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The Relation Between The Intensity of Market Competition, Intellectual Capital, Management Accounting Practices in Coventional and Digital SME

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intensity market competition, intellectual capital, management accounting practices, business performance, conventional and digital SME.

ABSTRACT
This study investigates the difference of the impact of external and internal environment on the use of management accounting practices between conventional and digital SMEs. The use of management accounting practices assists the SMEs to make good decision. The aim of the study to test the relationship between intensity of market competition (external environment) and intellectual capital (internal environment) on the use of management accounting practices, so that the SMEs leverage their performance. The population of this research is conventional and digital SMEs in East Java. This study uses the convenience method as a sampling technique. The data collection results are 179 SMEs consisting of 127 conventional and 52 digital SMEs. The test results with SMART-PLS show that (1) the intensity of market competition has a positive effect on intellectual capital both conventional and digital SMEs, (2) intellectual capital has a positive effect on traditional MAP and on contemporary MAP both conventional and digital SMEs, (4) traditional MAP has a positive effect on business performance in conventional SMEs, and (5) contemporary MAP has no effect on business performance in digital SMEs.

INTRODUCTION

Small and medium enterprises (SMEs) are the most vulnerable sectors during the COVID-19 pandemic. The implementation of community activity restricted (PPKM) imposed by the government to overcome the pandemic problem is the leading cause of business closures by SMEs. 50% of SMEs in Indonesia experienced temporary and permanent closures during the PPM implementation. 30.9% of SMEs experience permanent closure [1]. This closure must be done because there is no income to cover operational costs [2]. This issue has attracted the government's attention by issuing a direct cash transfer policy for SMEs. This cash transfer is empirically proven to help SMEs maintain their business. Some SMEs can even increase their turnover. This indicates that SMEs still need intervention from the government. The question is how SMEs independently maintain their business sustainability during this pandemic.

The transformation of technology from conventional to digital is one factor that can help SMEs' resilience. During the pandemic, SMEs use digitalization in marketing and e-commerce innovations [3]. Digitalization is one of the factors that give SMEs the ability to survive. This study divides SMEs into two groups: conventional and digital. Conventional SMEs are SMEs that carry out their business activities conventionally. Consumer order acceptance activities have used social media, such as Whatsapp, Line, IG, Facebook, and others. Receipt of payments from consumers is usually via bank transfer. Digital SMEs utilize e-commerce, so the digitization process is for activities ranging from inbound to outbound logistics. This grouping aims to investigate the ability of SMEs to maintain their business during the pandemic.

The pandemic is not the only challenge faced by SMEs. The intensity of market competition is an external factor in testing the resilience of SMEs. Katadata shows the competition index in Indonesia during 2018 - 2021 in Figure 1 below [2].

The business competition index in Figure 1 above is 1-7. A score of 1 (7) indicates a low (high) level of competition. The business competition index before the pandemic, namely in 2018 and 2019, had a score of 4.64 and 4.73, which means the level of competition was relatively high. In 2020, the business competition index decreased compared to 2019, which was 4.65. This decrease was because, in 2020, Indonesia experienced a COVID-19 pandemic which forced the government to impose PPKM. The business competition index increased relatively high in 2021 by 4.81, which shows the business competition index is relatively high. This means that economic conditions are heading back to normal because the pandemic can be overcome through mandatory vaccines for the community.

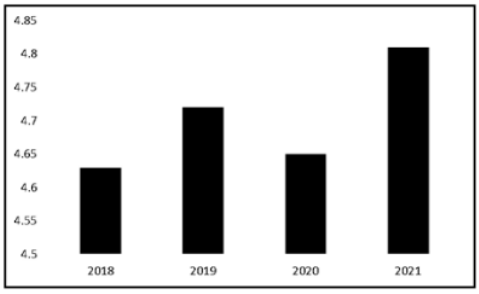

Figure 1. Business Competition Index in Indonesia

Business competition is a contingency factor that SMEs cannot avoid. Contingency theory states that external factors drive internal processes within the organization to confirm. This compatibility between external and internal factors is the key to organizational success [4].

This study uses the intensity of market competition as a contingency factor. Meanwhile, intellectual capital and management accounting practices represent the company's internal processes. Intellectual capital is an asset owned by SMEs derived from the company's internal processes. This is based on the concept of dynamic capability view (DCV) [5]. DCV considers that organizational capabilities are formed internally and evolutionarily. The formation of this organizational capability uses intellectual capital. Intellectual capital is an intangible asset owned by an organization. Intellectual capital has three dimensions: human capital, organizational capital, and relational capital [6]. Human capital is the core of SMEs, represented in their perpetrators or owners and the individuals within them. Organizational capital is the ability of SMEs to manage their organizations, including the determination of vision and mission, strategies, and so on. Relational capital is the ability of SMEs to establish external networks, including: associations, banks, and so on.

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Previous studies are still limited in examining the relationship between the intensity of market competition and intellectual capital. Previous studies tend to examine the role of intellectual capital during the pandemic [7]–[9]. The results of these studies conclude that intellectual capital provides an organization's ability to be flexible in dealing with times of crisis caused by the pandemic. Therefore, this study develops a model based on the results of previous studies. Intellectual capital in SMEs is formed and grows "forcefully" by the conditions of market competition. SMEs with high intellectual capital will be better able to face the intensity of market competition than SMEs with low intellectual capital.

Management accounting practice is the second internal process used in this research model, in addition to intellectual capital. Management accounting practice is a set of management accounting methods used to support decision-making. Management accounting practices (MAP) are divided into two groups: traditional and contemporary. Traditional MAP is a management accounting method that focuses on cost control, for example overhead cost allocation (BOP) at predetermined rates, budgeting, analysis of variance, and so on. At the same time, contemporary MAP is a management accounting method that focuses on providing added value for consumers, for example, BOP allocation based on activity, value-added activity analysis, quality cost analysis, and others. Several previous studies have tested the use of MAP in SMEs. The previous studies show that SMEs in Indonesia tend to use traditional MAP compared to contemporary ones. The most widely used management accounting method is BOP allocation with predetermined rates and budgets for planning [10], [11].

Previous research that has examined the relationship of intellectual capital to management accounting practices is still limited. Previous research has shown that intellectual capital positively influences contemporary MAP [12]. Companies with high intellectual capital adopt financial and non-financial performance measurements and apply them beyond budgeting. [13] show that intellectual capital influences MAP conceptually. The company's investment in intellectual capital is experiencing evolutionary growth to be able to face the external environment. Therefore, the use of MAP must be adjusted to the development of intellectual capital.

Using both traditional and contemporary MAP will support SMEs in their business decision-making. The accuracy of this business decision-making is expected to impact the business performance of SMEs positively. Several previous studies have proven that the use of MAP has a positive effect on the performance of SMEs [14], [15].

This study conducted three tests using SEM-PLS. The first test was carried out using all research objects, namely conventional and digital SMEs. The test results show that the intensity of market competition positively affects intellectual capital. Second, intellectual capital has a positive impact on traditional and contemporary MAP. Third, traditional MAP has a positive effect on SME business performance. Fourth, contemporary MAP does not affect SME business performance. The next test is done by distinguishing between sample groups. The second test was conducted on a sample group of conventional SMEs. This test shows the same result as the first test result. The third test was conducted on a sample group of digital SMEs, supporting the first test's results. Except, traditional MAP does not affect SME business performance. Meanwhile, contemporary MAP has a positive effect on business performance.

The results of this study have implications. First, the intensity of market competition is a contingency factor that increases the development of intellectual capital in conventional and digital SMEs during the pandemic. Second, conventional (digital) SMEs tend to use traditional (contemporary) MAP. Third, traditional (contemporary) MAP can support the effectiveness of decision-making in conventional (digital) SMEs. Finally, the management of intellectual capital and the use of MAP can help SMEs to survive in the face of intense market competition during the pandemic.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

The business competition index in Figure 1 above is 1-7. A score of 1 (7) indicates a low (high) level of competition. The business competition index before the pandemic, namely in 2018 and 2019, had a score of 4.64 and 4.73, which means the level of competition was relatively high. In 2020,

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This study develops a model based on contingency theory. This theory states that external factors influence the company's internal processes [4]. The external factor in this study is the intensity of market competition faced by SMEs. SMEs usually face perfectly competitive markets. A perfect competition market has the characteristics of many producers and consumers, so an ideal competition occurs. In this condition of intense market competition, SMEs must proceed internally by developing their intellectual capital.

Intellectual capital is tacit knowledge owned by the organization. This tacit knowledge grows and develops because of internal processes within the company. Intellectual capital in SMEs includes three elements: human capital, organizational capital, and relational capital [6]. These three elements grow along with the life cycle of the organization. At the start-up stage, the only element that exists is human capital. Human capital in the form of creative ideas and innovation of entrepreneurs when starting their business. The next stage or gestation period is the stage where operational activities are already running. Entrepreneurs seek to find a simple form of organizational structure that becomes a mechanism or means of conducting business operations. At this stage, entrepreneurs must also cooperate with suppliers and consumers. Therefore, the formation of organizational and relational capital occurs at this stage. The last stage is the consolidation stage, where entrepreneurs seek to synergize these three elements of intellectual capital.

Intensity market on intellectual capital

Theintensityofmarketcompetitionisacontingent factor that shapes the internal processes in SMEs. SMEs must be able to adapt to market competition conditions to be able to maintain their business. This adaptability isdetermined by intellectual capital, which is a proxy for internal processes. Intellectual capital is formed and develops evolutionarily. Intellectual capital is one of the determinants for SMEs to win the market competition. [16] prove that in conditions of turbulence in the business environment, intellectual capital can improve SMEs' performance. The results of this study indicate that to face the uncertainty of the business environment, SMEs use their intellectual capital to produce innovative products that consumers need. The turbulence of the business environment has the same analogy as the intensity of market competition. SMEs tend to face perfect market competition, so SMEs must be able to carry out their operational activities in an innovative manner. This is made possible through intellectual capital, sometimes not realized by SMEs in their formation and growth. Therefore, this study proposes a hypothesis:

H_1: SMEs that face intense market competition tends to increase their intellectual capital.

Intellectual capital on the use of traditional management accounting practices

Management accounting practice (MAP) is a set of management accounting methods to support business decision-making. This management accounting method includes costing and accounting, planning, implementation, control, and strategy analysis [17]. The practice of management accounting has developed along with the development of technology and ways of doing business. The development of MAP is divided into four stages based on the change process according to changes in the business environment [18]. Table 1 below shows the stages of MAP.

Table 1. MAP stages

Stages	Focus	Methods
1	Use of actual data in determining the cost of goods and historical data	Comparative business analysis Ratio analysis
2	Efficiency through the use of management knowledge	BEP Analysis Accountability accounting
3	Control of the planning process and preparation of business forecasting	Economic order quantity Inventory management
4	Integration of management accounting with organizational management	Target costing Lean manufacturing

Table 1 above shows the development of MAP from stages 1 to 4. Stages 1 and 2 have the same focus, namely, cost control to achieve efficiency. Financial performance measures are essential for management in decision-making. Stages 1 and 2 are also known as traditional MAP. While stages 3 and 4 focus on efforts to make predictions in the future so that the company can use its resources optimally, which results in the reduction of the remaining raw material resources. Stages 3 and 4 focus on production techniques on the pull manufacturing system. This manufacturing system allows the company to manage its inventory efficiently because production is carried out based on customer demand that is known with certainty. MAP stages 3 and 4 are called contemporary MAP. Contemporary MAP focuses not only on financial performance measures as a control mechanism but also on non-financial performance measures.

[13], in their concept article, propose a thesis that intellectual capital in companies influences the use of MAP. Intellectual capital is knowledge developed by the organization into, among other things: an efficient operational work system, an extensive external network, the number of new products from innovative ideas, and much more. Therefore, intellectual capital will encourage traditional and contemporary management accounting methods. Traditional MAP focuses on financial control; this is supported by intellectual capital that seeks to find mechanisms and ways to make the production process run efficiently.

H_2: Intellectual capital encourages SMEs to increase the use of traditional MAP.

Intellectual capital on the use of contemporary management accounting practices

[12] prove that increasing intellectual capital investment will increase the use of contemporary MAP. Contemporary MAP focuses on financial and non-financial performance indicators. At the same time, business organizations such as SMEs cannot only pay attention to financial performance measures. The intensity of market competition provides various alternative products that consumers can choose from. This forces SMEs to increase their intellectual capital to provide the products and services that consumers need. Consumer satisfaction is an indicator that business organizations must consider. Consumer satisfaction is sought to be achieved through the optimal use of resources. Therefore, SMEs with high intellectual capital tend to use a variety of performance indicators, both financial and non-financial. These performance indicators are the focus of contemporary MAP.

H_3: Intellectual capital encourages SMEs to increase the use of contemporary MAP.

Information of traditional/contemporary MAP on the effectiveness of SME business activities

SMEs that use both traditional and contemporary MAP has the hope of improving their business performance. Traditional and contemporary management accounting methods aim to produce information that can support accurate decision-making. Previous studies have proven that the data produced by both traditional and contemporary MAP supports decision-making effectiveness [14], [15].

H_{4a}: Traditional MAP produces information that can support the effectiveness of SME business activities.

H_{4b}: Contemporary MAP produces information that can support the effectiveness of SME business.

RESEARCH METHODS

The population of this research is SMEs, those that still carry out their operational activities conventionally and digitally in Surabaya. The sampling technique uses convenience sampling to increase the response rate.

The exogeneous variable

The exogenous variable of this research is the intensity of market competition (IMC). The intensity of market competition is a condition in which increased market competition occurs when competitors' actions challenge SMEs or when SMEs recognize an opportunity to improve their market position [19]. The intensity of market competition is measured by several variable indicators, namely: the number of SMEs in the industry, changes in technology, product diversity, product quality, competitive prices, and changes in consumer tastes [20]–[22].

The intervening endogenous variables

The intervening endogenous variables are intellectual capital (IC) and traditional and

contemporary management accounting practices (MAP_TD and MAP_KT). Intellectual capital is a collection of knowledge possessed by individuals in the organization to provide a competitive advantage [23]. Intellectual capital in this study refers to [6], which is divided into three elements: human capital, organizational capital, and relational capital. Human capital is the accumulation of the level of education, experience, and motivation of an entrepreneur to increase productivity. Organizational capital is a combination of company characteristics and business strategy. The effectiveness of the company is determined by the features of the company, which include: length of business and company size. In addition to business characteristics, the strategy also plays a role in determining the success of SMEs. This business strategy includes the entrepreneur's decision to use its resources. Relational capital is a network owned by SMEs, including suppliers, consumers, and the government.

Management accounting practices (MAP) are accounting techniques that produce information for management to plan, evaluate, and control [24]. This study divides MAP into traditional (MAP_TD) and contemporary (MAP_KT). MAP_TD is a management accounting technique that focuses on using financial performance indicators. Variable indicators, namely measure MAP_TD: depreciation for costing, selling price fixing techniques, budget realization, sales and cost records, budgeting, BEP analysis, and best-selling sales [14], [24], [25]. MAP_KT is a management accounting technique that uses various performance indicators, both financial and non-financial. MAP_KT is measured by several indicators, namely: method of budgeting and allocation of overhead costs to SMEs that produce various products, product quality, investment analysis, selling price determination method, profitability analysis per product segment, non-financial performance analysis, and industry analysis [14], [24], [25].

The endogenous variable

The endogenous variable of this research is business performance (KB). Business performance is the achievement of operational activities carried out by SMEs [14]. Business performance is measured by financial and non-financial performance. The financial performance consists of sales growth, increased cash flow, and profit. The non-financial performance consists of an increase in the number of consumers, products, and consumer services.

Measurements of variables

Likert scale 1 (strongly disagree) – 5 (strongly agree) was used to measure respondents' answers to all indicators of exogenous, endogenous intervening, and endogenous variables.

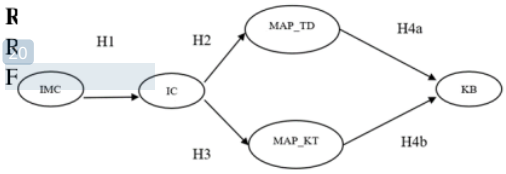

Figure 2. Research Model

Figure 2 above is derived into the research equation as follows:

$$IC_i = \alpha_0 + \alpha_1 IMC_i + \varepsilon \quad (1)$$

$$MAP\_TD_i = \beta_0 + \beta_1 IC_i + \varepsilon \quad (2)$$

$$MAP\_KT_i = \delta_0 + \delta_1 IC_i + \varepsilon \quad (3)$$

$$KB_i = \gamma_0 + \gamma_1 MAP\_TD_i + \gamma_2 MAP\_KT_i + \varepsilon \quad (4)$$

where:

IMC = Intensity market competition
IC = Intellectual Capital
MAP_TD = Management Accounting Practices Traditional
MAP_KT = Management Accounting Practices Contemporary
KB = Business Performance
$\alpha_0, \beta_0, \delta_0, \ddot{o}_0$ = Constanta
$\alpha_1, \beta_1, \delta_1, \ddot{o}_1, \ddot{o}_2$ = Regression Coefficient
ε = *Error term*

H_1 is proven if 1 in equation (1) is significant and positive. H_2 is confirmed if 1 in equation (2) is significant and positive. H_3 is proven if 1 in equation (3) is significant and positive. H_{4a} (H_{4b}) is proven if 1 (ö2) in equation (4) is significant and positive.

Collecting data and non-response biased

They were collecting data using a survey method through the distribution of questionnaires. The questionnaire was made in the form of a google form to make it easier for respondents to fill it out. The questionnaire was distributed twice through social media WhatsApp, line, and Instagram. The

first questionnaire was sent in November 2020. The respondents who returned the questionnaire were 114 conventional and 46 digital SMEs. The second questionnaire was sent in December 2020 with 13 conventional and six digital SMEs as respondents.

This study conducted a non-response biased test to ensure no change in results due to changes in the number of respondents. The non-response biased test uses the Wilcoxon test. Table 2 below shows the results of the non-response biased test.

Table 2. Result Non-response biased test

Panel A. Conventional SMEs								
	IMC	**HC**	**OC**	**RC**	**TD**	**KT**	**KK**	**KNK**
Sig.	0,36	0,11	0,92	0,05	0,95	0,52	0,69	0,55
Panel B. Digital SMEs								
	IMC	**HC**	**OC**	**RC**	**TD**	**KT**	**KK**	**KNK**
Sig.	0,59	0,33	0,33	0,63	0,32	0,59	0,77	0,59

Note:
IMC = intensity market competition
HC = human capital
OC = organizational capital
RC = relational capital
TD = Traditional MAP
KT = contemporary MAP
KK = Financial Performance
KNK = Non-financial performance

Table 2 Panel A shows no difference in the answers of conventional SMEs in November with December 2020. Panel B also offers the same results. This concludes that the research results will not change if there is a change in the number of respondents.

This study conducted a different test of the answers of conventional SMEs with digital. This test aims to ensure that the same research questionnaire can be used for both types of SMEs. Table 3 below shows the results of the independent sample t-test.

Table 3. Different Test Results for Conventional and Digital SMEs

	IMC	**HC**	**OC**	**RC**	**TD**	**KT**	**KK**	**KNK**
Sig.	0,62	0,19	0,72	0,16	0,95	0,93	0,52	0,55

Note:
IMC = intensity market competition
HC = human capital
OC = organizational capital
RC = relational capital
TD = Traditional MAP
KT = contemporary MAP
KK = Financial Performance
KNK = Non-financial performance

Table 3 above concludes that there is no difference in understanding of the questionnaire used as the research instrument for both conventional and digital SMEs.

RESULTS AND DISCUSSION

Overview of the research object

The object of this research is conventional and digital SMEs. Table 4 below shows an overview of conventional and digital SMEs.

Table 4. Overview of the research object

Panel A. Conventional SMEs		
Field of business		
	amount	***Percentage***
Retailer	63	49,6%
Food and beverage	46	36,2%
Handicraft	10	7,9%
Household needs	2	1,6%

Panel A. Conventional SMEs		
Field of business		
	amount	***Percentage***
Others	6	4,7%
Business establish		
< = 5 years	71	55,9%
6 – 15 years	35	27,6%
16 – 25 years	11	8,7%
25 – 35 years	6	4,7%
36 – 45 years	3	2,4%
46 – 55 years	1	0,8%
Venture capital		
Owner's capital	90	70,9%
Own capital and from outside	37	29,1%

Panel B. Digital SMEs		
Field of business		
IT-service	14	26,9%
Market place	9	17,3%
Edu-tech	7	13,5%
Health-tech	5	9,6%
Agri-tech	3	5,8%
Fin-tech	2	3,8%
Digital advertising	2	3,8%
Social commerce	2	3,8%
Entertainment	2	3,8%
Others	6	11,5%
Business establish		
< 1 years	23	41,1%
1 – 5 years	26	46,4%
6 – 10 years	5	8,9%
> 10 years	2	3,6%
Venture capital		
Funding from investors	48	92,3%
Funding from bank loans	4	7,7%

Conventional SMEs are dominated by retailers and food and beverage production with 49.,6%, and 36.2%, respectively, as shown in Panel A Table 4. Other business fields in conventional SMEs are services, education, packaging, organic fertilizer production, fly glue production, and electronic equipment production. Panel B Table 4 shows that digital SMEs are dominated by IT-service (26.9%), marketplace (17.3%), and Edu-tech (13.5%). Other business fields in digital SMEs are home design, export companies, food start-ups, information portals, listings, intelligent city apps, and new fields not mentioned by respondents. Panels A and B of Table 4 show that conventional and digital SMEs are young companies because they have an average length of business under five years. Meanwhile, conventional SMEs' capital comes from their capital, and digital SMEs' money comes from investors.

Descriptive Statistic

Statistical descriptions for each variable in this study are presented in Table 5.

Table 5. Descriptive statistic result

Variable	**Conventional SMEs**			
	Min	Max	Mean	Std. Dev
IMC	2,5	5	4,3	0,6
HC	2,0	5	4,0	0,7
OC	2,5	5	4,2	0,6
RC	1,0	5	3,8	0,8
TD	1,8	5	3,8	0,6
KT	2,4	5	3,9	0,6
KK	1,0	5	3,6	0,9
KNK	2,3	5	4,1	0,6
Variable	**Digital SMEs**			
	Min	Max	Mean	Std. Dev
IMC	2,2	5	4,1	0,6
HC	3,0	5	4,3	0,6
OC	3,0	5	4,4	0,6
RC	2,0	5	3,8	0,9
TD	2,3	5	3,9	0,6
KT	2,8	5	4,1	0,6
KK	1,0	5	3,5	1,0
KNK	1,3	5	3,8	0,7

Table 5 above shows that the intensity of market competition (IMC) has the same minimum, maximum, mean, and standard deviation values between conventional and digital SMEs. This indicates that the intensity of market competition faced by conventional and digital SMEs is relatively tight.

Human capital (HC) in conventional SMEs (digital SMEs), which is one element of intellectual capital, has a mean value of 4 (4.3). This indicates that human capital in conventional SMEs is relatively the same as in digital SMEs. However, the minimum value has a significant enough difference because conventional SMEs (digital SMEs) have a minimum value of 2 (3). This may be due to differences in education levels. Figures 3

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and 4 show the education level of conventional and digital SMEs.

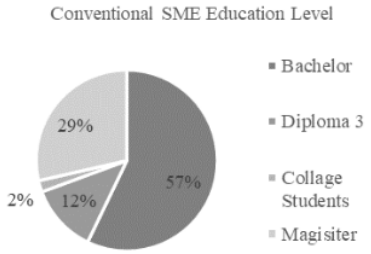

Figure 3. *Conventional SME Education Level*

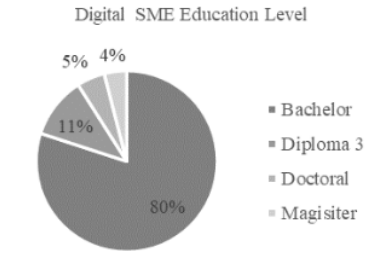

Figure 4. *Digital SME Education Level*

Figure 3 shows that the education level of conventional SMEs is dominated by SMA/SMK (28%) and undergraduate (56%). At the same time, the education level of digital SME players is dominated by undergraduates, as much as 80%. This shows that the minimum value of human capital in digital SMEs is higher than in conventional ones. The conclusion is that human capital in the context of capabilities in digital SMEs is more elevated than in conventional ones.

Organizational capability (OC) as an element of intellectual capital has a relatively similar mean value. Conventional SMEs have a mean value of 4.2 and digital SMEs 4.4. The minimum, maximum, and standard deviation values are relatively the same. This indicates that the organizational capabilities of conventional and digital SMEs are not much different.

Relational capital (RC), as the last element of intellectual capital, has the same mean value of 3.8. However, the minimum value for conventional SMEs (digital SMEs) is 1 (2). This indicates that the external network of digital SMEs is more comprehensive than conventional SMEs. This confirms the source of funding for digital SMEs.

Traditional management accounting practices (TD) in conventional SMEs have a mean value of 3.8. Meanwhile, for digital SMEs, the mean value is 3.9. This indicates that the frequency of using information generated by traditional management accounting practices in conventional and digital SMEs in supporting decision-making during the pandemic is the same.

Contemporary management accounting practices (KT) in conventional (digital) SMEs have a mean value of 3.9 (4.1). This indicates that the information generated by contemporary management accounting practices in digital SMEs for decision-making is more frequent than in conventional SMEs during the pandemic. However, compared to the mean value of TD, the mean value of good KT in digital SMEs is higher. Digital SMEs tend to use contemporary management accounting practices. Whereas in conventional SMEs, the mean value between TD and KT is not much different. Conventional SMEs consider the information generated by TD and KT important in decision-making.

Business performance as measured by financial performance (KK) in conventional (digital) SMEs has a mean value of 3.6 (3.5). This shows that the achievement of financial performance, both conventional and digital, tends to be low during the pandemic. The pandemic has made it difficult for SMEs to sell their products.

As measured by non-financial performance (KNK) in conventional SMEs, business performance has a mean value of 4.1, higher than digital SMEs, which is 3.8. However, the mean value of KNK for both conventional and digital SMEs is higher than that for KK. The achievement of non-financial performance is better than financial performance.

Result

Testing the hypothesis of this study using structural equation modelling partial least squares (SEM-PLS). The testing stages are the measurement model and the structural model. The measurement model test for each variable indicator that measures the construct or latent variable has passed.

The structural model in this study was carried out three times. The 1st test for all research objects, namely conventional and digital SMEs. The 2nd test was conducted only for conventional SMEs. And

the 3rd test was conducted for digital SMEs. The test results of all structural models are presented in Table 6 below.

Panel A Table 6 shows the results of testing the entire research object the same as the results of testing conventional SMEs in panel B Table 6. While the results of testing digital SMEs in panel C Table 6 are different from the test results of the entire research object. The difference in the results of the MAP_KT influence test on family planning is significant for digital SMEs, while the overall research object is not significant. Table 6 above concludes that the number of conventional SMEs (n=127) is more than digital SMEs (n=52), which is essential because it affects the significance of this relational test.

Table 6. Structural Model Test Results

	t-value		Conclusions
Panel A. Conventional and digital SMEs			
IMC → IC	3,39	Significant	H1 accepted
IC → MAP_TD	7,66	Significant	H2 accepted
IC → MAP_KT	7,31	Significant	H3 accepted
MAP_TD → KB	2,10	Significant	H4a accepted
MAP_KT → KB	1,27	Not Significant	H4b rejected
Panel B. Conventional SMEs			
IMC → IC	2,829	Significant	H1 accepted
IC → MAP_TD	7,779	Significant	H2 accepted
IC → MAP_KT	6,266	Significant	H3 accepted
MAP_TD → KB	2,747	Significant	H4a accepted
MAP_KT → KB	0,125	Not Significant	H4b rejected
Panel C. Digital SMEs			
IMC → IC	2,577	Significant	H1 accepted
IC → MAP_TD	3,351	Significant	H2 accepted
IC → MAP_KT	4,264	Significant	H3 accepted
MAP_TD → KB	0,334	Not Significant	H4a rejected
MAP_KT → KB	3,000	Significant	H4b accepted

Panel A Table 6 above shows the results of testing the entire research object the same as the results of testing conventional SMEs in panel B Table 6. While the results of testing digital SMEs in panel C Table 6 are different from the test results of the entire research object. The difference in the results of the MAP_KT influence test on family planning is significant for digital SMEs, while the overall research object is not significant. Table 6 above concludes that the number of conventional SMEs (n=127) is more than digital SMEs (n=52), which is essential because it affects the significance of this relational test.

The effect of the intensity of the market competition on intellectual capital

The results of the H_1 test are supported empirically. Three times are tested for all research objects. Only conventional and digital SMEs showed the same results, namely, the intensity of market competition forcing SMEs to increase the use of their intellectual capital. SMEs, both conventional and digital, strive to maintain their survival. The intensity of market competition during the pandemic is a threat factor for SMEs. The market competition faced by SMEs is perfect. Regulations to enter this sector are relatively not strict, so there are a lot of SME players or actors. Consumers have many alternative product choices in the market. SMEs are "forced" to conduct research and innovation in producing products needed by consumers.

Product innovation can be done by SMEs situationally. Based on the interview with one of the respondents in catering services, during the pandemic, the need for catering services for covid patients who do independent isolation at home. It indicates that SMEs use their intellectual capital to capture business opportunities during the pandemic. This means SMEs are trying to find new markets where the intensity of market competition is still low.

The results of this study support the research results of [16]. Research by [16] examines the role of intellectual capital in SMEs in Pakistan in dealing with environmental turbulence. Environmental turbulence, as well as the intensity of market competition, is a threat factor for SMEs. SMEs must be able to maintain their sustainability by using intellectual capital.

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The influence of intellectual capital on traditional MAP

The results of the H_2 test of this study are empirically supported both in all SMEs, conventional SMEs, and digital SMEs. Intellectual capital in SMEs will encourage SMEs to use traditional MAP. Traditional MAP consists of management accounting methods focusing on accounting numbers or cost control. SMEs with high intellectual capital tend to use the information generated by traditional MAP to support decision-making.

Cost control is an essential factor for SMEs to maintain cash flow stability. In conventional and digital SMEs, almost all transactions use cash transactions. Therefore, SMEs must manage their costs well.

The result concludes the importance of intellectual capital in the context of the competence of SMEs to manage their operational costs. Digital SME players ask for client cooperation in terms of faster payments than usual, although in practice, there are clients who delay payments. Likewise, conventional SME players convert fixed costs in the form of driver salaries into variable costs in the form of courier costs. What has been done by conventional and digital SME players shows an effort to control costs.

The results of this study support the results of [12]. Business organizations with high levels of intellectual capital tend to take advantage of the information needs generated by management, accounting for decision-making.

The influence of intellectual capital on contemporary MAP

The results of the H_3 test of this study were proven empirically. Three times the test shows the same results, SMEs with a high level of intellectual capital tend to use the information generated by contemporary MAP. Contemporary MAP focuses on the efforts of business organizations to create product value to meet consumer needs examples of profitability analysis per product segment, activity analysis, and so on. Profitability analysis per product segment provides information on top sales products. This information helps help SMEs to focus on the products that consumers most need.

The interview with one of digital SMEs as one of the research samples indicates that profitability each product segment was analysed. This analysis is discussed periodically, namely every semester. This shows that the intellectual capital in SMEs encourages the use of information produced by contemporary MAP to improve services, especially for products that consumers most need. Meanwhile, the results of interviews with conventional SMEs indicate that there is an analysis of activities to produce time or length of production so that consumers can receive the product promptly. These conventional SMEs use their intellectual capital when evaluating delivery delays. The result of this evaluation in the form of reflection is information on the length of production time.

The results of this study support [12]. The results of this study indicate that increasing intellectual capital investment supports the various performance measures that exist in contemporary MAP. The results of this study have shown the thesis of [13] empirically. Intellectual capital consists of non-financial aspects, namely human capital, organizational capital, and relational capital, so the performance measurement system cannot be traditional anymore.

The effect of traditional MAP on SME business performance

The information produced by traditional MAP can support the effectiveness of decision-making. Efforts to change costs from fixed to a variable as the results of interviews with conventional SMEs. This can help SMEs in controlling their prices so that there is an increase in business performance. The increase in the business performance of conventional SMEs was contributed mainly by non-financial performance, as shown in Table 5 statistical description. The mean value of non-financial performance is higher than the mean financial performance. Achievement of performance during this pandemic is quite tricky for SMEs. The results of interviews with conventional SMEs in the food and beverage production field are as follows.

The results of the H_{4a} test are proven empirically in the test for all research objects and conventional SMEs. However, in testing digital SMEs, the results are not significant. This indicates that conventional SMEs tend to use traditional MAP. This can be seen from the statistical description in Table 5, which shows that the mean conventional MAP value is higher than contemporary MAP.

The results of this study support the research of [14], [15]. These studies also prove that MAP affects the performance of SMEs.

The influence of contemporary MAP on SME business performance

The results of this study prove H_{4b} empirically in the third test, which is only digital SMEs. This indicates that digital SMEs tend to use contemporary MAP to support the effectiveness of their business decisions.

Business performance that is the focus of SMEs is non-financial performance. This can be seen in Table 5 where the mean value of non-financial performance in digital SMEs is higher than financial performance. Financial performance is difficult for digital SMEs to achieve, because the results of interviews with digital SMEs have decreased turnover. The decline in turnover was due to a large number of bankrupt clients.

The results of the interview confirm the statistical description in Table 5. Achieving financial performance is not an easy thing during this pandemic. Therefore, the focus on achieving its performance shifts from financial to non-financial performance. The results of this study support the research of [14], [15].

CONCLUSION

This study concludes several vital findings during the pandemic.

1. The intensity of market competition can encourage SMEs to form and increase their intellectual capital. Perfect market competition faced by SMEs will result in the emergence of internal processes in the form of intellectual capital.
2. SMEs with a high level of intellectual capital tend to use the information produced by both traditional and contemporary MAP in supporting their decision-making.
3. Traditional MAPismoreeffectiveinsupporting decision-making than contemporary MAP in conventional SMEs.
4. Contemporary MAP is more effective in supporting decision-making than traditional MAP in digital SMEs.
5. The effectiveness of decision-making for conventional and digital SMEs in the form of non-financial performance during the pandemic.

The results of this study have implications, namely, first, SMEs must increase their intellectual capital in facing competitive conditions to maintain their sustainability. Second, conventional (digital) SMEs can explore various traditional (contemporary) PAM methods to support decision-making. Third, non-financial performance measures are an achievement target for SMEs in times of changes in the business environment, such as during this pandemic.

This research has several limitations, first, it is difficult to get digital SMEs who want to be respondents. SMEs should not have to worry about academic research because research should be a source of solutions. Second, the results of this study cannot be generalized to other sectors. The results of this study only photograph the SME sector during the pandemic.

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