



Pioneer Orientation and Management Control System towards Dynamic Capability Strategy in the Innovation Ability of Muhammadiyah Educational Institutions in Ponorogo

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Abstract. Muhammadiyah as an Islamic missionary organization has a passion for providing educational services in Indonesia, so it has thousands of educational institutions from pre-primary to tertiary level. In its journey, the Muhammadiyah Education institution encountered various kinds of challenges. This research focuses on examining dynamic marketing strategy planning as a mediator variable in the influence of control management systems and pioneer orientation on innovation capabilities. The research model is adjusted to the relevance of the research object determined by the researcher based on temporary observations and supported by literature studies that have been carried out. The basic theory in this model is dynamic marketing strategy which is part of dynamic capabilities. This research uses quantitative methods using the Structural Equation Model Partial Least Square (SEM-PLS) to analyze the data. The research was conducted in Ponorogo Regency, East Java, with respondents being leaders of private schools in the Muhammadiyah Ponorogo area. Based on the results of data analysis tests and discussions, it is known that of all the hypotheses presented, there are five hypotheses that have a direct and significant influence and two hypotheses that have no influence. The relationship between pioneer orientation and dynamic capability strategy, as well as the role of dynamic capability strategy in mediating the relationship between pioneer orientation and innovation ability, is stated to have no influence

Keywords: Pioneer Orientation, Management Control System, Dynamic Capability, Ability to Innovate

1 Introduction

The Indonesian Islamic Education Institute has a long history with the mission of applying the principles of Islamic law in life to society. This tradition of transferring knowledge has been going on from time to time. (Kholili and Fajaruddin, 2020). Transformation and modernization in the dissemination of knowledge in Islamic-based educational institutions that study religious knowledge and science. Especially in Indonesia, the tradition of Islamization of education for society has existed since before the emergence of colonial colonialism. Islamic education in

institutions is hampered by colonial policies which do not show siding with Islam.(Lenggono, 2018).

Capability is a competitive advantage that arises from "an organization's efforts to build integration, organize and reconfigure internal and external capability levels in facing the challenges of rapid environmental change."(Zahoor et al., 2022). In providing educational services, each person faces a situation according to their environmental conditions. If viewed in general, challenges arise in the external environment that have an effect on the internal environment. In this case, each educational institution needs to maximize internal and external resources.

Pioneer Orientation is a strategic orientation that refers to a company's tendency to develop innovative products and introduce them to new markets. Pioneer orientation has a positive relationship in its influence on dynamic capabilities(Ruiz-Ortega, Rodrigo-Alarcón and Parra-Requena, 2023a). In the world of education, Muhammadiyah as an Islamic missionary organization has strong efforts in providing educational services for the people. Kyai Haji Ahmad Dahlan as the founder of the organization holds the principle that the issue of education is something that must be taken seriously because it is related to the preparation of the next generation of this nation and religion.(Ahmed, 2015). Since the founding of Muhammadiyah until now, there have been thousands of Muhammadiyah educational institutions ranging from childhood to tertiary level. This is a form of Muhammadiyah's concern in assisting the government in improving the level of education of this nation.

Management control systems represent an essential component of contemporary organizational management, consisting of a set of tools and methods designed to set direction, implement control, and monitor the efficiency and effectiveness of resources and activities.(Felicio, Samagaio and Rodrigues, 2021). The Muhammadiyah Central Leadership Research and Development Education Council stated that quality education is the main goal of all organizational stakeholders in educational services. The market will have a strong interest in quality schools. The management control system will have an influence on the trust of the Institution by the market which includes the community, students, guardians and government. The orientation of improving organizational quality should be the main goal as a form of good service. In the midst of increasingly high demands for public services, quality management control must be a primary concern. Educational institutions within Muhammadiyah are required to improve management control through the Institutional Quality Assurance Agency and Quality Control System.

Innovation ability can be defined as a company's ability to create new ideas that contribute to its performance and progress(Kutieshat and Farmanesh, 2022; Al Daboub, Al-Madadha and Al-Adwan, 2024). In Ponorogo Regency, there are around 197 Muhammadiyah educational institutions. One school that has strong public trust is the Integrated Muhammadiyah Elementary School (SDMT). This school currently has around 700 students who come from various regions. In the midst of competition with other state elementary schools and private elementary schools, SDMT is making a breakthrough with full day school innovation with strong Islamic-based learning branding. The Tahfidz Method, Tilawatil & Tartil Qur'an, and Adab Practice are one of the school's superior programs. Apart from that, it also organizes outdoor learning programs to show the innovation of a learning method.

This research focuses on examining dynamic marketing strategy planning as a mediator variable in the influence of control management systems and pioneer orientation on innovation capabilities. The research model is adjusted to the relevance of the research object determined by the researcher based on temporary observations and supported by literature studies that have been

carried out. The basic theory in this model is dynamic marketing strategy which is part of dynamic capabilities.

Dynamic marketing strategy is one of the factors that influences an organization's innovation capabilities. Conformity to the evolutionary process shows that dynamic marketing strategies are closely related to the ability to innovate (Theoharakis, Zheng and Zhang, 2024). This is a different finding from previous research which stated concerns and doubts between dynamic marketing strategies and innovation (Hughes et al., 2019). Furthermore, the relationship between pioneer orientation is one of the factors that influence dynamic strategic capabilities (Ruiz-Ortega, Rodrigo-Alarcón and Parra-Requena, 2023). It is stated that organizations that have a pioneer orientation have the potential to develop stronger dynamic strategies. Pioneer companies that face weaknesses can reduce organizational performance. It has been proven that company performance has competitive dominance (Gomez, Lanzolla and Maicas, 2016).

Management control systems have the capacity to improve organizational capabilities and efficiency, encouraging the judicious adoption of innovation within the organization. On the other hand, dynamic capabilities include an organization's ability to adapt and develop new capabilities in response to external changes. This requires the capacity to refine or adapt existing capabilities and processes to align with changing circumstances. Management control systems can act as a catalyst for the development and improvement of these dynamic capabilities by providing the necessary information, enabling careful planning, and facilitating vigilant monitoring (Culek, 2019; Bernd and Beuren, 2022; Jutidharabongse et al., 2024).

It is hoped that this research will become a reference for managers of educational institutions who are trying to provide the best service to the community. Capability strategy is an effort to maintain competitive advantage in the sustainability of the organization. In the midst of increasing development in the organizational environment, every educational institution needs to be adaptive and responsive to every different challenge. This research on pioneer orientation, management control systems, ability to innovate and dynamic capabilities is a reference in determining the right strategy for managers of educational organizations.

2 LITERATURE REVIEW

Pioneer Orientation

Pioneer Orientation is a strategic orientation that refers to a company's tendency to develop innovative products and introduce them to new markets. Pioneer orientation has a positive relationship in its influence on dynamic capabilities (Ruiz-Ortega, Rodrigo-Alarcón and Parra-Requena, 2023a). Companies that consistently demonstrate pioneering behavior across their product lines can be considered companies with a pioneering orientation. A company with a pioneer orientation will be a company that creates or is one of the first companies to introduce a product to the market that is not yet known or actively exploited by other companies. (Covin, Slevin and Heeley, 2000). Organizations that have the motivation to be pioneers in a certain achievement tend to be able to face challenges that have the potential to arise in their activities. By being a pioneer, the organization's ability to manage internal and external resources is better, so it is able to achieve competitive advantage. So based on this description it can be understood that the stronger the organization's motivation as a pioneer, the better the organization's dynamic capabilities.

H1. Pioneer Orientation Influences Dynamic Capabilities

Management Control System

Management control systems are described as compensating for a lack of trust and providing confidence in collaborative relationships because they influence the behavior of other parties to be in line with cooperative goals (Vuorenmaa, 2024). The existence of a good management control system has a positive impact on the dynamic capabilities of an organization (Jutidharabongse et al., 2024). Management control systems are described as compensating for a lack of trust and providing confidence in collaborative relationships because they influence the behavior of other parties to be in line with cooperative goals (Vuorenmaa, 2024). There are three different forms of control – outcome, action, and personnel/culture control. The management control system is a balance of management activities. Organizations that have a good management control system are better able to anticipate and predict things that are under or outside the organization's control. So based on this description it can be understood that the better the management control system used by the organization, the better the organization's dynamic capabilities.

H2. Management Control Systems Influence Dynamic Capabilities

Ability to Innovate

Innovation ability can be defined as a company's ability to create new ideas that contribute to its performance and progress (Kutieshat and Farmanesh, 2022; Al Daboub, Al-Madadha and Al-Adwan, 2024). Dynamic Capabilities are seen as a multidimensional construct consisting of radical and incremental innovation capabilities, a unidimensional construct that combines both capabilities. Incremental and radical innovation cannot be separated from each other; rather, they complement each other in an organization's innovation efforts. Incremental innovation involves small, ongoing improvements to existing products, processes, or services, while radical innovation involves more disruptive breakthroughs.

The ability to innovate is also defined as a challenging and expensive process, which explains why companies' levels of innovation vary (Mallen Broch et al., 2020). Therefore practitioners and decision makers must develop a portfolio of dynamic capabilities to drive innovation at all levels of the organization. Based on the opinions above, it can be understood that innovation is an organizational competency in maintaining organizational continuity through the use of organizational resources. Pioneer orientation has a positive relationship in its influence on the organization's ability to innovate (Lin et al., 2022). Organizations that have the motivation to be pioneers in a certain achievement tend to be able to face challenges that have the potential to arise in their activities. By becoming pioneers, organizational actors have stronger innovation exploration potential. So based on this description it can be understood that the stronger the organization's motivation as a pioneer, the stronger the organization's ability to innovate.

The management control system is a balance of management activities. Organizations that have a good management control system are better able to anticipate and predict things that are under or outside the organization's control through the creation of different ideas. It could be said that organizations are able to turn threats into opportunities. So based on this description it can be understood that the better the management control system used by an organization, the better the organization's ability to innovate.

H3. Pioneer Orientation Influences the Ability to Innovate

H4. Management Control Systems Influence the Ability to Innovate

Capability Dynamic

Capability is a competitive advantage that arises from "an organization's efforts to build integration, organize and reconfigure internal and external capability levels in facing the challenges of rapid environmental change." (Zahoor et al., 2022). Dynamic Capabilities are considered high-level capabilities that enable organizational learning, creating new asset portfolios, and updating traditional capabilities. All organizations need dynamic capabilities to respond to dynamic market conditions and create competitive advantage.

Dynamic Capabilities are those capabilities that enable companies to continually update their resource base, adapt to disruptive changes in the environment, and maintain their competitive advantage even when disruptions occur. (Saeedikiya, Salunke and Kowalkiewicz, 2024). These are organizational and strategic routines that enable a company to achieve new resource configurations. Dynamic Capabilities have been widely recognized in the literature: sensing, seizure, and reconfiguration. Sensing capabilities refer to identifying opportunities outside the organization.

Pioneer orientation has a positive relationship in its influence on the organization's ability to innovate (Lin et al., 2022). Organizations that have the motivation to be pioneers in a certain achievement tend to be able to face challenges that have the potential to arise in their activities. The management control system influences dynamic capabilities, which then has a relationship with the ability to innovate. Organizations that have a good management control system may have better dynamic capabilities, so that the organization will easily demonstrate the ability to innovate in various environmental changes that occur. Based on this description, it can be stated that the better the management control system, the stronger the dynamic capabilities of the organization, so that the ability to innovate will be organized in accordance with the organization's goals.

H5. *Dynamic Capabilities influence the Ability to Innovate*

H6. *Dynamic Capabilities Mediate Pioneer Orientation to Innovation Ability*

H7. *Dynamic Capabilities Mediate the Effect of Management Control Systems on Innovation Ability*

Methodology

The approach in this research uses quantitative methods using primary data from distributing questionnaires to respondents. The population in this study were managers of Muhammadiyah Charity Businesses in the field of Education in Ponorogo with a total of 194. The characteristics of the respondents were not limited by the level of education at which they worked, namely Childhood Level, Elementary School equivalent, Junior High School equivalent, Senior High School equivalent and College. . The sampling technique is a way of collecting data through recording or photographing part of the research population. In this research, the sampling method was carried out using the stratified random sampling method. Stratified random sampling is a meaningful grouping of elements at all levels and taking samples that meet the proportions or not at that level. The data that has been obtained is processed using SMART-PLS software to obtain accurate test results.

The operational definition means the method of presenting explanations of variables in character so that the elements of the concept can be seen and then carried out operational measurements in

research(Jogiyanto and Abdillah, 2009). The definitions of variables and variable indicators in this research are as follows:

Table 1.Operational Definition of Variables

Operational definition	Indicator
Strategic orientation refers to an organization's tendency to develop innovative learning services and introduce them to new markets(Ruiz-Ortega, Rodrigo-Alarcón and Parra-Requena, 2023b)	- Risk Taking
	- Innovation
	- Autonomous
	- Competitive Aggressiveness
A management control system is a set of tools and methods designed to set direction, implement control, and monitor the efficiency and effectiveness of an organization's resources and activities(Felício, Samagaio and Rodrigues, 2021)	- Decision-making
	- Resource Allocation
	- Risk Mitigation
	- Performance evaluation
An organization's ability to integrate, build and reconfigure internal and external competencies to address rapidly changing environments” by “deliberately creating, expanding or modifying its resource base”(Zahoor et al., 2022)	- Desire to Learn
	- Resource Reconfiguration
	- Creativity Competency
	- Management Update
An organization's ability to create new ideas that contribute to its performance and progress(Kutieshat and Farmanesh, 2022; Al Daboub, Al-Madadha and Al-Adwan, 2024)	- Building a Network
	- Information Exchange
	- Customer Creations
	- Competitive Advantage Collaboration

3 RESULTS AND DISCUSSION

The data analysis technique in this research uses Structural Equation Modeling with a Partial Least Square (SEM-PLS) algorithm approach. The selection of techniques was based on research objectives which focused on testing respondents' innovation ability tendencies, as well as the normal distribution of research sample answers(Sarstedt, Ringle and Hair, 2021). Questionnaire data that has gone through an accumulation process is then processed using SmartPLS 4 software. Data analysis begins with compiling a structural model, followed by testing the validity and reliability of the measurement model (outer model), next is testing the significance of the relationship between variables (inner model) and testing mediation strategies dynamic capabilities on the relationship between pioneer orientation and management control systems on the ability to innovate. Based on the conceptual framework that has been created, the structural model in this research is as follows:

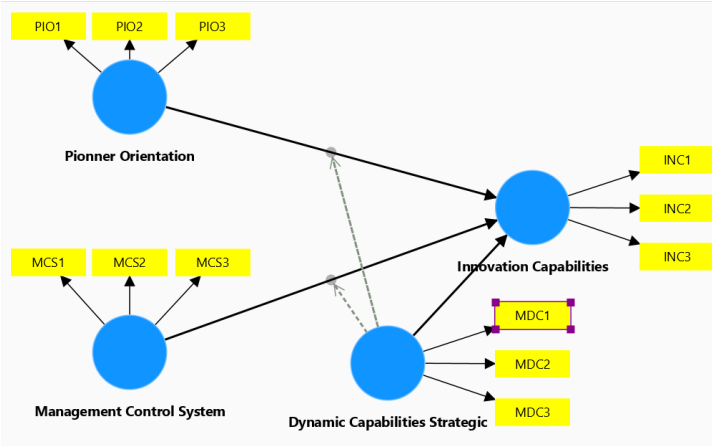


Figure 1.Proposed Model
Source: SmartPLS Data Processing, 2024

The preparation of a structural model is a design of relationships between latent variables. The exogenous latent variables in this research are pioneer orientation, management control system and dynamic capability strategy as mediators of the relationship between the variables tested. Meanwhile, the endogenous variable in this research is the ability to innovate. The results of construct validity and reliability testing can be seen in the following outer model stages:

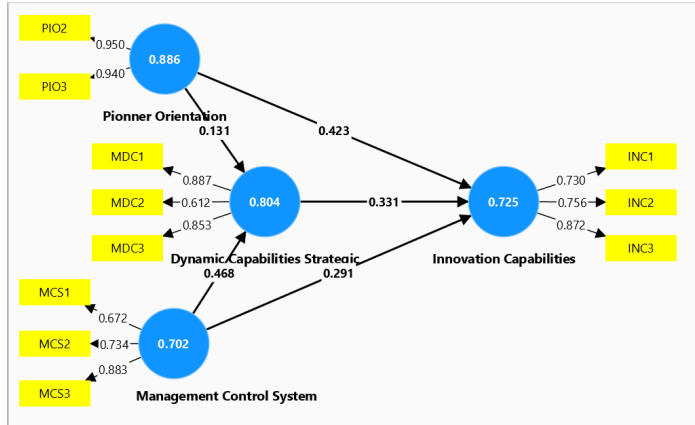


Figure 2.Evaluation Results of the Measurement Stage (Outer Model)
Source: SmartPLS Data Processing 4, 2024

Evaluation of the Measurement Model (Outer Model)

Convergent Validity

This test is determined by observing the outer loading numbers of all indicators on the endogenous variables. A score above 0.7 is considered to have criteria as a valid indicator if it is 50% and so on in the indicator variant. However, an outer loading value of 0.5 at 0.6 can be tolerated to meet the convergent validity requirements(Chin, 2002). The results of the processing using the PLS algorithm for outer loading are presented in the following table:

Table 2.Outer Loadings Test Results

	Pioneer Orientation	Management Control System	Dynamic Strategic Capabilities	Innovation Capability
PIO2	0.950			
PIO3	0.940			
MCS1		0.672		
MCS2		0.734		
MCS3		0.883		
MDC1			0.638	
MDC2			0.794	
MDC3			0.689	
INC1				0.756
INC2				0.740
INC3				0.701

Source: SmartPLS Data Processing 4, 2024

Based on table 2, it can be seen that all indicators on the four variables have met the requirements as valid indicators with an outer model value > 0.7. There are two indicators (MDC1, MCS1 and the deleted PIO1) that are below 0.7. However, it can still be accepted because in the description above it is explained that it is considered to meet the requirements because it has an outer result of more than 0.5.

Discriminant Validity

Numbers on the Fornell-Larcker Criterion (FLC) and cross loadings are techniques that are generally used to test discriminant validity. The FLC score for each latent construct indicator should be greater than the cross loading score for the other latent constructs. The results of the discriminant validity test are as follows:

Table 3.Outer Loadings Test Results

			Celebrity Endorsements	live streaming	Online Consumer Reviews	Purchase Intention
Celebrity Endorsements						
live streaming			0.674			
Online	Consumer		0.931	0.856		
Reviews						
Purchase Intention			0.913	0.883	1,069	
Online	Consumer		0.227	0.072	0.307	0.253
Review	X Live					
Streaming						
Online	Consumer		0.425	0.174	0.417	0.364
Review	X Celebrity					
Endorsement						

Source: SmartPLS Data Processing 4, 2024

Based on the table above, it is known that eachndicator has the largest Purchase Intention value on its own latent construct compared to the Purchase Intention value on other constructs. With these results, it can be seen that all the indicators used in the research have good discriminant validity so that they form the respective variables. The Average Variant Extracted (AVE) score is also a way to detect cross loading tests, provided the value exceeds 0.5. The following are the results of testing the AVE value:

Table 4.Discriminant Validity Test Results

Variable	AVE
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Pioneer Orientation	0.893
Management Control System	0.590
Dynamic Strategic Capabilities	0.630
Innovation Capability	0.622

Source: SmartPLS Data Processing 4, 2024

Based on table 8, it is known that each indicator of the latent construct is able to explain 50% or more of the variance.

Composite Reliability

In the SEM-PLS technique, a construct is said to be reliable if it has a composite reliability score of less than 0.6 and a Cronbach's Alpha score of greater than 0.7. The test results are as in the following table:

Table 5.Reliability Construct Test Results

Variable	Cronbach's Alpha	Composite Reliability
Pioneer Orientation	0.886	0.944
Management Control System	0.702	0.810
Dynamic Strategic Capabilities	0.804	0.833
Innovation Capability	0.725	0.830

Source: SmartPLS Data Processing 4, 2024

If a score shows 0.6 to 0.7, a Cronbach's Alpha score of more than 0.7 is said to be reliable.(Sarstedt, Ringle and Hair, 2021). Based on the table above, most of the constructs have composite reliability and Cronbach's alpha values > 0.7 so they are concluded to be reliable.

EvaluationStructural Model

The evaluation stage of the structural model (inner model) includes testing the goodness of the model (model fit) and hypothesis testing. Test the goodness of the model by observing the R-square (R2) and Q-square (Q2) scores. Partial hypothesis testing by observing significance scores on the influence between variables (direct and indirect effects). Next, the Multi-Group Analysis (PLS-MGA) stage involves observing significant differences in influence between the two types of endorsers. The test results are as in the following discussion:

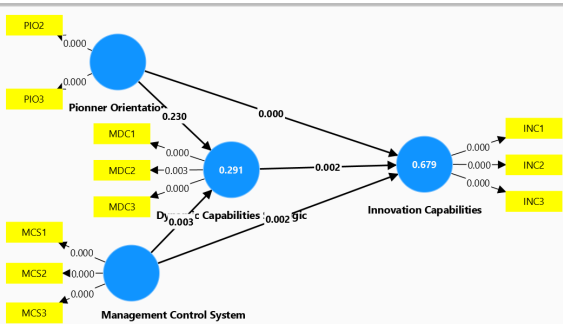


Figure 3. Bootstrapping Test Results
Source: SmartPLS Data Processing 4, 2024

Fit Models

The R-Square (R²) value functions as a tool to determine the influence on the structural model in SEM-PLS. The test results with an R-square value of almost 0.67 were considered strong, 0.33 as moderate, and 0.19 as weak (Chin & Wynne, 1999). The prediction of the strength of influence in the structural model is as follows:

Table 6. R-Square Test Results

Variable	R Square	Criteria
Dynamic Strategic Capabilities	0.291	Weak
Innovation Capabilities	0.679	Strong

Source: SmartPLS Data Processing 4, 2024

Based on this table, it can be seen that the R-square value of the endogenous variable Dynamic Capabilities Strategic is 0.291. This value explains that the strength of the Pioneer Orientation and Management Control System variables in predicting Dynamic Strategic Capabilities is 29.1% and is considered to have weak criteria. Meanwhile, the R-square value of the endogenous variable Innovation Capabilities is 0.679. This value explains that the strength of the Pioneer Orientation and Management Control System variables in predicting Innovation Capabilities is 67.9% and is considered to have strong criteria.

Hypothesis Testing (Direct Influence)

Testing hypotheses in research through observing original sample estimates T Statistics scores as a tool for determining the direction of construct correlation. In the range of +1, the original sample value is considered to have a positive influence, whereas in the range close to -1 it shows a negative correlation (Sarstedt, Ringle and Hair, 2021). If the T-statistic value exceeds 1.96 and

you can also see the p-values are less than the significance level (between variables are significant. The test results are as follows:

Table 7.Path Coefficients Test Results

	Original Sample (O)	T Statistics (T)	P Values	Information
Pioneer Orientation => Dynamic Strategic Capabilities	0.131	0.739	0.230	Positive Not Significant
Management Control System => Dynamic Strategic Capabilities	0.468	2,765	0.003	Significant Positive
Pioneer Orientation => Innovation Capabilities	0.423	4,735	0,000	Significant Positive
Management Control System => Innovation Capabilities	0.468	2,765	0.003	Significant Positive
Dynamic Strategic Capabilities => Innovation Capabilities	0.331	2,886	0.002	Significant Positive

Source: SmartPLS Data Processing 4, 2024

Based on the table above, the relationship between study variables on direct influence can be explained as follows:

- a. The value of the influence of Pioneer Orientation on Dynamic Strategic Capabilities has a value of 0.131 with a p-value of 0.230 (> 0.05). This shows that H1 is rejected, namely Pioneer Orientation does not have an insignificant positive influence on Dynamic Strategic Capabilities.
- b. The value of the influence of the Management Control System on Strategic Dynamic Capabilities has a value of 0.468 with a p-value of 0.003 (> 0.05). This shows that H2 is accepted, namely the Management Control System has a significant positive influence on Strategic Dynamic Capabilities.
- c. The influence value of Pioneer Orientation on Innovation Capabilities has a value of 0.423 with a p-value of 0.000 (> 0.05). This shows that H3 is accepted, namely Pioneer Orientation has a significant positive influence on Innovation Capabilities.
- d. The value of the influence of the Management Control System on Innovation Capabilities has a value of 0.448 with a p-value of 0.003 (> 0.05). This shows that H4 is accepted, namely the Management Control System has a significant positive influence on Innovation Capabilities.

- e. The influence value of Dynamic Strategic Capabilities on Innovation Capabilities has a value of 0.331 with a p-value of 0.002 (> 0.05). This shows that H5 is accepted, namely Dynamic Strategic Capabilities have a significant positive influence on Innovation Capabilities.

Hypothesis Testing (Indirect Influence)

Mechanistically, testing indirect relationships uses the same determination tools as the direct relationships in the explanation above. The t-statistics value is more than 1.96 or the p-value is smaller than the significance level (between variables is significant. The results of research hypothesis testing can be seen in the following table:

Table 8.Path Coefficients Test Results

	Original Sample (O)	T Statistics (T)	P Values	Information	
Pioneer Orientation => Dynamic Capabilities Strategic => Innovation Capabilities	0.043	0.696	0.244	Positive Significant	Not
Management Control System => Dynamic Strategic Capabilities => Innovation Capabilities	0.155	1,928	0.027	Significant Positive	

Source: SmartPLS Data Processing 4, 2024

Based on the table above, the relationship between study variables on direct influence can be explained as follows:

- a. The value of the influence of Pioneer Orientation on Innovation Capabilities mediated by Strategic Dynamic Capabilities has a value of 0.043 with a p-value of 0.244 (> 0.05). This shows that H6 is rejected, namely Strategic Dynamic Capabilities does not significantly mediate the influence of Pioneer Orientation on Innovation Capabilities.
- b. The value of the influence of the Management Control System on Innovation Capabilities mediated by Dynamic Strategic Capabilities has a value of 0.155 with a p-value of 0.027 (> 0.05). This shows that H7 is accepted, namely Dynamic Capabilities Strategic mediates the influence of the Management Control System on Innovation Capabilities significantly.

Discussion

This research uses basic theory, namely dynamic capabilities, as an interesting topic regarding the discussion of competition, which includes the theory of competitive advantage. In a dynamic environment, organizations can survive when their organizational characteristics are sufficiently adapted to their conditions. Environmental changes require faster and more adaptive responses

from organizations. Organizations need to learn agility, or the ability to operate in volatile and uncertain conditions, known as organizational agility (Budiman et al., 2023).

In the first hypothesis, the results obtained were a T-statistic of 0.739 with a p-value of 0.230, thus indicating that there was no insignificant influence between the pioneer orientation variable on the dynamic capability strategy at the Muhammadiyah Education institution in Ponorogo. This result is different from research (Ruiz-Ortega, Rodrigo-Alarcón and Parra-Requena, 2023b) which states that pioneer orientation influences dynamic capability strategy. Organizations that use a pioneer orientation strategy have a tendency to show 'newness' in the services provided, which in the corporate context can be understood as the introduction of new products.

The research results explain that at Muhammadiyah educational institutions in Ponorogo, the pioneer orientation strategy is not a determining factor in the ability to build a dynamic capability strategy. The Muhammadiyah Education Institution in Ponorogo does not yet fully understand that the pioneer orientation strategy is one of the motives that drives organizations to implement strategic dynamics amidst inevitable environmental changes. Pioneer orientation is understood as another motive so that even though it has attempted to do so, it is not considered as a process in dynamic capability strategy.

The second hypothesis states that the management control system influences the dynamic capability strategy and shows a T-statistic test result of 2.765 with p-values of 0.003, which means there is a significant influence between the two constructs. These results are in line with research (Jutidharabongse et al., 2024) which states that the management control system influences dynamic capability strategy. The management control system functions as an integration between an organization's strategy and operations, driving it towards the pinnacle of organizational success. This facilitates the implementation of a structured framework, careful monitoring of progress, and careful evaluation of performance. As an integral component of the management process, management control systems focus on upholding operational excellence, managing risk preventively, and providing valuable data for wise decision making and resource allocation.

Muhammadiyah Educational Institutions in Ponorogo generally understand and implement management control systems in their organizations. One form is in the form of an institutional quality assurance system which is useful as a basis for determining organizational strategy. In this research, the management control system has a role in building an organization's dynamic capability strategy. Information in the form of data in this system becomes something valuable for organizations in improving their ability to face challenges in the organization's environment, both internal and external.

Meanwhile, for the third hypothesis, the test results show a T-statistic value of 4.735 with p-values of 0.000, so it can be concluded that the pioneer orientation construct has an influence on innovation capabilities at the Muhammadiyah Educational Institution in Ponorogo. Theoretically, pioneer orientation and innovation ability are interrelated theories. Orientation encourages the emergence of a "novelty" that is pioneering by other actors, while innovation characterizes "newness" that has not existed before by other actors. The results of the research show that the Muhammadiyah Educational Institution in Ponorogo considers that the pioneer orientation strategy needs to be developed and improved so that the organization has good innovation capabilities.

With competition in education services in Ponorogo and its surroundings, one of the efforts made is to be able to show differentiation which then becomes something that educational institutions

excel at. Based on the interests of the institution, this will be one of the bases for determining policies in providing education services. In the marketing concept, it is easier to understand that this differentiation is an effort to improve service quality, and in general is able to create a boost in performance for organizational stakeholders. The pioneering orientation and ability to innovate shows the determination of the managers of the Muhammadiyah Educational Institution in Ponorogo in competing with fellow educational institutions, private institutions and institutions with state status.

Furthermore, for the fourth hypothesis, the T-statistic test results obtained were 2.765 with p-values 0.003, indicating that there is a significant influence between the management control system on the ability to innovate. These results are in line with research (Li et al., 2024) which states that the management control system influences an organization's ability to innovate. The management control system is an effort to increase the organization's self-confidence to form updates in future strategies. An organization's ability to innovate requires internal data and information and this can be obtained from the results of management control. The more accurate the control results, the better the organization's ability to innovate.

In the fifth hypothesis, the results of the T-Statistics test show a value of 2.882 with p-values of 0.002 so it is known that there is an influence between dynamic capability strategies on the ability to innovate at the Muhammadiyah Educational Institution in Ponorogo. Dynamic capabilities can help organizations adapt to changes in the business environment, making them a key factor in creating and maintaining competitive advantage (Jutidharabongse et al., 2024). Organizations that are able to maximize dynamic capabilities will have an advantage in maintaining competition in the environment.

The Muhammadiyah Educational Institution in Ponorogo believes that in managing an organization, a spirit is needed to be ready to face challenges in an ever-changing environment. This mindset will encourage the perpetrators to come up with new things in the established strategy, which will then become an advantage for the organization. Good, unique and effective quality of education services is part of innovative value as a condition for achieving excellence. There needs to be a common perception between managers of educational institutions in understanding readiness to face environmental changes to then encourage innovative thinking patterns.

Furthermore, in testing the indirect relationship, the results of the proposed T-statistics and p-values show different results in the proposed model. In the first model, dynamic capability strategy does not mediate the relationship between pioneer orientation and innovation ability with a T-statistic of 0.696 with p-values of 0.244. The results of this research indicate that the pioneer orientation does not bypass the dynamic capability strategy on the ability to innovate. The previous model also shows no effect between pioneer orientation and dynamic capability strategy, and shows positive results when tested with innovation ability. The results of this test do not indicate that there is an influence of readiness to face environmental changes on the relationship between being an organization that starts with the urge to create new things from an organization. Although the results show that dynamic awareness has an impact on the emergence of enthusiasm for innovation.

Meanwhile, in the second mediation model, the T-Statistics test results obtained were 1.928 with p-values 0.027, thus showing the results that the dynamic capability strategy construct has an influence in accelerating the relationship between the management control system construct and the ability to innovate. In this research, the relationship between management control systems and innovation ability remains the same in direct and indirect relationships. The Company's ability to face changes in the organizational environment is stated to encourage improvements in

the quality of the management control system which then becomes the basis for innovation for the organization being managed. The Muhammadiyah Education Institution in Ponorogo realizes that it is very important to maintain two strategies, namely a good management control system and the ability to manage environmental changes, in order to be able to provide maximum service quality for the education market.

Based on the overall results in this research, we can see that in general a dynamic capability strategy is needed by organizations operating in the education sector. In the midst of intense competition in providing education services, a dynamic capability strategy is needed to create a competitive advantage. Competitive advantage in this case is demonstrated by the emergence of innovation as one of the 'offers' of educational institutions in their competition. Innovation arises with increasing motivation to be the first to offer new things, as well as the increasing quality of management control systems. These four aspects need to be owned by organizations in this modern era, and really open up integration with other strategies, so that marketing theory becomes one of the considerations in reconfiguring educational institutions in improving the quality of their services.

CONCLUSION

Based on the test results and discussion in this research, we can see that of all the hypotheses presented, there are five hypotheses that have a direct and significant influence and two hypotheses that have no influence. The relationship between pioneer orientation and dynamic capability strategy, as well as the role of dynamic capability strategy in mediating the relationship between pioneer orientation and innovation ability, is stated to have no influence. However, in general a dynamic capability strategy is needed by organizations operating in the education sector. In the midst of intense competition in providing education services, a dynamic capability strategy is needed to create a competitive advantage. Competitive advantage in this case is demonstrated by the emergence of innovation as one of the 'offers' of educational institutions in their competition. Innovation arises with increasing motivation to be the first to offer new things, as well as the increasing quality of management control systems. These four aspects need to be owned by organizations in this modern era, and really open up integration with other strategies, so that marketing theory becomes one of the considerations in reconfiguring educational institutions in improving the quality of their services.

Based on the results of this research, the limitation that researchers are aware of is that the results presented are a representation of the data analyzed. Meanwhile, the data analyzed is the result of distributing questionnaires which allows closed answers by respondents. If we add more descriptive data presentation results, the researcher considers that the results obtained will be more interesting and complete. This is to open up respondents' perspectives on dynamic capability strategies in an organization

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