



ICT and Entrepreneurial Orientation as Drivers of SME Performance: Insights from Padang Pariaman Regency, Indonesia

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ABSTRACT

This study aims to empirically examine the impact of the implementation of information communication and technology (ICT) and entrepreneurship orientation on the performance of SMEs in Padang Pariaman Regency, West Sumatra province of Indonesia. This research uses purposive sampling with a sample of 100 SMEs registered at the Department of Cooperatives and SMEs, Padang Pariaman Regency. The data collection method used in this study was a survey. Questionnaires were distributed by visiting SMEs to their place of business directly. The results empirically prove that ICT and entrepreneurship orientation have a significant effect on the performance of SMEs. This research only uses two independent variables, so it needs additional mediating or moderating variables, such as innovation and learning orientation. Likewise, the respondents of this study were only SMEs in Padang Pariaman Regency with various types of businesses. It is suggested that further research expands research objects such as the provincial level with one SME business. The implementation of ICT can provide benefits for the performance of SMEs in developing businesses and also to be globally competitive. Likewise, entrepreneurship orientation has a significant relationship with improving the performance and level of competitiveness of SMEs.

1. Introduction

The use of information and communication technology (ICT) in small to medium-scale enterprises (SMEs) is very important for socio-economic development, especially (Yunis et al., 2017). In today's modern global market, the use of ICT can increase the competitive advantage of SMEs (Mustafa, 2015; Rahayu & Day, 2017; Tob-Ogu et al., 2018; Zafar & Mustafa, 2017). In developing countries, the use of ICT is relatively low compared to developed countries (Napitupulu et al., 2018; Rahayu & Day, 2017). In the year 2020, SMEs in Indonesia experienced a decline in income due to the Covid-19 pandemic. Not only that, but the Covid-19 pandemic has also given a negative impact on the Indonesian economy. One

of the SMEs in Indonesia that has also been affected by the Covid-19 pandemic is the West Sumatran SME. The SMEs in West Sumatra have increased every year, but there was a decline after the pandemic arrived in the West Sumatra region. As can be seen in Table 1, during the year 2020-2021, the SMEs in some regencies in West Sumatra province such as in Pasaman, Padang Pariaman, Padang Panjang, Sawahlunto, and South Solok Regencies suffered a decline in income during the pandemic.

Table 1. Income of West Sumatra Regency and City SMEs 2020-2021

No.	Regency/City	Revenue		Selling deduction %
		2020	2021	
1	Pasaman	99.434,39	75.280,55	24%
2	Padang Pariaman	164.924,95	88.949,11	46%
3	Padang Panjang	84.234,95	51.247,10	39%
4	Sawahlunto	57.792,13	38.657,30	33%
5	Solok Selatan	84.082,86	81.956,51	2%

Source: government agency performance accountability reports West Sumatra 2021

Padang Pariaman Regency was the regency with a very significant decrease in income by 46% compared to others. Thus, this becomes a huge concern for the Padang Pariaman government to maximize its capability that exists in the entire villages in the regency. According to the 2022 Indonesian Tourism Village Award (ADWI) Data, the villages in Padang Pariaman Regency are among of the top 50 Indonesian tourist villages. So more serious attention is needed in order to make SMEs become income-productive platforms during the Covid-19 pandemic. One of the efforts of increasing the income of SMEs is adopting the application of ICT by the SMEs. This is because the implementation of ICT can improve the performance of SMEs. Several studies have proven that ICT affects the performance of SMEs in several countries such as Malaysia (Ong et al., 2020; Isa et al., 2021), Lebanon (Yunis et al., 2017), Nigeria (Okundaye et al., 2019) and in Indonesia (Lailah & Soehari, 2020; Fatimah & Azlina, 2021). The results of his research state that the use of ICT requires entrepreneurs to be more innovative, not only offering unique products but also being able to apply the latest technology in their business processes. In addition to ICT, entrepreneurial orientation is also something that can affect the performance results of SMEs. According to (Al Mamun et al., 2017), entrepreneurial orientation is a creative effort to produce SMEs innovations, have added value, provide benefits, creates jobs, and are useful to others. SMEs with an entrepreneurial orientation are expected to be able to compete in innovation and have information systems, knowledge, organizational management, and human resources. The implication is important for SMEs to develop an entrepreneurial orientation and innovation in enhancing their capabilities of SMEs and achieving sustainability and business growth, especially in today's highly competitive dynamic business environment (Demartini & Beretta, 2020; Monteiro et al., 2017).

According to a survey conducted by INDEF in 2024, 50 percent of small and medium-sized enterprises (SMEs) have used the e-commerce application Shopee to operate their businesses online in the past year. This indicates that SME operators have become increasingly familiar with leveraging e-commerce platforms for sales. In addition to Shopee, other popular platforms among SMEs include Facebook Marketplace (33.46 percent), Instagram Shop (28.74 percent), and TikTok Shop (20.87 percent). Additionally, about 17.32 percent of SMEs run online businesses through food delivery service applications. Overall, the impact of digitalization following COVID-19 has positively influenced SMEs as they transition from offline to online operations. This shift is evident in the increase in workforce numbers and the average annual revenue generated after adopting digital tools. Notably, 24.42 percent of SMEs in this category reported an increase in their workforce, with 71.43 percent of them hiring up to two additional

employees. Regarding revenue, 88.37 percent of offline-to-online SMEs experienced a rise in annual income, with 66.28 percent reporting an increase of up to 50 percent after utilizing online platforms (INDEF, 2024, p. 25).

Research on entrepreneurial orientation in small and medium enterprises in Indonesia has been widely studied (Mustikowati & Tysari, 2015; Wardi et al., 2017; Ilham, 2018; Anggraini et al., 2020; Anggrini, et al., 2023, Anggraini, et al 2024). SME performance. There is very little research on ICT implementation and entrepreneurial orientation on the performance of SMEs. Lailah & Soehari (2020) examined the effect of innovation, information technology, and entrepreneurial orientation on business performance in the Glodok market SME. This research is important because of the limited number and scope of previous research and does not comprehensively discuss current problems. Therefore, it is necessary to carry out further research from previous research that focuses on SMEs during the Covid-19 era in Padang Pariaman Regency, West Sumatra Province. The purpose of this study is to analyze the effect of implementing ICT implementation and entrepreneurial orientation on the performance of SMEs in the Pariaman Padang Regency. It is hoped that these findings will promote the importance of using ICT as a contributing factor to improving the performance of SMEs in the Padang Pariaman Regency. Thus, this research answers one of the government's efforts in fostering SMEs towards the digitalization of SMEs as the key to business competitiveness and Indonesia's economic recovery.

2. Literature Review

2.1 Resource-Based View of the Firm

This study is based on the theoretical framework of dynamic capabilities, which evolved from the resource-based view (RBV) perspective. The Resource-Based View (RBV) theory highlights that a company's competitive advantage relies on its resources and ability to manage them effectively. (Barney, 1991). Resources that are valuable, rare, difficult to imitate, and non-substitutable (often referred to as VRIN) enable companies to attain and maintain superior performance. The RBV theory also indicates that information and communication technology (ICT) and entrepreneurial orientation (EO) do not function independently as factors influencing the performance of small and medium enterprises (SMEs). Instead, they act as complementary resources and capabilities. When SMEs in Padang Pariaman successfully integrate ICT with a strong entrepreneurial orientation, they significantly enhance their potential to achieve superior and sustainable performance. The resource-based view (RBV) theory highlights that a company's competitive advantage relies on its resources and ability to manage them effectively. Resources that are valuable, rare, difficult to imitate, and non-substitutable (often referred to as VRIN) enable companies to attain and maintain superior performance. The RBV theory also indicates that information and communication technology (ICT) and entrepreneurial orientation (EO) do not function independently as factors influencing the performance of small and medium enterprises (SMEs). Instead, they act as complementary resources and capabilities. When SMEs in Padang Pariaman successfully integrate ICT with a strong entrepreneurial orientation, they significantly enhance their potential to achieve superior and sustainable performance.

2.2 Classification of SMEs Based on Regulations in Indonesia

The classification of micro, small, and medium enterprises (MSMEs) in Indonesia plays a crucial role in supporting economic growth and promoting equitable welfare distribution. Based on Law No. 20 of 2008, the categorization of MSMEs considers several aspects, such as asset value, annual revenue, and the number of workers. This classification not only serves to map business potential but also provides a foundation for the government to formulate targeted policies, including access to financing, incentives, and business development programs Table 1.

Table 1. Classification of MSMEs (Micro, Small, and Medium Enterprises) in Indonesia

Criteria	Micro Enterprise	Small Enterprise	Medium Enterprise
Assets	Up to IDR 50 million	IDR 50 million to IDR 500 million	IDR 500 million to IDR 10 billion
Annual Revenue	Up to IDR 300 million	IDR 300 million to IDR 2.5 billion	IDR 2.5 billion to IDR 50 billion
Number of Workers	1 to 4 workers	5 to 19 workers	20 to 99 workers

This classification helps the government design targeted policies and programs to support the growth of businesses according to their specific needs. The classification of businesses into micro, small, and medium categories highlights differences in management structure, market reach, and operational scale. Micro businesses are typically run by individuals or families and lack a formal management framework. In contrast, small businesses have basic management structures and mainly focus on serving local markets. Medium businesses, on the other hand, have more complex organizational setups, employ a larger workforce, and often engage in export activities.

2.3 Entrepreneurial Orientation Dimensions Entrepreneurial orientation (EO)

Entrepreneurial Orientation (EO) refers to the strategic approach of an organization that enhances its ability to innovate, take risks, and actively seek market opportunities (Lumpkin & Dess, 1996). EO is vital for improving business performance, competitiveness, and long-term sustainability. It reflects how businesses engage in entrepreneurial practices, such as generating new ideas, anticipating market trends, and embracing uncertainty. In dynamic environments, a strong EO enables companies to remain adaptable and agile, fostering growth and innovation. The concept of EO is generally divided into several key dimensions: innovativeness, risk-taking, proactiveness, competitive aggressiveness, and autonomy. Innovativeness highlights a company's commitment to developing new products or services, while risk-taking indicates a willingness to invest in uncertain ventures. Proactiveness involves anticipating future market needs, and competitive aggressiveness refers to the intensity with which a business competes with its rivals. Lastly, autonomy emphasizes the ability of individuals or teams within the organization to make independent decisions. Together, these dimensions shape how entrepreneurial behaviors are expressed and implemented across various business contexts.

2.4 The Effect of ICT on SMEs' Performance

The use of information and communication technology (ICT) offers companies significant opportunities to reduce costs and increase production, thereby helping improve performance (Alam & Mohammad Noor, 2009). Many authors have addressed the factors that determine the performance of SMEs (Małkowska & Uhruska, 2022). As a result, his literature on the impact of ICT on performance is extensive, showing positive and significant effects (Onileowo & Fasiku, 2021; Chege et al., 2020). According to Yunis et al. (2017) ICT helps companies increase productivity and market share. ICT has many benefits for companies introducing new products and services, including being more customer-oriented and responding better to market changes. With the dynamic capabilities of entrepreneurs, ICT is an efficient and innovative tool. Isa et al. (2021) ICT can also be used in business by using electronic commerce which involves buying and selling processes including e-commerce and m-commerce. Previous literature shows that most studies focus on one dimension of ICT, namely e-commerce (Kurnia et al., 2015; Turban, 2010; Zaremohzzabieh et al., 2015) which involves buying and selling processes. ICT is popular all over the world today which includes broadband, mobile, and internet, to do business from anywhere and anytime. Thus, ICT is now the main

business strategy to improve the performance of SMEs (Etemad et al., 2010; Ong et al., 2020, Anggraini., et al., 2024). Based on the description above, the first hypothesis in this study is as follows:

H₁: There is an effect of ICT implementation on the performance of SMEs.

2.5 *The Effect of Entrepreneurship Orientation on SMEs' Performance*

Entrepreneurial orientation is a principle that is owned by a company that is oriented to be a pioneer and superior to competitors, (Zehir et al., 2015). Entrepreneurial orientation is one of the factors that influence business performance because it has an important role in business success (Prieto, 2010). Meekawekunchorn et al., (2021) stated that entrepreneurial orientation (EO) is described as a key factor in a company's competitive advantage, growth, and performance. Several studies have proven that entrepreneurial orientation with dimensions such as innovation, proactivity, risk-taking, and aggressiveness affects business performance (Anggraini et al., 2020; Hussain Haider, 2017; Oni et al., 2019; Kiyabo & Isaga, 2020; Runyan et al., 2006). Entrepreneurship orientation is individual behavior within the organization including innovation, proactivity, and risk-taking which helps organizational performance (Isichei et al., 2020; Dankiewicz et al., 2020; Kramoliš & Dobeš, 2020; Lumpkin & Dess, 1996). Particularly in SMEs, Entrepreneurship orientation deals with internal organizations to achieve superior performance, SMEs must be innovative and proactive (Ključnikov et al., 2019), also in an international context (Głodowska et al., 2019, Anggraini et al., 2024). Besides that, entrepreneurship orientation can be obtained by increasing the use of technological developments in business processes such as Isichei et al. (2020) and Lumpkin & Dess (1996). Research on entrepreneurship orientation and SME business performance such as Lailah & Soehari (2020); Mustari et al. (2021); Zarefar et al. (2021) and Pramesti & Giantari, (2016) have proven that entrepreneurial orientation can improve the performance of SMEs in Indonesia. Based on the description above, the second hypothesis in this study is as follows:

H₂: There is an influence of entrepreneurial orientation on the performance of SMEs.

3. **Research Methods**

The population of this study comprises SMEs located in Padang Pariaman Regency West Sumatra. A sample of 100 SMEs was selected from the database maintained by the Office of Cooperatives and SMEs in West Sumatra Province. The purposive sampling method was used, allowing the researcher to intentionally choose business units that are relevant to the research focus. This approach was applied because the selected SMEs share specific characteristics, such as adopting digital innovations or particular business strategies, which align with the research objectives. By employing purposive sampling, the researcher ensures that the selected sample provides meaningful insights regarding the phenomenon under investigation.

The criteria determined by the first researcher are SMEs registered with the West Sumatra Provincial Cooperative and SME Service. Second, SMEs that implement ICT in running business activities. Data collection was conducted through a survey method using structured questionnaires. The questionnaire aimed to gather information on information and communication technology (ICT), entrepreneurial orientation (EO), and SMEs performance in Padang Pariaman Regency. To improve the response rate, the questionnaires were distributed directly to respondents. The data collection period lasted three months, from February 2023 to April 2023.

The study utilized the Partial Least Squares (PLS) method using SmartPLS 3.0 software for data analysis. PLS was chosen for its flexibility, as it does not require normality assumptions and can accommodate small sample sizes (Hair et al., 2011). Moreover, PLS is well-suited for testing conceptual frameworks and examining relationships between constructs (Hair et al., 2014).

3.1 SME Performance

Fatimah & Azlina (2021) stated that entrepreneurial performance is a measure of the level of success of an SME. The questionnaire used in this study was adopted by Mukoffi & As'adi (2021) and Pramesti & Giantari (2016). A total of 14 question items using a Likert scale weighted from strongly agree (5) to strongly disagree (1).

3.2 Information Communication and Technology

ICT is a digital platform that generates opportunities for entrepreneurial activity by utilizing tools such as the internet, mobile technology, and social computing Ngoasong & Michael (2015). The number of information communication technology questions are 19 items related to the frequency of use of ICT in the organization, its integration with business and work processes, and the support it provides in managerial decision-making and task completion. The questionnaire used in this study was adapted from Agarwal & Prasad (1998), Davis et al. (1989) and Rogers (1995) using a Likert scale weighted from strongly agree (5) to strongly disagree (1).

3.3 Entrepreneurship Orientation

Entrepreneurship orientation is behavior and trend that aims to focus on exploiting, identifying, seizing, and creating opportunities through utilizing and enhancing knowledge and experience (Li et al., 2022; Simsek & Heavey, 2011). The questionnaire used in this variable was adopted from the study (Al-Jinini & Khalid, 2018) which consisted of eighteen questions using a five-point Likert scale from the range of Strongly Agree (5) to Strongly Disagree (1). Entrepreneurial orientation is measured through five dimensions, namely: First, innovation refers to the presentation of new ideas, experiments, creative practices, and procedures, and the exploitation of new opportunities that result in the development of new products, services, and technological processes. It is therefore measured through the development of five question items based on relevant studies (Buli, 2017; Li et al., 2022; Azmi et al., 2013; Monteiro et al., 2017); and Sok et al., 2017). Second, autonomy refers to the independence given to employees to explore new ideas and the delegation of authority to participate in the decision-making process. Four question items were developed with reference to (Li et al, 2022; Azmi et al., 2013; Monteiro et al., 2017). Third, risk-taking aims at taking bold actions of uncertainty and the desire to commit substantial resources to explore in an uncertain environment with the possibility of failure, almost dealing with calculated risks. This scale consists of three question items developed with reference to previous studies (Azmi et al., 2013; Buli, 2017; Li et al, 2022; Monteiro et al., 2017; Sok et al., 2017). Fourth, competitive aggressiveness refers to the intensity of competition, being ahead of other competitors by having the ability to outperform them. Finally, proactivity refers to a firm's ability to actively identify and exploit market opportunities before its competitors.

4. Results and Discussion

The process of distributing questionnaires is carried out directly to the respondents. The number of returned questionnaires was 100 which were processed in this study. Table 2 explained of the 138 questionnaires distributed, 128 (93%) were returned, but 10 (7.2%) were damaged or incomplete. A total of 100 questionnaires (72.5%) were processed for analysis, ensuring valid and representative data.

Table 2 Details of Questionnaire Collection

No	Description	Amount	Percentage
1	Number of Questionnaires Distributed	138	100
2	Number of Questionnaires Returned	128	93 %
3	Number of Questionnaires Not Returned	18	13 %
4	Number of Questionnaires Damaged/Incomplete	10	7.2 %
5	Number of Questionnaires Processed	100	

The profile of respondents who answered the questionnaire based on Table 3 was dominated by female respondents with a total of 61 people or 61.0%, compared to 39 men or 39.0% with a small age of 26 to 35 years. Judging from the level of education, most of them graduated from high school. Based on the type of business managed, SMEs are dominated by the type of culinary business and at least the type of creative product business. In the ICT technology business, 79 generally use m-commerce, and 21 e-commerce.

Table 3. Demographics of Respondents

Demographic data	Frequency (N)	Percentage (%)
Business Position		
Owner	24	24.0
Staff	76	76.0
Business Length		
< than 2 years	13	13.0
3 to 5 years	41	41.0
6 to 8 years	24	24.0
9 years and over	22	22.0
Level of education		
Junior high school	0	-
Senior high school	88	88.0
Diploma	1	1.0
Bachelor	11	11.0
Postgraduate	0	-
Age		
< 35 years	40	40.0
36 - 45 years	48	48.0
46 - 55 years	6	6.0
> 56 years	6	6.0
Sex		
Male	39	39.0
Female	61	61.0
Kind of Business		
Culinary	33	33.0

Fashion	22	22.0
Automotive	10	10.0
Tour & Travel	7	7.0
Creative products	6	6.0
Beauty	15	15.0
Electronic	7	7.0
ICT technology used		
e-commerce	21	21.0
m-commerce	79	79.0

4.1 Descriptive Statistics of Research Variables

Descriptive statistical analysis provides an overview or description of the average (mean), standard deviation, maximum, and minimum of the research variables. Based on the results of descriptive statistics for each variable are shown in Table 4. The results of data processing show that the standard deviation of information communication technology (ICT) variable is 9.12 greater than the performance of SMEs with a value of 6.52. This indicates that the respondents are very good at developing an information communication technology (ICT), while the performance of SMEs has a moderate influence.

Table 4. Descriptive Statistics of Research Variables

Variables	N	Theoretical range	Actual range	Mean	Std. Deviation
Information Communication Technology (ICT)	100	19-95	59-95	77	9.12
Entrepreneurship orientation	100	18-90	43-90	66.5	8.44
SMEs performance	100	14-70	43-70	56.5	6.52

4.2 Measurement Model Assessment

Convergent validity is a measurement of indicator validity as a measure of variables that can be seen from the outer loading, Cronbach alpha, composite reliability, and average variance extracted. Based on the results of data processing that has been carried out, a summary of the examiners is obtained as follows in Table 5:

Table 5. Convergent Validity

Constructs	Factor Loading	Cronbach's Alpha	Composite Reliability	AVE
<i>Rule of thumb</i>	>0.7	>0.7	>0.7	>0.5
<i>Information Communication and Technology (ICT)</i>		0.921	0.933	0.558
Information communication technology needs to be integrated into business processes (e-commerce) (ICT.1)	0.702			
It is necessary to increase internet network speed as a component of information	0.757			

technology (ICT.12)				
Business profits increase due to the use of information and communication technology (ICT.13)	0.768			
Save time and resources by using IT.(ICT14)	0.726			
Providing a fast response to consumers because it uses IT (ICT.15)	0.767			
M-commerce makes purchases and payments using applications on smartphones (ICT.17)	0.785			
The use of information and communication technology must be owned by entrepreneurs (ICT.3)	0.760			
Often uses information communication technology and information systems (ICT.4)	0.743			
Interested in using the latest information technology to improve business (ICT.5)	0.754			
Interest in increasing knowledge in the field of information and communication technology (ICT.8)	0.711			
Enthusiastic in seeking the latest technology for business (ICT.9)	0.742			
<i>Entrepreneurship Orientation</i>		0.869	0.901	0.604
Managers tend to take on high-risk projects. (EO.10)	0.849			
Our company identifies and exploits opportunities to deliver new products. (EO.11)	0.853			
The company undertakes large-scale actions to achieve its goals. (EO.12)	0.876			
The company introduces a new product to the market at a very low price with the aim of improving its competitive position. (EO.13)	0.708			
Our company strives to improve its competitive position through timely launches of new products. (EO.14)	0.758			
Managers practice their leadership through providing new products and services to the market (EO.16)	0.826			
Our company offers more new products than their competitors. (EO.17)	0.803			
Our company emphasizes the importance of creating new innovative products. (EO.18)	0.766			
<i>Performance</i>		0.923	0.937	0.651
I need high productivity (P.10)	0.75			
I need to produce better business	0.782			

performance than business competitors. (P.11)	
I need consistent market growth. (P.12)	0.756
In general, I need business performance to always improve (P.14)	0.800
I am satisfied that increasing job growth can accelerate regional economic growth (P.8)	0.733
I require high efficiency in operations. (P.9)	0.839

Table 5 of instrument testing, it is known that eleven statements supporting the ICT variable have a factor loading between 0.702-0.785. Each of these statements has had a factor loading exceeding the cut of 0.70. It was concluded that all statements used in measuring the ICT variable were declared valid. In addition, the results of the construct reliability test, the value of Cronbach's alpha is 0.923 and the composite reliability value is 0.937. Each of these coefficients has been above the cut of 0.70. In the data processing process, it was also found that the average extracted variance (AVE) value obtained was above 0.50. Therefore, it can be concluded that all statements used in measuring the variables of this study are declared to meet the criteria. Furthermore, the results of the convergent validity are used for further testing. The discriminant validity analysis aims to ensure that each statement used to measure the researcher's variables is appropriate and feasible. Measurement of discriminant validity can be done using methods including the Fornell-Larcker criterion (Table 6). Based on the criteria, each cross-loading variable must be above 0.70. So, it can be concluded that all latent variables have good discriminant validity and convergent validity.

Table 6. Discriminant Validity Test Results

	ICT	SMEs performance	Entrepreneurship orientation
Information Communication Technology (ICT)	0.747		
SMEs performance	0.728	0.777	
Entrepreneurship orientation	0.705	0.694	0.807

4.3 Structural Model Assessment

The structural assessment model is used to see the relationship between latent variables and other latent variables. Based on the results of data processing that has been carried out, the results of the structural assessment model are as follows in Figure 1:

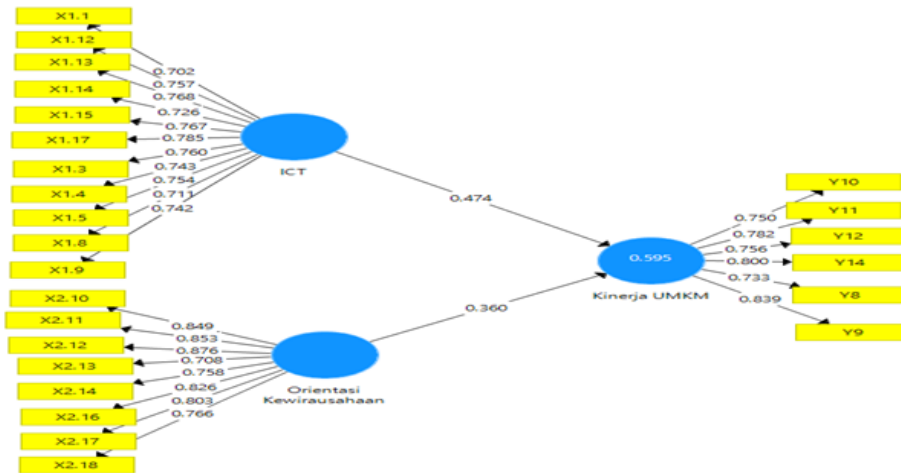


Figure 1. Output SmartPLS

The R-square results of this study can be seen in Table 7 with a value of 0.595 which means that the magnitude of the influence of ICT and orientation on the performance of SMEs is strong.

Table 7. R-Square Test Result

	R Square	R Square Adjusted	Relationship
SMEs performance	0.595	0.587	Strong

4.4 Hypothesis Test Results

A structural model or inner model is used to test the hypothesis, namely the influence between latent variables that can be seen from the coefficient and significance parameters. Table 8 below is the result of the hypothesis testing.

Table 8. Hypothesis Testing Results

Model	Original Sample	Sample Mean	Standard Deviation	T Statistics	P-Values	Hypothesis Results
ICT→P	0.474	0.487	0.102	4.652	0.000	H1 accepted
EO→P	0.360	0.357	0.109	3.315	0.001	H2 accepted

4.5 The Effect of ICT on the Performance of SMEs

Based on the results of testing the first hypothesis with a P-value of 0.000, it can be explained that there is a significant influence of ICT on the performance of SMEs. The results of this study indicate that the application of ICT is able to provide benefits for the performance of SMEs in developing businesses. The results of this study are consistent with previous studies by (Fatimah, & Azlina, 2021; Isa et al., 2021; Okundaye et al., 2019; Ong et al., 2020). This proves that the use of ICT in SMEs in Padang Pariaman Regency requires a creative process that explores new technologies to create added value for customers and

encourage small and medium enterprises to compete and excel globally. The use of the benefits of information technology for business activities will be able to improve business performance because, in modern times like today, entrepreneurial actors must be able to follow societal trends with technological sophistication in order to compete and survive in business (Lailah & Soehari, 2020).

Line with research (Liliana & Yuliana, 2014) stated technology can also reduce costs in business activities, especially for SMEs to allocate and save their budget for other uses. ICT encompasses all forms of technology used to convey, capture, create, manipulate, exchange, present, and use information in all its forms. By using data-driven decision-making and promoting innovation, ICT gives businesses a competitive edge and the ability to grow, (Lailah & Soehari, 2020). It also lowers costs, improves customer engagement, and leads to higher satisfaction and loyalty. Additionally, ICT allows small and medium-sized enterprises (SMEs) to compare their performance with competitors and find ways to improve. However, for SMEs to fully enjoy these benefits, they need to invest in employee training and skill development to ensure the efficient use of ICT resources for sustained growth and success.

ICT must be in line with the goals of SMEs. According to Yunis et al. (2017), investment in ICT cannot be done separately from the strategy, direction, mission, and goals of the organization. Managing ICT resources to improve SME performance and achieve competitive advantage requires an organizational culture that can assist in identifying, assessing, and taking advantage of this opportunity. On the one hand, the innovative use of ICT resources can provide new venues for the development of new products, services, and business models.

In addition, ICT resources should be well scrutinized for current and future opportunities for a higher level of competitiveness. Thus, the relationship of ICT to the performance of SMEs guarantees strategic steps in SMEs for efforts aimed at realizing the strategic goals of SMEs. The difference in the results of research conducted by Mukoffi & As'adi (2021) states that ICT does not have a significant effect on the performance of SMEs.

The findings of this study contribute to the understanding of ICT adoption by showing that ICT serves as a strategic enabler. It enhances customer engagement, satisfaction, and loyalty while aiding businesses in benchmarking performance and identifying areas for improvement. For small and medium-sized enterprises (SMEs) to fully capitalize on these benefits, investing in employee training and skill development is essential to ensure the sustainable use of ICT resources. This aligns with the Resource-Based View (RBV), which suggests that ICT can be a valuable asset that drives competitive advantage when integrated with an organization's goals, strategies, and culture (Yunis et al., 2017).

In practical terms, aligning ICT usage with business strategies improves performance, fosters innovation, and creates opportunities for new products, services, and business models. SMEs should regularly evaluate both current and future ICT opportunities to remain competitive. However, as highlighted by Mukoffi & As'adi (2021), the effectiveness of ICT can vary due to contextual factors such as differences in management practices, infrastructure, and organizational readiness. This underscores the necessity for a strategic approach to ICT integration.

4.6 *The Effect of Entrepreneurship Orientation on SME Performance*

Based on the results of testing the second hypothesis with a P-value of 0.001, it can be explained that there is a significant influence of entrepreneurial orientation on the performance of SMEs. The results of this study are consistent with previous studies (Lailah & Soehari, 2020; Mustari et al., 2021; Pramesti & Giantari, 2016; Zarefar et al, 2021). The results of this study indicate that a high entrepreneurial orientation is characterized by a strong will, the courage to take risks, and also have creativity in running their business.

The implication is that with entrepreneurial orientation, SME players in the Padang Pariaman district balance existing competitors and can also provide an overview of the risks that will be faced. Therefore, entrepreneurial orientation has an important relationship in improving the performance and level of competition of SMEs. The entrepreneurial orientation emphasizes decision-making methods that include innovation, being proactive, and daring in taking risks. SMEs that have an entrepreneurial orientation will be skilled in assessing consumer needs and may be the first to offer goods or services in the market to make line and brand extensions to market share. In contrast to the research conducted by Pamungkas et al (2021) and (Mustafa, 2015) who obtained the results that entrepreneurial orientation had no effect on entrepreneurial performance. The study emphasizes the importance of an entrepreneurial mindset for small and medium-sized enterprises (SMEs), indicating that SMEs need to adopt proactive, innovative, and risk-taking strategies to enhance their performance and competitiveness in the market. These traits allow SMEs in Padang Pariaman to compete effectively, anticipate risks, and adapt to market demands, highlighting the importance of entrepreneurial orientation in enhancing performance and market positioning.

Theoretical implications indicate that an entrepreneurial orientation can enhance innovative decision-making, proactive market engagement, and strategic risk-taking. This approach allows small and medium-sized enterprises (SMEs) to anticipate consumer needs and gain an early advantage in the market through product or brand extensions. Practically, SMEs that adopt this mindset can improve their competitiveness and adaptability, positioning themselves as market leaders.

5. Conclusion, Recommendations, and Research Implications

This study provides empirical evidence that the use of ICT affects the performance of SMEs in the Padang Pariaman Regency. The results of this study indicated that the application of ICT is able to provide benefits for the performance of SMEs in developing businesses. The findings indicate that the implementation of ICT can provide benefits for the performance of SMEs in developing businesses. The benefits of using ICT for business activities will be able to improve business performance because, in today's sophisticated era, SMEs must be able to follow societal trends with technological sophistication in order to compete and survive in business. In addition, this study empirically proves that entrepreneurial orientation has a significant effect on the performance of SMEs in the Padang Pariaman Regency. These finding states that a high entrepreneurial orientation is characterized by a strong willingness, the courage to take risks, and also have creativity in running their business.

The implication is that with entrepreneurial orientation, SMEs can keep pace with existing competitors and can also provide an overview of the risks that will be faced. Therefore, entrepreneurial orientation has an important relationship in improving the performance and level of competition of SMEs. The implementation of ICT has a significant impact on the performance of MSMEs. These findings indicate that adopting ICT can benefit SMEs in business development, which is positively reflected in their performance.

The advantages of using ICT in business activities are that it can enhance business performance. In today's advanced technological era, SMEs must be able to keep up with societal trends by leveraging technology to remain competitive and sustain their business. In the future, research should focus on identifying the specific types of ICT tools and applications that can best improve the performance of SMEs. Additionally, there is a need for long-term studies to understand the effects of implementing ICT on the long-term sustainability of businesses. It is also important to investigate the challenges and obstacles that SMEs encounter when adopting ICT, as well as the role of government policies and support systems in facilitating the integration of ICT. This knowledge will provide valuable insights for optimizing the use of ICT in this sector.

The suggestions for future research are expected to increase the number of respondents and expand the research area such as the provincial level, and add other variables that can affect the performance of SMEs such as corporate entrepreneurship, intellectual capital. The limitation of this study is that it only uses two variables that affect the performance of SMEs. In addition, the number of respondents is only 100 respondents. Focusing only on SMEs in Padang Pariaman Regency only.

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Conflict of interest statement

The authors assert that there are no ongoing conflicts of interest.

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