating religiosity,

culture, management characteristics and the use of information technology to the resilience of MSMEs. If the direct influence of religiosity on the resilience of MSMEs is mediated by the resilience of entrepreneurs. The value of employer resilience shows its significance as a variable that mediates the influence of religiosity on the resilience of MSMEs. The amount of direct influence given by the value of religiosity on the resilience of MSMEs is 0.209 and the indirect influence is 0.174, the total influence of the value of religiosity on the resilience of MSMEs mediated by the value of entrepreneurial resilience is 0.383. Research that supports entrepreneur resilience can mediate the influence of religiosity on MSME resilience, including Chan et.al (2013) and Hunjra et.al (2020). Similarly, what happened to the value of the direct influence of information technology on MSME resilience mediated by entrepreneur resilience was 0.295, so the total influence of information technology on MSME resilience mediated by entrepreneur resilience was 0.725. It can be seen that the resilience of entrepreneurs as a mediation variable can increase the influence of information technology on the resilience of MSMEs. This research supports the research of Stockdale and Standing (2004) and (Gunasekaran et al., 2011).

# CONCLUSION

MSMEs are an important part of supporting the development of the country's economy. The diversity and large number of MSMEs that exist will further improve the economy. Like a corporate organization, for an MSME to remain resilient in the face of the turbulence of external conditions, several supporting aspects are needed, namely a good system, reliable management characteristics, confidence in the religiosity of business owners/managers, a well-built culture, and the use of information technology that supports business operations and product sales, so that MSMEs can achieve the expected conditions of resilience. The results showed that MSMEs in the food and beverage sector in Malang Raya can be said to be resilient MSMEs. The resilience of MSMEs is influenced by factors of religiosity, culture and the use of information technology.

The results showed that to increase the resilience of MSMEs, it is important for business actors to increase their religiosity, namely by believing that Islam is Allah's instruction and being confident in Allah's help in any condition; also by improving a good work culture such as building good work relationships, making clear job-desks and the existence of high responsibilities; as well as increasing the use of technology in the form of realizing the importance of the benefits of the internet and information technology and the use of e-marketplaces to support business operations and increase sales so that MSMEs become efficient (resilient). This research shows that entrepreneurial resilience is able to mediate the influence of religiosity on the resilience of MSMEs.

# REFERENCES

- Agustina, T., Jatmika, D., Asnawi, Wahab, A., & Rusvitawati, D. (2020). Pandemi Covid-19 : Mempercepat UMKM dalam Sistem Informasi. Seminar Nasional Sistem Informasi, 4(1), 2283–2291. https://jurnalfti.unmer.ac.id/index.php/senasif/issue/view/5
- 2) Arostegui, P., & Nieves, M. (2021). *Technological capabilities , resilience capabilities and organisational effectiveness*. https://doi.org/10.1080/09585192.2016.1216878
- 3) Beuren, I. M., dos Santos, V., & Theiss, V. (2021). Organizational resilience, job satisfaction and business performance. International Journal of Productivity and Performance Management. https://doi.org/10.1108/IJPPM-03-2021-0158
- 4) Bhamra, R., Dani, S., & Burnard, K. (2011). Resilience: The concept, a literature review and future directions. *International Journal of Production Research*, *49*(18), 5375–5393. https://doi.org/10.1080/00207543.2011.563826
- 5) Branicki, L. J., Sullivan-Taylor, B., & Livschitz, S. R. (2018). How entrepreneurial resilience generates resilient SMEs. International Journal of Entrepreneurial Behavior & Research, 24(7), 1244–1263. https://doi.org/10.1108/IJEBR-11-2016-0396
- 6) Cheong, C. W. H. (2021). Risk, resilience, and Shariah-compliance. *Research in International Business and Finance*, 55(August 2020), 101313. https://doi.org/10.1016/j.ribaf.2020.101313
- 7) Darwin, M., & Umam, K. (2020). Indirect Effect Analysis on Structural Equation Modeling (Comparative Study of Using Amos and SmartPLS Software). *Nucleus*, 50–57. https://doi.org/https://doi.org/10.37010/nuc.v1i2.160
- 8) Das, M., Rangarajan, K., & Dutta, G. (2020). Corporate sustainability in SMEs: an Asian perspective. *Journal of Asia Business Studies*, 14(1), 109–138. https://doi.org/10.1108/JABS-10-2017-0176
- 9) Dewi Amaliah Nafiati, & Mulyani, E. S. (2020). Resiliensi Usaha Mikro, Kecil, Menengah (UMKM) dan Kebijakan Pemerintah di Masa Pandemi Covid 19. *Jurnal Utilitas*, 6(2).
- 10) Du, X., & Zeng, Q. (2019). Bringing religion back in: Religious entrepreneurs, entrepreneurial gender, and bank loans in Chinese family firms. *Asian Review of Accounting*, *27*(4), 508–545. https://doi.org/10.1108/ARA-04-2018-0097
- 11) Fatoki, O. (2018). The impact of entrepreneurial resilience on the success of small and medium enterprises in South Africa.

Sustainability (Switzerland), 10(7). https://doi.org/10.3390/su1007252

- 12) Firmansyah, A. I. (2019). Pengaruh Pertumbuhan Usaha Mikro, Kecil, Dan Menengah Terhadap Pertumbuhan Ekonomi Di Tulungagung. *Pengaruh Pertumbuhan Usaha Mikro, Kecil, Dan Menengah Terhadap Pertumbuhan Ekonomi Di Tulungagung*, 53(9), 1689–1699.
- 13) Franco, M., Haase, H., & António, D. (2020). Influence of failure factors on entrepreneurial resilience in Angolan micro, small and medium-sized enterprises. *International Journal of Organizational Analysis*, 29(1), 240–259. https://doi.org/10.1108/IJOA-07-2019-1829
- 14) Goel, P., & Misra, R. (2020). It's not inter-religiosity but intra-religiosity that really matters in attitude towards business ethics: Evidence from India. *International Journal of Ethics and Systems*, *36*(2), 167–184. https://doi.org/10.1108/IJOES-10-2018-0153
- 15) Gunasekaran, A., Rai, B. K., & Griffin, M. (2011). Resilience and competitiveness of small and medium size enterprises: An empirical research. *International Journal of Production Research*, 49(18), 5489–5509. https://doi.org/10.1080/00207543.2011.563831
- 16) Hair, J. F. J., Sarstedt, M., Ringle, C. M., & Gudergan P., S. (2018). Advanced Issues in Partial Least Squares Structural Equation Modeling.
- 17) Hakim, L., Abdullah, I., Sa, N., Ekonomi, F., & Muhammadiyah, U. (2021). Karakteristik Budaya Organisasi : Sebuah Studi Kualitatif terhadap Pengusaha Batik Muslim Laweyan Surakarta. *Benefit: Jurnal Manajemen Dan Bisnis*, 6(2), 1–24.
- 18) Hari Adi, P., & Adawiyah, W. R. (2018). The impact of religiosity, environmental marketing orientation and practices on performance: A case of Muslim entrepreneurs in Indonesia. *Journal of Islamic Marketing*, 9(4), 841–862. https://doi.org/10.1108/JIMA-09-2016-0067
- 19) Hult, G. T. M. (n.d.). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM).
- 20) Khedhaouria, A., Nakara, W. A., Gharbi, S., & Bahri, C. (2020). The Relationship between Organizational Culture and Smallfirm Performance: Entrepreneurial Orientation as Mediator. *European Management Review*, 17(2), 515–528. https://doi.org/10.1111/emre.12383
- 21) Kumpfer, K. L. (1999). Factors and Processes Contributing to Resilience: The resilience framework. *Resilience and Development: Positive Life Adaptations*, 179–224.
- 22) Linnenluecke, M. K. (2017). Resilience in Business and Management Research: A Review of Influential Publications and a Research Agenda. *International Journal of Management Reviews*, *19*(1), 4–30. https://doi.org/10.1111/ijmr.12076
- 23) Madi Odeh, R. B. S., Obeidat, B. Y., Jaradat, M. O., Masa'deh, R., & Alshurideh, M. T. (2021). The transformational leadership role in achieving organizational resilience through adaptive cultures: the case of Dubai service sector. *International Journal of Productivity and Performance Management*. https://doi.org/10.1108/IJPPM-02-2021-0093
- 24) Malihah, E., Komariah, S., Wilodati, W., Munggaran, R. A., Utami, L., Rizkia, A., & Ahmad, Y. T. (2021). Penguatan Resilensi Perempuan Melalui Modal Sosial di Era Adaptasi Kebiasaan Baru Pandemi Covid-19. *Martabat: Jurnal Perempuan Dan Anak*, 5(2), 310–336. https://doi.org/10.21274/martabat.2021.5.2.310-336
- 25) Mariyati, L. I., & Chomsyatun, I. (2018). Resiliensi Pada Pengusaha UMKM Pasca Mengalami Kebangkrutan di Sidoarjo. Seminar Nasional Dan Call For Paper, 1, 216–231.
- 26) Morales, S. N., Martínez, L. R., Gómez, J. A. H., López, R. R., & Torres-Argüelles, V. (2019). Predictors of organizational resilience by factorial analysis. *International Journal of Engineering Business Management*, 11, 1–13. https://doi.org/10.1177/1847979019837046
- 27) Mulyani, D. A. E. S. (2020). Resiliensi Usaha Mikro , Kecil , Menengah ( UMKM ) dan Kebijakan Pemerintah di Masa Pandemi Covid 19. Jurnal Utilitas, 6(02), 1–8. https://journal.uhamka.ac.id/index.php/utilitas/article/view/5250
- 28) Nugraheni, S. S., & Nila, K. S. (2021). Analysis of MSMEs Women's Role Strategy in Economic Improvement in Ngantang (SWOT Analysis Approach). *Referensi Jurnal Ilmu Manajemen Dan Akuntansi*, *6*(1), 36–46. doi: 10.33366/ref.v6i1.984
- 29) Pal, R., Torstensson, H., & Mattila, H. (2014). Antecedents of organizational resilience in economic crises An empirical study of Swedish textile and clothing SMEs. *International Journal of Production Economics*, *147*(PART B), 410–428. https://doi.org/10.1016/j.ijpe.2013.02.031
- 30) Parry, G. (2015). Technological Capabilities , Resilience Capabilities and Organisational Effectiveness Technological Capabilities , Resilience Capabilities and Organisational Effectiveness.
- 31) Purwanto, A., Asbari, M., & Santoso, T. I. (2021). Analisis Data Penelitian Marketing: Perbandingan Hasil antara Amos, SmartPLS, WarpPLS, dan SPSS Untuk Jumlah Sampel Besar. *Journal of Industrial Engineering & Management Research*, 2(4), 216–227.
- 32) Rajesh, R. (2018). On sustainability, resilience, and the sustainable–resilient supply networks. Sustainable Production and

Consumption, 15, 74-88. https://doi.org/10.1016/j.spc.2018.05.005

- 33) Ramayah, T., Cheah, J., Chuah, F., Ting, H., & Memon, M. A. (2018). Partial least squares structural equation modeling (PLS-SEM) using SmartPLS 3.0: An updated guide and practical guide to statistical analysis (2nd ed.). In *Marketing Bulletin* (Pearson, Vol. 24, Issue 1).
- 34) Ringle, C. M., Da Silva, D., & Bido, D. D. S. (2014). Modelagem de Equações Estruturais com Utilização do Smartpls. *Revista Brasileira de Marketing*, *13*(2), 56–73. https://doi.org/10.5585/remark.v13i2.2717
- 35) Sachitra, V., & Siong-Choy, C. (2019). The moderating effect of religiosity on resource-capability-competitive advantage interaction: Empirical evidence from Sri Lankan agribusiness farm owners. *International Journal of Social Economics*, 46(5), 722–740. https://doi.org/10.1108/IJSE-08-2018-0414
- 36) Santoro, G., Bertoldi, B., Giachino, C., & Candelo, E. (2020). Exploring the relationship between entrepreneurial resilience and success: The moderating role of stakeholders' engagement. *Journal of Business Research*, 119(November), 142–150. https://doi.org/10.1016/j.jbusres.2018.11.052
- 37) Sarstedt, M., Hair, J. F., Ringle, C. M., & Liengaard, B. D. (2022). *Progress in partial least squares structural equation modeling use in marketing research in the last decade. September 2021*, 1035–1064. https://doi.org/10.1002/mar.21640
- 38) Sauser, B., Baldwin, C., Pourreza, S., Randall, W., & Nowicki, D. (2018). Resilience of small- and medium-sized enterprises as a correlation to community impact: an agent-based modeling approach. *Natural Hazards*, 90(1), 79–99. https://doi.org/10.1007/s11069-017-3034-9
- 39) Teng-Calleja, M., Hechanova, M. R. M., Sabile, P. R., & Villasanta, A. P. V. P. (2020). Building organization and employee resilience in disaster contexts. *International Journal of Workplace Health Management*, 13(4), 393–411. https://doi.org/10.1108/IJWHM-09-2019-0122
- 40) Tolner, F., Eigner, G., & Barta, B. (2021). Resilience Interpretations of Small and Medium-sized Enterprises and its Analytical Approaches Literature Review. *IEEE 19th World Symposium on Applied Machine Intelligence and Informatics, January 21*(SAMI 2021), 495–500.
- 41) Utomo, H. S. (2020). The Effect of Muslim Religiosity and Innovation Capability on Firm Survival: A Study on Small Enterprises During the Covid-19 Pandemic. *Iqtishadia*, *13*(2), 179. https://doi.org/10.21043/iqtishadia.v13i2.7626
- 42) Wikantiyoso, B., Riyanti, B. P. D., & Suryani, A. O. (2021). A Construction of Entrepreneurial Personality Tests: Testing Archetype Personality Inventory in Entrepreneurship. *International Journal of Applied Business and International Management*, *6*(1), 1–13. https://doi.org/10.32535/ijabim.v6i1.1085
- 43) Yousaf, S., & Tariq, M. (2020). Does technology orientation predict firm performance through firm innovativeness? https://doi.org/10.1108/WJEMSD-11-2019-0091



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