

Analysis of Human Competence Influence, Entrepreneurial Characteristics, Information Technology, Management Accounting System, and Environmental Uncertainty on the Performance of Micro, Small and Medium Enterprises (MSMEs) in Pasuruan City, Indonesia

Ahmad Khoiril Anam^{1*}, Mukhammad Alfian Darmawan², He Xiao Yin¹, Handy Aribowo²

¹School of Business, Zhengzhou University, Zhengzhou, China

²STIE IBMT, Surabaya, Indonesia

Email: *ahmadkhoirilanam@gs.zzu.edu.cn, alfiandarmawan99@gmail.com, hexiaoyin1@163.com, handy.aribowo@gmail.com

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Abstract

The performance of Micro, Small, and Medium Enterprises (MSMEs) is influenced by several factors such as increasing competence, having commitment and work ethic, using information technology, managing finances effectively, and adapting to situations and conditions. In this regard, the importance of human resource competence, entrepreneurial characteristics, understanding information technology, management accounting systems, and adapting to environmental uncertainty. Therefore, MSME players must improve their competence, have good entrepreneurial characteristics, use information technology, use management accounting systems, and adapt to the business environment. The purpose of this paper is to analyze the influence of human resource competence, entrepreneurial characteristics, information technology, management accounting systems, and environmental uncertainty on the performance of Micro, Small, and Medium Enterprises (MSMEs). The written results of this research use mixed method research with field research and sequential explanatory research models. The quantitative research sample was 255 respondents using a cluster sampling technique. Meanwhile, the qualitative research sample consisted of 6 informants using a purposive sampling technique. The type of data used is primary data, namely collecting data using questionnaires and secondary data in the form of documents and the results of interviews with informants to deepen the research results. The data analy-

sis used is multiple regression analysis using SPSS version 26.0 tools. The results of this research show that human resource competence has a positive effect on the performance of MSMEs. Entrepreneurial characteristics have a positive effect on the performance of MSMEs. Information technology has a positive effect on the performance of MSMEs. The management accounting system has a positive effect on the performance of MSMEs. Environmental uncertainty does not affect MSME performance. Human resource competencies, entrepreneurial characteristics, information technology, management accounting systems, and environmental uncertainty have a positive and simultaneous influence on the performance of MSMEs.

Keywords

Micro, Small, and Medium Enterprises (MSMEs), Information Technology, Human Resource Competence, and Entrepreneurial Characteristics

1. Introduction

The development of Small and Medium Enterprises (SMEs) in Indonesia is a top priority in national economic development. This is very important considering that small and medium businesses play a role in reducing the problems of social inequality, poverty, and unemployment. Apart from that, SMEs are businesses that can survive the global economic crisis. Its development can make a significant contribution to improving the regional economy and national economic resilience. In the era of free trade taking place in the ASEAN region, it is not easy for Micro, Small, and Medium Enterprises MSMEs to enter the export market. Therefore, adequate government support is needed to improve the performance and competitiveness of MSMEs. Several factors cause the low performance of MSMEs, including the majority of MSMEs still using traditional technology with low market share, being unable to fulfill administrative requirements to obtain assistance from banks, and dependence on the government tends to be large.

National economic development is not only the responsibility of the government but is a shared responsibility. The community is the main actor in development and the government plays a role in directing, guiding, and creating supporting facilities. For this reason, the government needs to develop MSMEs accompanied by the development of human resources, because HR is the most important factor in a company. Therefore, human resources must be managed well to increase the company's effectiveness and efficiency.

MSMEs in Pasuruan City are very different from other cities. This differentiating factor can be seen from the level of resilience of Pasuruan City MSMEs in facing the situation when hit by the COVID-19 virus outbreak. This causes an economic downturn at the city, provincial, national, and even global levels.

However, different things happen in the MSME sector, especially for MSME actors in Pasuruan City. MSMEs in Pasuruan City have their characteristics,

namely being able to elaborate traditional equipment with modern equipment. So, they can create innovations in creating products in the food, beverage, and service sectors.

The phenomenon in this research was obtained from Pasuruan City government data which shows that there is slow growth in gross regional domestic product in the Pasuruan City area from 2017 to 2021, as follows **Table 1**.

Based on the picture above, it can be seen that in Pasuruan City there is slow growth in gross regional domestic product which is caused by the performance of MSMEs. This will of course hurt the number of workers, poverty, and unemployment. However, the increasing development of MSMEs must be balanced with human resource development in various aspects. Improving the quality of human resources is very necessary, especially in the areas of human resource competency such as knowledge, skills, abilities, and attitudes in entrepreneurship. Human resource development must be carried out not only for business owners but also for their workers.

Human resource competency will directly or indirectly be the driving force of an MSME. Where you want to take a business and how keenly you look at the opportunities that exist are all determined by Human Resources. A paradigm shift has occurred, several decades ago the success of a business unit's performance was still predominantly caused by physical factors, but as time goes by this thinking is increasingly shifting and now the success of a performance is more dominantly influenced by non-physical factors (quality of human resources).

Another factor that influences MSME performance is entrepreneurial characteristics. Entrepreneurial characteristics possessed by individual owners of Micro, Small, and Medium Enterprises (MSMEs) are one of the factors that influence the success of the business undertaken. The characteristics of Micro, Small,

Table 1. Growth rate of gross regional domestic product in Pasuruan city.

Regency/City	2017	2018	2019	2020	2021
City					
Kediri	284,003	285,582	287,409	286,796	287,962
Blitar	139,995	140,971	141,876	149,149	150,371
Malang	861,414	866,118	870,682	843,810	844,933
Probolinggo	233,123	235,211	237,208	239,649	241,202
Pasuruan	197,696	199,078	200,422	208,006	209,528
Mojokerto	127,279	128,282	129,014	132,434	133,272
Madiun	176,099	176,697	177,007	195,175	196,917
Surabaya	2,874,699	2,885,555	2,896,195	2,874,314	2,880,284
Batu	203,997	205,788	207,490	213,046	214,653

Source: BPS (Badan Pusat Statistik) Pasuruan City, 2023.

and Medium Enterprises (MSMEs) that differentiate them from other businesses are determined by the personal characteristics of an entrepreneur. Entrepreneurial characteristics are defined as an ability to think creatively and behave innovatively which is used as a basis, resource, goal driver, strategy, and process in facing life's challenges (Maisaroh, 2019).

The characteristics of an entrepreneur influence the continuity of the business he is starting, whether the business will last long or not. An understanding of entrepreneurial characteristics is needed to assess technical and managerial competence in starting, developing, and sustaining a business. One indicator that influences the performance of MSMEs is the use of information technology. Utilization of information technology is the behavior or attitude of using technological information to complete tasks and improve performance. Information systems supported by information technology can provide added value for MSMEs if they are designed to be effective information systems. Effective use of technology can improve performance. This is by the Technology Acceptance Model (TAM). The Technology Acceptance Model states that the use of information technology can improve performance.

In the Industrial Revolution 4.0 era introduced by Professor Klaus Schwab, one of which is the use of information technology in every company, which has become a necessity in this era. Small and Medium Enterprises, which of course are also affected by the development of the Industrial Revolution 4.0, must follow the developments that occur. Due to the development of the global industrial revolution 4.0, the use of information technology must begin to be used by MSMEs in Pasuruan City.

One strategy to improve the performance of MSMEs in Pasuruan City is to use information technology. In this case, it is important to research whether the use of information technology will be able to improve the performance of MSMEs in Pasuruan City. The next factor that influences the performance of MSMEs is the use of a management accounting system. Accounting records are one of the components that Micro, Small, and Medium Enterprises (MSMEs) absolutely must have if they want to develop their business by applying for capital to creditors, in this case, the banks. Most Micro, Small, and Medium Enterprises (MSMEs) in Indonesia do not apply accounting in managing their business, because Micro, Small, and Medium Enterprises (MSMEs) do not realize how important accounting is to maintain and succeed in the business of Micro, Small, and Medium Enterprises (MSMEs) and to gain financial information.

The management accounting system has a very important influence on achieving business success because it can support the success of a business, including Micro, Small, and Medium Enterprises (MSMEs). An accounting system in the form of financial reports can be the basic capital for Micro, Small, and Medium Enterprises (MSMEs) for making decisions in managing their business, including decisions on market development, price development, and so on. About the government and creditors (banks), providing information is also necessary.

Environmental uncertainty is a condition outside the company that can affect company operations and disrupt management functions in planning and control (Isnaini, 2021). If environmental uncertainty is high, then the plans that have been prepared will be problematic, due to the manager's inability to predict conditions that will occur in the future. So, the control function will be affected by conditions of high uncertainty, resulting in hampered decision-making that affects a company's performance.

The objects used in this research writing are Micro, Small, and Medium Enterprises (MSMEs) in Pasuruan City. This research focuses on MSMEs such as food and beverages and MSMEs such as services.

Based on the background above, the problem formulation in this research is:

1) Do human resource competencies (X_1) partially influence the performance of MSMEs (Y) in MSMEs in Pasuruan City?

2) Do entrepreneurial characteristics (X_2) partially influence the performance of MSMEs (Y) in MSMEs in Pasuruan City?

3) Do information technologies (X_3) have a partial effect on the performance of MSMEs (Y) in MSMEs in Pasuruan City?

4) Do the management accounting systems (X_4) have a partial effect on the performance of MSMEs (Y) in MSMEs in Pasuruan City?

5) Do environmental uncertainties (X_5) partially influence the performance of MSMEs (Y) in MSMEs in Pasuruan City?

6) Do human resource competencies (X_1), entrepreneurial characteristics (X_2), information technologies (X_3), management accounting systems (X_4), and environmental uncertainties (X_5) simultaneously influence the performance of MSMEs (Y) in MSMEs in Pasuruan City? This research aims to analyze the partial and simultaneous influence of human resource competence (X_1), entrepreneurial characteristics (X_2), information technology (X_3), management accounting systems (X_4), and environmental uncertainty (X_5) on the performance of MSMEs (Y) to MSMEs in Pasuruan City.

2. Theoretical Review

2.1. Human Resource Competencies

Spencer defines competence as a basic human characteristic that from experience (visible from behavior) is found to influence or can be used to predict an individual's level of performance in the workplace or ability to overcome problems in certain situations (Zhaviery Fariz et al., 2019). According to the American Psychological Industry Organization, the competency movement began in the 1960s and early 1970s. Competency is the ability to carry out or carry out a job or task that is based on skills and knowledge and supported by the work attitudes required by the job. It can be concluded that competence is the ability possessed by each individual which is different from one another, aimed at achieving maximum performance in their work.

The indicators used include: 1) level of education, 2) experience in the busi-

ness world, 3) competence in managing finances, 4) competence in marketing, and 5) general managerial competence.

2.2. Entrepreneurial Characteristics

According to Zahara (2022), the characteristics of entrepreneurs are those who establish, manage, develop, and institutionalize their own companies. Entrepreneurial ability is the skill possessed by an entrepreneur in starting a business, managing a business, and developing a business with the characteristics of being willing to take risks, be initiative or creative, be future-oriented, and be responsible. It can be concluded that the characteristics of an entrepreneur are the attitudes or behavior of a person who can establish, manage, develop, and institutionalize his or her company has high motivation, and is risky in pursuing his goals. The indicators used include self-confidence and optimism, courage to take risks, commitment, work ethic, and an attitude of independence.

2.3. Information Technologies

According to Rahmasari (2019), Information technology can also be defined as a device or process that mediates or bridges communication from one person to another so that all existing forms of communication can be conveyed well. At this time, the role of information technology makes business competition increasingly open and intense. This technological development must be able to be utilized by business actors, to carry out business strategies, companies use information technology to facilitate company activities and be able to compete with competitors. It can be concluded that information technology is a design that is interrelated with the type of use and knowledge about a technology that can influence humans' ability to control and change things around them more easily. The indicators used include sophistication, usefulness, and effectiveness.

2.4. Management Accounting Systems

Hidayah, N., and Widyawati, D. (2016), define a management accounting system as a formal system designed to provide managers with the information needed to facilitate decision-making and evaluate managerial activities. Meanwhile, according to Firmansyah (2015), the management accounting system is an organizational control mechanism and is an effective tool in providing information that is useful for predicting the possible consequences of various alternative activities that can be carried out. It can be concluded that a management accounting system is an information system that meets certain management objectives which include the process of collecting, measuring, storing, analyzing, reporting, and managing information that can produce an output to meet the system's objectives. The indicators used include breadth, timeliness, aggregation, and integration.

2.5. Environmental Uncertainties

According to Adzima (2022), environmental uncertainty is a person's feeling of inability to predict future conditions precisely and accurately from all factors that can directly or indirectly influence a person's behavior in making decisions. It can be concluded that environmental uncertainty is a situation where a person does not have sufficient information about environmental conditions, which can lead to inability or difficulty in predicting environmental changes in the future and will have an impact on decreased performance. The indicators used include situation uncertainty, effect uncertainty, and answer uncertainty.

2.6. Human Resource Competencies

Aribawa (2016) states that the performance of MSMEs is the result of work achieved by an individual and can be completed with the individual's tasks within the company and in a certain period, and will be linked to the value measure or standard of the company the individual works for. According to Wahyudiati D. (2017), MSME performance is a work result achieved by a person or organization in carrying out the tasks assigned to them which are based on skill, experience, seriousness, and time. It can be concluded that good MSME performance in all sectors, including finance, production, distribution, and marketing, is an absolute requirement for MSMEs to continue to survive. With good performance, it is hoped that an MSME will become stronger as the backbone of the economy and will play an increasingly important role in the national economy. The indicators used include profit growth, growth in the number of customers, growth in the number of sales, and growth in the number of assets.

2.7. Framework

This research provides an overview of how human resource competencies, entrepreneurial characteristics, information technology, and management accounting systems influence the performance of MSMEs which are moderated by environmental uncertainty. There are 6 variables tested in this research (Figure 1).

Hypothesis

Based on the problem formulation and research objectives, the following hypothesis is formulated:

H1: Human resource competency (X_1) has a partial effect on MSME performance (Y).

H2: Entrepreneurial characteristics (X_2) partially influence the performance of MSMEs (Y).

H3: Information Technology (X_3) has a partial effect on MSME performance (Y).

H4: The management accounting system (X_4) has a partial effect on the performance of MSMEs (Y).

H5: Environmental uncertainty (X_5) has a partial effect on MSME performance

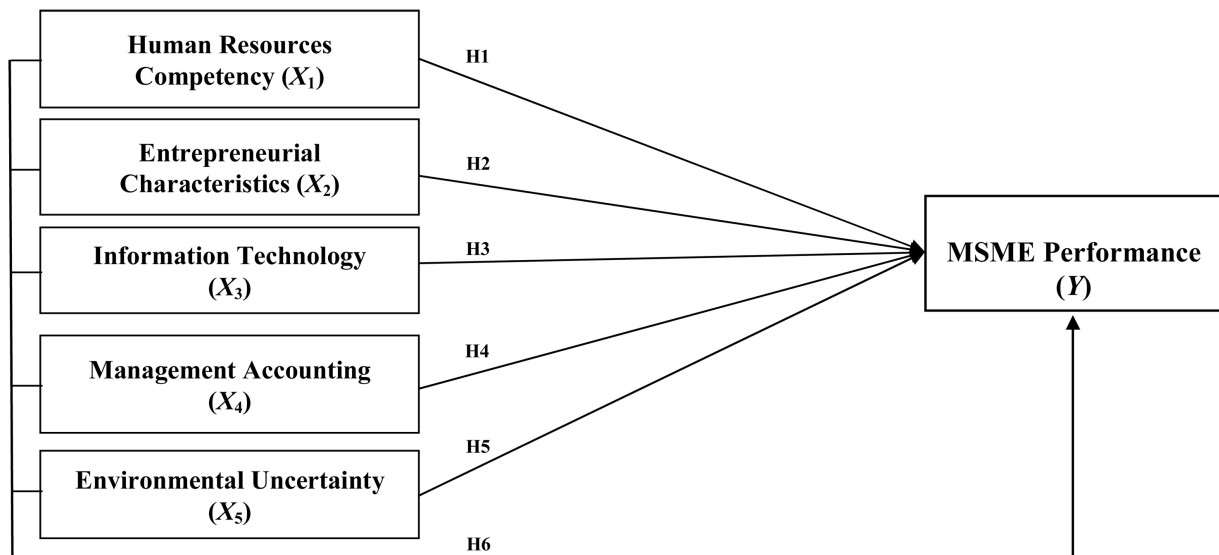


Figure 1. The theoretical framework of research.

(Y).

H6: Human resource competency (X_1), entrepreneurial characteristics (X_2), information technology (X_3), management accounting system (X_4), and environmental communication (X_5) simultaneously influence the performance of MSMEs (Y).

3. Methodology

This method combines quantitative and qualitative research methods sequentially, in the first stage the research is carried out using quantitative methods to collect quantitative data that can be measured which can be descriptive, comparative, and associative, in the second stage the research uses qualitative methods to prove, deepen, expanding, weakening and invalidating the quantitative data obtained in the first stage. In this research, researchers conducted field research to determine the performance of MSMEs in Pasuruan City. The approach used in this research is mixed methods. A mixed methods research design (mixed methods research design) is a procedure for collecting, analyzing, and “mixing” quantitative and qualitative methods in a study or series of research to understand problems in research using a research method model that combines quantitative and qualitative analysis of discovery (Sequential Explanation).

This research was conducted on Pasuruan City micro, small, and medium enterprises (MSMEs), types of food or drinks, and services that have been established or have had their business for at least 1 year.

3.1. Limitations

1) The objects to be researched are Micro, Small, and Medium Enterprises (MSMEs).

- 2) This research is only limited to the area of Pasuruan City.
- 3) The limitation of respondents is only MSMEs for food/beverage and service types.
- 4) The respondent is a business owner.
- 5) Respondents used as research objects are their businesses that have been established for at least 1 year.

3.2. Research Design

X in this method combines quantitative and qualitative research methods in sequence, wherein the first stage of the research is conducted by quantitative methods to collect measurable quantitative data that can be descriptive, comparative, and associative, then in the second stage, the study uses qualitative methods to prove, deepen, deepen, expanding, weakening and invalidating the quantitative data obtained in the first stage. This research was conducted on Pasuruan City micro, small, and medium enterprises (MSMEs), types of food or drinks, and services that have been established and have had their business for at least 1 year.

3.3. Quantitative Methods

Population and Sample

The population of this research is all MSME actors in the food and beverage and service types in Pasuruan City, spread across 4 sub-districts. The total population in this study was 946 business actors, all of whom were included in the MSME criteria for the types of food/drinks and services found in Pasuruan City, which was divided into 4 sub-districts, namely Gadingrejo sub-district, Panggunrejo sub-district, Purworejo sub-district, and Bugul Kidul sub-district. Sampling in this study used the help of the Isaac and Michael table with a tolerance value of 5% so that the total sample in this study was 255 MSMEs in food, beverage, and service types divided into 4 sub-districts in Pasuruan City. Data collection was carried out by distributing questionnaires to each MSME actor in Pasuruan City randomly or using a cluster sampling area technique.

3.4. Data Analysis Method

3.4.1. Validity Test

According to Sugiyono (2017), shows the degree of accuracy between the data that occurs on the object and the data collected by the researcher. Measuring the level of validity or not of a questionnaire using person values, where the requirements for the validity test used r ($r_{\text{count}} > r_{\text{table}}$) is declared valid. Where to get r_{table} is obtained through df (degrees of freedom) = $n - 2$ with a significance of 5% and n is the number of research samples. The validity value must have a total score value (total score from the questionnaire).

3.4.2. Reliability Test

According to Sugiyono (2017), reliability testing is the extent to which measurement results using the same object will produce the same data. Measuring

the reliability of items or question items once distributes the questionnaire to respondents, after which the score results are measured for correlation between answer scores on the same item or question item with the help of a computer program Statistical Program for Society Science (SPSS) with Cronbach Alpha (α) facilities. A variable is said to be reliable if it provides a Cronbach Alpha value > 0.60 .

3.4.3. Multiple Regression Analysis

Multiple regression analysis is used to determine whether there is a significant influence of two or more independent variables ($X_1, X_2, X_3, X_4, X_5, \dots, X_n$) on the dependent variable (Y). The formula is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \dots + \beta_n X_n$$

3.4.4. Hypothesis Test (t Test and F Test)

The t test is used to show how far one independent variable partially influences the variation in the dependent variable. Decision-making criteria are carried out by comparing t count with the t table, where the alternative hypothesis is accepted if: $t_{\text{count}} > t_{\text{table}}$ with a significance level of 0.05. To determine the t table value is done by first finding the degree df (degree of freedom) with the formula $df = n - k$, where n is the observation while k is the number of variables (free and dependent). The F test is also called the simultaneous significance test (simultaneous test).

The F test is a test used to test the magnitude of the influence of all independent variables together on the dependent variable. The F statistical test can be done by comparing F_{count} with F_{table} . If $F_{\text{count}} > F_{\text{table}}$ then the alternative hypothesis is accepted (the model is suitable for use), and vice versa. The real level used is 5%. In this study, a significance level (α) of 0.05% or 5% was used to test whether the hypothesis proposed in this study was accepted or rejected by testing the F value. If the F value is positive, it means the hypothesis is accepted, if the F value is negative, it means the hypothesis is rejected.

3.4.5. Analysis of the Coefficient of Determination (R^2)

Determination analysis is used to determine the percentage contribution of independent variables ($X_1, X_2, X_3, X_4, X_5, \dots, X_n$) simultaneously to the dependent variable (Y). This coefficient shows how large a percentage of the variation in the independent variable used in the model can explain the variation in the dependent variable. R^2 is equal to 0 so that there is not the slightest percentage contribution of influence given by the independent variable to the dependent variable. On the other hand, R^2 is equal to 1 so the percentage contribution of influence given by the independent variable to the dependent variable is perfect (Priyatno, 2016).

3.5. Qualitative Methods

3.5.1. Research Informant

Research informants are subjects who understand information about the re-

search object as actors or other people who understand the research object. Research informants are used as research subjects so they can provide the information needed during the research process (Mardian, 2016). This research was selected using purposive sampling. The research informant design used in this research consisted of:

1) Key informants, namely those who know and have various basic information needed in research. The key informant in this research was the head of the micro business sector of the Pasuruan City cooperative service, namely 1 representative.

2) The main informants are those who are directly involved in the social interactions being studied. In this research, the main informants were all food, drink, and service MSME actors in Pasuruan City, represented by 1 MSME actor in each sub-district, totaling 4 people.

3) Additional informants are those who can provide information even though they are not directly involved in the social interactions being studied. Additional informants in this research were the secretary of the head of the Pasuruan City cooperative service, namely 1 representative.

3.5.2. Research Focus

The research focus contains an explanation of the dimensions that will be discussed in depth and thoroughly (Mardian, 2016). In this case, the research focus can develop or change according to developments in research problems in the field but remains focused on MSME performance problems in Pasuruan City.

3.5.3. Data and Data Sources

Data is information about a research object. There are two data in a study, namely primary data and secondary data. The main data sources in qualitative research are words and actions, the rest is additional data such as documents, photos, and so on (Mardian, 2016). Primary data in this research was obtained from interviews with informants regarding human resource competencies, entrepreneurial characteristics, information technology, and management accounting systems regarding their influence on performance which is moderated by environmental uncertainty. Meanwhile, secondary data was obtained from documentation studies related to the number of MSMEs for types of food, beverages, and services in Pasuruan City.

3.5.4. Data Collection Technique

The qualitative data collection method that is most independent of all data collection methods and data analysis techniques is the in-depth interview method, participant observation, and documentary material (Mardian, 2016). This research uses a structured interview method, namely using an interview guide that has been prepared systematically based on performance analysis for MSME actors. The results of the interviews were used to support and strengthen the results of the first stage of research calculations which used quantitative methods.

3.5.5. Data Validity

To validate qualitative research data, researchers used triangulation techniques. The triangulation technique is defined as a data collection technique that combines various data collection techniques and existing data sources. With the triangulation technique, the researcher simultaneously tested the credibility of the data (Sugiyono, 2016). Triangulation technique used in research.

This is source triangulation, namely getting data from different sources with the same technique. Different sources include interviews with key informants, main informants, and additional informants to produce a valid conclusion.

3.5.6. Qualitative Data Analysis Techniques

According to Sugiyono (2016), qualitative data analysis is the process of systematically searching and compiling data obtained from interviews, field notes, and documentation, by organizing data into categories, describing it into units, synthesizing it, organizing it into patterns, choosing what is important and what to study, and making conclusions so that they are easily understood by themselves and others. This research uses the qualitative data analysis model from Miles and Huberman (in Sugiyono, 2016) which includes three things, namely: 1) data reduction, 2) data presentation, and 3) conclusion.

4. Results and Discussion

4.1. Quantitative Research Results

4.1.1. Validity Test

Based on the data from Table 2, testing the validity of the research instrument (questionnaire) with each question asked to the respondent getting a value of $r_{\text{count}} > r_{\text{table}}$, so that the entire research instrument is said to be valid.

4.1.2. Reliability Test

In Table 3, it can be seen that the results of the reliability test showed that all variables have a fairly large alpha coefficient, namely above 0.60, so it can be said that all the measuring concepts for each variable from the questionnaire are

Table 2. Validity test results.

Variable	Range R value calculated	R value table	Description
Human Resources Competency	0.326 - 0.961	0.113	Valid
Entrepreneurial Characteristics	0.252 - 0.916	0.113	Valid
Information Technology	0.531 - 0.855	0.113	Valid
Management Accounting System	0.543 - 0.952	0.113	Valid
Environmental Uncertainty	0.896 - 0.972	0.113	Valid
MSME Performance	0.800 - 0.958	0.113	Valid

Source: Primary data processed by Researchers, 2023.

Table 3. Reliability test results.

Variable	Cronbach's Alpha Value	Standard Value	Description
Human Resources Competency	0.969	0.60	Reliable
Entrepreneurial Characteristics	0.924	0.60	Reliable
Information Technology	0.821	0.60	Reliable
Management Accounting System	0.977	0.60	Reliable
Environmental Uncertainty	0.972	0.60	Reliable
MSME Performance	0.976	0.60	Reliable

Source: Primary data processed by Researchers, 2023.

reliable, which means that the questionnaire used in this research is reliable.

4.1.3. Multiple Regression Analysis

Based on **Table 4** data, the results of multiple regression analysis are obtained as follows:

$$Y = -12.040 + 0.410X_1 + 0.377X_2 + 0.348X_3 + 0.176X_4 + 0.005X_5$$

Explanation of the results of multiple regression analysis as follows:

1) Constant -12.040

The constant value is -12.040 , which means that MSME performance which consists of the variables of human information resource competence, entrepreneurial characteristics, technology, management accounting systems, and environmental communication has a negative relationship with MSME performance. If the variables of human resource competence, entrepreneurial characteristics, information technology, management accounting system, and environmental efficiency are zero, then the performance of MSMEs is -12.040 . So, it can be concluded that with the variables of human resource competency, entrepreneurial characteristics, information technology, management accounting system, and environmental uncertainty, the performance of MSMEs will be positive.

2) Human Resources Competency Regression Coefficient Value (b_1) = 0.410

This means that the human resource competency variable influences MSME performance by 0.410 or has a positive effect on MSME performance, which means that if the human resource competency variable increases by 1%, then MSME performance will increase by 0.410%. On the other hand, if human resource competency decreases by 1%, the performance of MSMEs will decrease by 0.410%.

3) Entrepreneurial Characteristics Regression Coefficient Value (b_2) = 0.377

This means that the entrepreneurial characteristic variable influences MSME performance by 0.377 or has a positive effect on MSME performance, which means that if the entrepreneurial characteristic variable increases by 1%, then MSME performance will increase by 0.377%. On the other hand, if entrepreneurial characteristics decrease by 1%, the performance of MSMEs will decrease

Table 4. Multiple regression analysis results.

Model	Coefficients ^a		
	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
(Constant)	-12.040	3.398	
Human Resources Competency	0.410	0.044	0.487
Entrepreneurial Characteristics	0.377	0.129	0.155
Information Technology	0.348	0.153	0.085
Management Accounting System	0.176	0.026	0.286
Environmental Uncertainty	0.005	0.050	0.003

a. Dependent Variable: MSME Performance

Source: SPSS data processed by Researchers, 2023.

by 0.377%.

4) Information Technology Regression Coefficient Value (b_3) = 0.348

This means that the information technology variable influences the performance of MSMEs by 0.348 or has a positive effect on the performance of MSMEs, which means that if the information technology variable increases by 1%, then the performance of MSMEs will increase by 0.348%. On the other hand, if information technology decreases by 1%, the performance of MSMEs will decrease by 0.348%.

5) Management Accounting System Regression Coefficient Value (b_4) = 0.176

This means that the management accounting system variable influences MSME performance by 0.176 or has a positive effect on MSME performance, which means that if the management accounting system variable increases by 1%, then MSME performance will increase by 0.176%. On the other hand, if the management accounting system decreases by 1%, the performance of MSMEs will decrease by 0.176%.

6) Environmental Uncertainty Regression Coefficient Value (b_5) = 0.005

This means that the environmental uncertainty variable has an effect on the performance of MSMEs by 0.005 or has a positive effect on the performance of MSMEs, meaning that if the environmental uncertainty variable increases by 1% then the performance of MSMEs will increase by 0.005%. On the other hand, if environmental uncertainty decreases by 1%, the performance of MSMEs will decrease by 0.005%.

4.1.4. t Test

The coefficient results are carried out through hypothesis testing and then compared with the t table, where the t table is using the formula $df = n - k$, where n = number of samples while k is the number of variables (independent and dependent) (Table 5).

Table 5. t test analysis results.

Coefficients ^a			
	Model	t	Sig.
	(Constant)	-3.543	0.000
	Human Resources Competency	9.334	0.000
1	Entrepreneurial Characteristics	2.924	0.004
	Information Technology	2.275	0.024
	Management Accounting System	6.783	0.000
	Environmental Uncertainty	0.094	0.925

a. Dependent Variable: MSME Performance

Source: SPSS data processed by Researchers, 2023.

The sample in this research is MSME actors in the Pasuruan City area, a sample of 255 respondents with $\alpha = 0.05$ so the t table is 1.96860. So, from the results of each variable, it can be seen which variables influence employee performance as follows:

H1: Test the hypothesis of human resource competency on MSME performance

From the calculation results it is known that the t_{count} is 9.334 which is greater than the t_{table} which is 1.96860 with a significance of 0.000 which is smaller than the significance level of 0.05. So, it can be concluded that H1 is accepted and H0 is rejected, this means that the human resource competency variable partially has a positive and significant effect on the performance of MSMEs. In other words, human resource competency can improve the performance of MSMEs in the Pasuruan City area.

H2: Test the hypothesis of entrepreneurial characteristics on MSME performance

From the calculation results it is known that the t_{count} is 2.924 which is greater than the t_{table} which is 1.96860 with a significance of 0.004 which is smaller than the significance level of 0.05. So, it can be concluded that H2 is accepted and H0 is rejected, this means that the variable entrepreneurial characteristics partially have a positive and significant effect on the performance of MSMEs. In other words, entrepreneurial characteristics can improve the performance of MSMEs in the Pasuruan City area.

H3: Test the information technology hypothesis on MSME performance

From the calculation results it is known that the t_{count} is 2.275 which is greater than the t_{table} which is 1.96860 with a significance of 0.024 which is smaller than the significance level of 0.05. So, it can be concluded that H3 is accepted and H0 is rejected, this means that the information technology variable partially has a positive and significant effect on the performance of MSMEs. In other words, information technology can improve the performance of MSMEs in the Pasu-

ruan City area.

H4: Test the management accounting system hypothesis on MSME performance

From the calculation results it is known that the t_{count} is 6.783 which is greater than the t_{table} which is 1.96860 with a significance of 0.000 which is smaller than the significance level of 0.05. So, it can be concluded that H4 is accepted and H0 is rejected, this means that the management accounting system variable partially has a positive and significant effect on the performance of MSMEs. In other words, the management accounting system can improve the performance of MSMEs in the Pasuruan City area.

H5: Test the hypothesis of environmental competition on MSME performance

From the calculation results it is known that the t_{count} is 0.094 which is smaller than the t_{table} which is 1.96860 with a significance of 0.925 which is greater than the significance level which is 0.05. So, it can be concluded that H5 is rejected and H0 is accepted, this means that the environmental uncertainty variable partially has a positive and insignificant effect on the performance of MSMEs. In other words, environmental closures are unable to improve the performance of MSMEs in the Pasuruan City area.

4.1.5. F Test

The ANOVA results were carried out through hypothesis testing and then compared with F_{table} , where to find F_{table} using the formula $df_1 = k - 1$ and $df_2 = n - k$, where n = number of samples while k is the number of variables (independent and dependent). The sample in this research is MSME actors in the Pasuruan City area, the sample size is 255 respondents with $\alpha = 0.05$, so the F_{table} is 2.25.

Based on **Table 6**, it can be seen that the results of the F test calculation show that the F_{count} is 152.594. This means that F_{count} (152.594) is greater than F_{table} (2.25) and the significance value is 0.000 which is smaller than the significance level of 0.05. So, it can be concluded that H6 is accepted and H0 is rejected, this means that the variables of human resource competence, entrepreneurial characteristics, information technology, management accounting systems, and environmental uncertainty simultaneously have a positive and significant effect on the performance of MSMEs among MSMEs in the Pasuruan City area.

4.1.6. Analysis of the Coefficient of Determination (R^2)

Judging from **Table 7** of results of the analysis of the coefficient of determination above, the R Square figure is 0.754% or 75.4%, which means that variations in MSME performance variables can be explained by the variables of human resource competence, entrepreneurial characteristics, information technology, management accounting systems, and environmental uncertainty, the remainder is 24.6% can be explained by other variables outside the research variables.

Table 6. F test analysis results.

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	15204.984	5	3040.997	152.594	0.000 ^b
1	Residual	4962.248	249	19.929		
	Total	20167.231	254			

a. Dependent Variable: MSME Performance

b. Predictors: (Constant), Human Resources Competency, Entrepreneurial Characteristics, Information Technology, Management Accounting System, and Environmental Uncertainty

Source: SPSS data processed by Researchers, 2023.

Table 7. Analysis of the coefficient of determination (R^2) results.

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.868 ^a	0.754	0.749	4.46416	1.978

a. Predictors: (Constant), Human Resources Competency, Entrepreneurial Characteristics, Information Technology, Management Accounting System, and Environmental Uncertainty

b. Dependent Variable: MSME Performance

Source: SPSS data processed by Researchers, 2023.

So, it can be concluded that on the performance of MSMEs, the influence of human resource competency variables, entrepreneurial characteristics, information technology, management accounting systems, and environmental uncertainty is 75.4%.

4.2. Quantitative Research Results

Informant Characteristics

1) IK

IK is male. IK is 167 cm tall and has yellow skin and short, straight hair. Having a neat appearance with a relaxed and serious speaking style is one of the characteristics of IK. He is the Head of the Micro Business Division of the Pasuruan City Cooperative Service. Researchers began to get to know IK when looking for data on the performance of MSMEs in the Pasuruan City area. IK is always happy to help by providing information and data regarding the performance of MSME players during their busy lives.

2) IU 1

IU 1 is male. IK is 163 cm tall, white-skinned, short hair, some brown. A fast and loud speaking style is one of the characteristics of IU 1. IU 1 is the owner of

MM Café Pasuruan. Located on Jl. KH. Ahmad Dahlan, RT 5 RW 2 Mancilan Village, Purworejo District, Pasuruan City.

3) IU 2

IU 2 is male. IU 2 is 176 cm tall and has sweet black skin and short hair. A loud and relaxed speaking style is one of the characteristics of IU 2. IU 2 is the owner of Warkop Cangkir Songo. Addressed at Jl. Patiunus, RT 2 RW 2 Krampyangan Village, Bugul Kidul District, Pasuruan City.

4) IU 3

IU 3 is male. IU 3 is 178 cm tall and has brown skin and short hair. A slow and smooth speaking style is one of the characteristics of IU 3. IU 3 is the owner of Resto Ikan Bakar Makmi. Addressed at Jl. Hangtuh No. 97, RT 1 RW 9 Ngemplakrejo Village, Panggungrejo District, Pasuruan City.

5) IU 4

IU 4 is male. IU 4 is 169 cm tall and has dull white skin and short hair. The loud and slow speaking style is one of the characteristics of IU 4. IU 4 is the owner of Catering Bu Luluk. Addressed at Jl. Gatot Subroto, RT 3/RW 2, Kel. Krapyakrejo, District. Gadingrejo, Pasuruan City.

6) IT

IT is a man. He is 165 cm tall, brown skin, and short hair. Having a neat appearance with a slow and gentle speaking style is one of the characteristics of IT. He is the Secretary of the Pasuruan City Cooperatives and Micro Enterprises Service. Researchers started to get to know IT a long time ago when they collaborated on an activity at NU. It is always happy to help by providing information, direction, and data that researchers need.

4.3. The Influence of Entrepreneurial Characteristics on MSME Performance

Based on Results of the Regression

The data that researchers obtained from the field was data from observations and interviews with MSME actors in Pasuruan City (Figure 2).

5. Research Discussion

5.1. The Influence of Human Resource Competency on MSME Performance

Based on the results of regression analysis testing, it show that the Human Resource Competency variable has the most significant influence on the MSME performance variable (Sig. = 0.000 < 0.05). So, the first hypothesis is accepted. So, human resource competence influences the performance of MSMEs.

5.2. The Influence of Entrepreneurial Characteristics on MSME Performance

Based on the results of regression analysis testing, it show that the Entrepreneurial Characteristic variables have the most significant influence on MSME

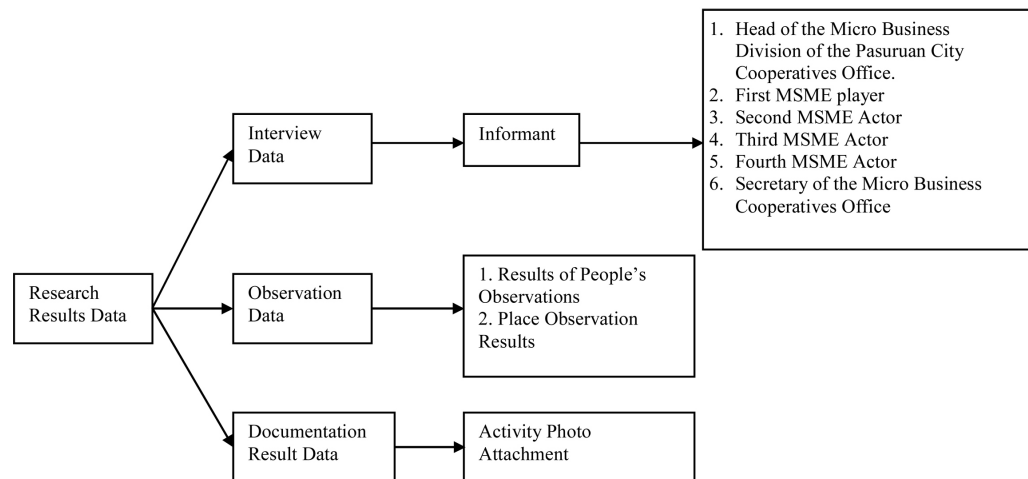


Figure 2. The theoretical framework of research.

performance variables (Sig. = 0.004 < 0.05). So, the second hypothesis is accepted. So, entrepreneurial characteristics influence the performance of MSMEs.

5.3. The Influence of Information Technology on MSME Performance

Based on the results of regression analysis testing, it show that the Information Technology variables have the most significant influence on MSME performance variables (Sig. = 0.024 < 0.05). So, the third hypothesis is accepted. So, information technology influences the performance of MSMEs.

5.4. The Influence of Management Accounting Systems on MSME Performance

Based on the results of regression analysis testing, it shows that the Management Accounting System variables have the most significant influence on the performance variable of MSMEs (Sig. = 0.000 < 0.05). So, the fourth hypothesis is accepted. So, the management accounting system influences the performance of MSMEs.

5.5. The Effect of Environmental Uncertainty on MSME Performance

Based on the results of the regression analysis test, it show that the Environmental Uncertainty variables do not have a significant influence on the work performance variable (Sig. = 0.925 > 0.05). So, the fifth hypothesis is rejected. So, environmental uncertainty does not affect the performance of MSMEs.

5.6. The Influence of Human Resource Competencies, Entrepreneurial Characteristics, Information Technology, Management Accounting Systems and Environmental Uncertainty on MSME Performance

Based on the results of the regression analysis test in the Anova test table, it

shows that the variables of human resource competence, entrepreneurial characteristics, information technology, management accounting systems, and environmental uncertainty have the most significant influence simultaneously on the MSME performance variable (Sig. = 0.000 < 0.05). So, the sixth hypothesis is accepted. So, human resource competence, entrepreneurial characteristics, information technology, management accounting systems, and environmental uncertainty simultaneously influence the performance of MSMEs.

6. Conclusions and Recommendations

6.1. Conclusions

The population of this research is Headings, or heads, which are organizational devices that guide the reader through your paper. There are two types: component heads and text heads.

1) Human resource competency partially influences the performance of MSMEs. Based on the results of the t test, a significance value of 0.000 is obtained, which is smaller than the significance level of 0.05.

2) Entrepreneurial characteristics partially influence the performance of MSMEs. Based on the results of the t test, a significance value of 0.004 was obtained, which is smaller than the significance level of 0.05.

3) Information technology has a partial effect on the performance of MSMEs. Based on the results of the t test, a significance value of 0.024 was obtained, which is smaller than the significance level of 0.05.

4) The management accounting system partially influences the performance of MSMEs. Based on the results of the t test, a significance value of 0.000 is obtained, which is smaller than the significance level of 0.05.

5) Environmental uncertainty does not partially influence the performance of MSMEs. Several factors cause environmental uncertainty to not affect MSME performance. In the recapitulation results of respondents' answers, a mean of 2.69 was obtained. Based on these figures, it can be said that respondents are still hesitant to say that environmental uncertainty can affect the performance of MSMEs. And based on the results of the t test, a significance value of 0.925 was obtained which was greater than the significance level of 0.05.

6) Human resource competency, entrepreneurial characteristics, information technology, management accounting systems, and environmental uncertainty simultaneously influence the performance of MSMEs. This is proven by the results of the F test which shows a significance value of 0.000 which is smaller than the significance level of 0.05.

6.2. Recommendations

1) For the Department of Cooperatives & Micro Enterprises of Pasuruan City
 a) The Pasuruan City cooperative and micro-enterprise department is expected to hold training or workshops to increase human resource competency, coaching for MSME players who still have low entrepreneurial characteristics, and

training on the use of information technology as a means of product promotion for Pasuruan City MSME players.

b) The Pasuruan City Cooperative and Micro Business Department is expected to be able to have a management accounting system that can be socialized and implemented by Pasuruan City MSMEs in managing their business finances.

c) The Pasuruan City cooperative and micro-enterprise department is expected to always support MSMEs who cannot adapt to the environment.

2) For Micro, Small, and Medium Enterprises (MSMEs) in Pasuruan City.

a) Pasuruan City MSMEs are expected to be able to improve their competencies or skills, develop a more competitive entrepreneurial character in improving their business performance, and see more effective use of information technology to be able to create a competitive advantage over their competitors, which will later have more value in their business performance.

b) Pasuruan City MSMEs are expected to be accustomed to using an application-based management accounting system as a means of managing their business finances so that they are systematic, structured, and transparent in managing finances.

c) Pasuruan City MSMEs are expected to be able to adapt to the conditions or situations of the business world so that they can maintain their businesses.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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