

Conference Paper

Mediating Roles of Innovation Capability and Customer Performance in Seniority Management–Financial Performance Relationship: Experience of SOEs in Indonesia

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Abstract

This study aims to investigate the mediating effect of innovation capability and customer performance on the relationship between seniority-based management and financial performance. The main contribution of this study is to empirically test the resource-based theory using a structural equation model. This is designed as a quantitative study at explanatory level using a structural equation modelling. As many as 115 managers of state-owned enterprises (SOEs) and their subsidiaries in Indonesia participated. Results show the following: First, seniority-based management affects financial performance. Second, innovation capability does not mediate the relationship between seniority-based management and financial performance. Third, customer performance does not mediate the relationship between seniority-based management and financial performance. Finally, innovation capability and customer performance mediate the relationship between seniority-based management and financial performance. This study concludes the strategic roles of innovation capability and customer performance.

Keywords: seniority-based management, innovation capability, customer performance, financial performance

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1. Introduction

From the perspective of shareholders, financial performance is the fruit of their investment after not consuming their money and bearing risk for a period of time. The success or failure of a company is ultimately judged by its financial performance. However, financial performance is just the end result, because it is triggered by many factors that eventually produce the competitive advantage of a company within the industry in which it operates. Financial performance is driven by customer performance and internal process performance (Kaplan & Norton, 2004).

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Innovation is often associated with young age, because this is generally when human creativity is explored. Seniority-based management (age and experience) is suspected to be the cause of low innovation and has a long-term impact on a company's failure. This statement is supported by several phenomena in Japan when companies recruit new graduates and pay low salaries. Then, companies raise salaries following age and experience (Japantimes, 2014). So, it is through raising awareness in Japan itself that seniority-based management is associated with low innovation performance and, finally, financial performance. Ahead of Japan, Korean conglomerates (chaebols) have shifted from traditional value to modern value. This movement makes Korean businesses less tolerant of *seniority-based management* practices. The new performance-based reward system calls for an *end* to the owner-dominated system and a progression to a professional *management* system (Chung, Yi, & Jung, 1997).

Customers in the information age demand more knowledge-based and innovative products. Innovation capability is driven by research and development. Not only high-income countries want to make innovation-driven growth, but also developing countries increasingly design policies intended to increase their innovation capacity. For example, ahead of Indonesia, Malaysia also wants to become a high-income country by increasing innovation capability through R&D (Global Innovation Index, 2015).

This study is important because it contributes in providing empirical evidence of resource-based theory, especially the mediating effect of innovation capability and customer performance on the relationship between seniority-based management and financial performance. This study is focused on the state-owned enterprises in Indonesia for the reason of their increasing contribution to the state budget and widespread practices of seniority-based management.

2. Literature Review

2.1. Seniority-based management and financial performance

Age and seniority is a universal issue in societies around the world. However, each culture has a different perspective in dealing with seniority from time to time, especially when it comes to the way to better manage organization in the information age. Traditionally, seniority occupied dominant positions in society because the elderly were considered as the locus of knowledge, power and authority (Condon & Yousef, 1975). Carmichael (1989) also states that the practice of valuing the elderly can be

demonstrated by the levels of language used by the youth when speaking to the elderly to show respect and by the special treatment of the elderly in the household, and also by the national policy that is designed to protect the elders' welfare. Most Asian nations, including Indonesia, highly value seniority, which refers to both age and length of service in an organization.

The failure of big companies in Japan and the success of Korean conglomerates prove that seniority-based management has significant negative impact on financial performance. Seniority-based management is blamed for the failure of a company in the information age because of its low ability of innovation to meet the demand of knowledge-based customers. Therefore, the following hypothesis can be formulated:

H1: Seniority-based management affects financial performance

2.2. Seniority-based management, innovation capability and financial performance

Nishyama (1971) states that seniority is one of the most critical factors in determining a person's authority and status in an organization. Senior executives enjoy freedom in initiating an idea, a topic, or a decision in organizations. Seniority not only determines whether the message is considered important, but also commands respect and disarms criticism. Companies in the information age operate in more challenging environments and, therefore, developing innovation capability is vital for knowledgeable customers. Innovation means the adoption of a new idea. Dobni (2010) concludes that firms that possess high innovation orientations engage in value creation strategies, for example, developing new products/services. Innovation can be regarded as an organizational capability, because it is an act that deploys resources with a new ability to create value (Yang, Marlow, & Lu, 2009). Building innovation capability is important, as innovation plays a key role in the survival and growth of organizations (Francis & Bessant, 2005). Thus, senior executives will affect innovation activities within the company. Because innovation is mostly associated with younger age, seniority-based management tends to negatively affect innovation capability.

Studies by Smith, Busi, Ball, and van der Meer, (2008), Saunila and Ukko (2011) and Kallio, Kujansivu, and Parjanen (2012) have identified the common factors shared by innovative organizations and the factors that impact on the ability to manage innovation. More specifically, it is stated that innovation capability has been divided into seven aspects, namely: participatory leadership culture, ideation and organizing structures, work climate and wellbeing, know-how development, regeneration, external

knowledge and individual activity. A recent study by Saulina (2014) has proved that innovation capability affects financial performance. The higher the innovation capability, the higher the financial performance. Therefore, the following hypothesis can be formulated:

H2: Innovation capability mediates the relationship between seniority-based management and financial performance

2.3. Seniority-based management, customer performance, and financial performance

Customers in the information age are different from traditional customers. Information communication technology has changed drastically the characteristic of modern customers. Bolen (2016) shows at least seven characteristics of modern customers as the following: around-the-clock-shopping, consumers are in control, omnichannel shopping, content consumers, global experience, global experience and social sharers. Seniority-based management that prefers a traditional style in managing an organization is no longer suitable to meet the demands of modern customers. Therefore, senior-based management will negatively affect customer performance in the information age and, furthermore, unsatisfied modern customers will negatively affect financial performance. Therefore, the following hypothesis can be formulated:

H3: Customer performance mediates the relationship between seniority-based management and financial performance

2.4. Seniority-based management, innovation capability customer performance and financial performance

As stated earlier, seniority-based management negatively affects innovation capability. Innovation capability has a positive effect on customer performance in the information era. Furthermore, customer performance positively affects financial performance. Therefore, the following hypothesis can be formulated:

H4: Innovation capability and customer performance mediate the relationship between seniority-based management and financial performance

3. Methods

This study is quantitative in nature and was conducted in the state-owned enterprises (SOEs) and their subsidiaries. There are 119 SOEs in Indonesia. Because the number of the SOEs is limited and the exact number of managers is unknown, three questionnaires were sent to each SOE and its subsidiary. Therefore, total questionnaires sent were 357. As many as 115 managers participated in this study with a response rate of 32 per cent. However, in terms of data completeness, only 112 questionnaires were processed. The conceptual model of this study is presented in Figure 1.

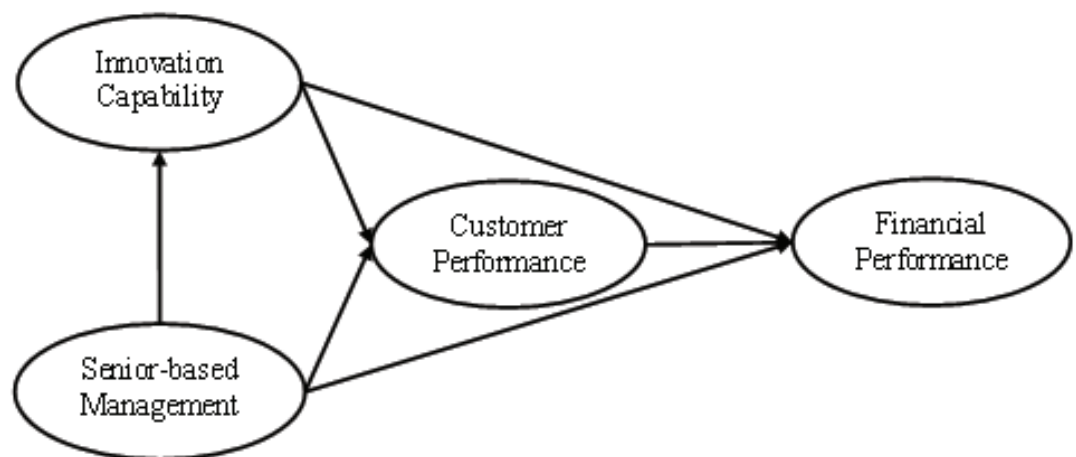


Figure 1: Research model.

Financial performance is defined as the perceived performance of improving cost structure, increasing asset utilization, expanding revenue opportunities and enhancing customer value. This study uses those elements of financial performance developed by Kaplan and Norton (2004). This perceived financial performance is measured by a five-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Customer performance is defined as the perceived performance of proposing customer value, which consists of product/service attributes (price, quality, availability, selection, functionality), relationship (service, partnership), and image (brand). This study uses those elements of customer value developed by Kaplan and Norton (2004). This perceived customer performance is measured by a five-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Innovation capability is the perceived common factors shared by innovative organizations and the factors that impact on the ability to manage innovation. Similar to Saunila and Ukko (2011), this study uses seven aspects of innovation capability,

namely: participatory leadership culture, ideation and organizing structures, work climate and wellbeing, know-how development, regeneration, external knowledge and individual activity. This perceived innovation capability is measured by a five-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Seniority-based management refers to the perceived characteristics of decision-making within an organization. Kume (1985) states that seniority-based management can be recognized using five components, namely: locus of decision, initiation and coordination, mode of reaching decision, decision criteria and communication style. This perceived seniority-based management is measured by a five-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

TABLE 1: Descriptive statistics.

Variable	Theoretical score		Actual score		Mean	SD
	Min	Max	Min	Max		
Seniority-based management	1.00	5.00	1.00	3.80	1.54	0.54
Innovation Capability	1.00	5.00	1.43	5.00	4.35	0.68
Customer Performance	1.00	5.00	1.67	5.00	4.36	0.62
Financial Performance	1.00	5.00	1.25	5.00	4.50	0.72

Table 1 shows a wide range of responses. The mean value of 1.54 revealed disagreement of managers on the existence of seniority-based management. This portrayed the current condition where the younger generation has been starting to lead the SOEs. The mean value of 4.35 showed the relatively strong agreement of managers on the importance of innovation capability. The mean value of 4.36 showed the strong agreement of managers on the importance of customer performance, and, finally, the mean value of 4.50 revealed the relatively strong agreement of managers on the increasing financial performance.

4. Results and Discussions

To test the hypotheses, variance-based structural equation modelling was employed. Data were run using PLS (partial least squares) WARP 5.0 software. The following reasons justified the use of PLS in this study. Firstly, it does not require a normal distribution assumption (Chin & Newsted, 1999). Secondly, it can handle multicollinearity among independent variables. Finally, it gives solution to small sample size.

PLS examines both measurement and structural model. The measurement model specifies the relationship between indicators and the constructs. The measurement model assesses the reliability and validity of indicators relating to the constructs.

Meanwhile, the structural model specifies the relationship among constructs. Therefore, PLS is used to assess validity of constructs within the total model (Chenhall, 2005).

4.1. Measurement model analysis

This study uses a measurement model to evaluate the relationship between indicators and constructs by assessing the reliability and validity relating to specific constructs. Table 2 shows that the loading value of each indicator has met the requirement of the convergent validity (above 0.60) and is significant (less than 0.0001). This indicates that the indicator is accounting for at least 60 per cent of the variance of the underlying construct (Chin, 1998). The composite reliability coefficients for all constructs are above the accepted level of 0.70, as suggested by Nunally (1967).

Convergent validity and discriminant validity are used to assess construct validity. The average variance extracted (AVE) is employed to assess convergent validity with a measure of 0.50 or more, as suggested by Hulland (1999). As seen in Table 2, the AVEs of all constructs of this study are above 0.50 and, therefore, it provides evidence of adequate convergent validity.

Discriminant validity is assessed by evaluating the square roots of AVEs to the correlation between constructs. It is valid when the square roots of AVEs are greater than the correlation between the construct to another construct. Table 3 shows the correlations among constructs in the off-diagonal and the square root of AVE in the diagonal, and it proves discriminant validity because the diagonal elements are all greater than their respective off-diagonal elements. Overall, it concludes that the measurement model is valid.

4.2. Structural model analysis

A step-wise approach is employed following Hartman and Slapnicar (2009). Firstly, hypothesis H₁, stating that seniority-based management affects financial performance, was tested. Secondly, the first mediating variable of innovation capability was introduced to test hypothesis H₂ stating that innovation capability mediates the relationship between seniority-based management and financial performance. Thirdly, the second mediating variable of customer performance was introduced to test hypothesis H₃ stating that customer performance mediates the relationship between seniority-based management and financial performance. Finally, hypothesis H₄, stating that

TABLE 2: Reliability and convergent validity.

Latent Variable	Loading	P value
Seniority-based Management (composite reliability = 0.89; AVE = 0.512) (Composite reliability= 0.89; AVE = 0.512; Cronbach alpha =)		
Seniority-based Management 1	0.637	<0.0001
Seniority-based Management 2	0.795	<0.0001
Seniority-based Management 3	0.738	<0.0001
Seniority-based Management 4	0.702	<0.0001
Seniority-based Management 5	0.695	<0.0001
Innovation Capability (composite reliability= 0.907; AVE = 0.582) (Composite reliability= 0.907; AVE = 0.582; Cronbach alpha = 0.880)		
Innovation Capability 1	0.764	<0.0001
Innovation Capability 2	0.786	<0.0001
Innovation Capability 3	0.757	<0.0001
Innovation Capability 4	0.674	<0.0001
Innovation Capability 5	0.804	<0.0001
Innovation Capability 6	0.800	<0.0001
Innovation Capability 7	0.748	<0.0001
Customer Performance (Composite reliability= 0.792; AVE = 0.559; Cronbach alpha = 0.606)		
Customer Performance 1	0.723	<0.0001
Customer Performance 2	0.749	<0.0001
Customer Performance 3	0.771	<0.0001
Financial Performance (Composite reliability= 0.883; AVE = 0.655; Cronbach alpha = 0.824)		
Financial Performance 1	0.786	<0.0001
Financial Performance 2	0.815	<0.0001
Financial Performance 3	0.787	<0.0001
Financial Performance 4	0.847	<0.0001

TABLE 3: Discriminant validity.

	Seniority-based Management	Innovation Capability	Customer Performance	Financial Performance
Seniority-based Management	0.715	0.142	0.092	-0.106
Innovation Capability	0.142	0.763	0.416	0.355
Customer Performance	0.092	0.416	0.748	0.445
Financial Performance	-0.106	0.355	0.445	0.809

innovation capability and customer performance mediate the relationship between seniority-based management and financial performance, was tested.

Table 4 shows the PLS results. As seen in Panel A, seniority-based management directly affects financial performance (coefficient: 0.14; *P*-value 0.03; $R^2 = 0.02$). Therefore, hypothesis H1 is supported.

TABLE 4: PLS results.

Panel A. Direct Effect		Path to		
Variable		Financial Performance		
Seniority-based Management		0.14 (P value: 0.03)		
R^2		0.02		
Panel B. Testing the mediating effects				
Variable	Path to			
	Innovation Capability	Financial Performance		
Seniority-based Management	0.18 (P value: 0.02)	0.16 (P value: 0.04)		
R^2	0.03	0.32		
Variable	Customer Performance		Financial Performance	
Seniority-based Management	0.01 (P value: 0.47)	0.45 (P value <0.01)		
R^2	0.23	0.32		
Variable	Innovation Capability	Customer Performance	Financial Performance	
Seniority-based Management	0.18 (P value: 0.02)	0.48 (P value <0.01)	0.45 (P value <0.01)	
R^2	0.03	0.23	0.32	

By introducing innovation capability as a mediating variable, further analysis reveals that seniority-based management affects innovation capability (coefficient: 0.18; *P*-value 0.02; $R^2 = 0.03$) and innovation capability affects financial performance (coefficient: 0.45; *P*-value < 0.01; $R^2 = 0.32$). Before introducing customer performance, the direct effect of seniority-based management to financial performance is positive (coefficient: 0.14 *P*-value: 0.03). After introducing innovation capability, the direct effect of seniority-based management to financial performance is still positive and significant (coefficient: 0.16 *P*-value: 0.02). Then, the variance accounting for (VAF), as seen in Table 5, was employed as suggested by Hair, Black, Babin, Anderson, and Tatham (2013) to further assess a mediating effect. The VAF value of less than 0.20 shows there is no mediation effect of innovation capability to the relationship between seniority-based management and financial performance. Therefore, hypothesis H2 is not supported.

TABLE 5: VAF calculation for Hypothesis H2.

Indirect Effect = 0.18 x 0.16	0.03
Direct Effect (before innovation capability)	0.14
Total Effect	0.17
VAF = indirect effect/total effect	0.18

By introducing customer performance as another mediating variable, further analysis also reveals that seniority-based management does not affect customer performance management (coefficient: 0.01; *P*-value 0.47; $R^2 = 0.23$) and customer performance management affects financial performance (coefficient: 0.14; *P*-value 0.03; $R^2 = 0.02$). Because one of the paths is not significant, hypothesis H3 is, therefore, not supported.

The final assessment of the mediating effect is the test of hypothesis H4. Before introducing innovation capability and customer performance, the direct effect of seniority-based management on financial performance is positive (coefficient: 0.14; *P*-value: 0.03). After introducing innovation capability and customer performance, the direct effect of seniority-based management on financial performance is still positive and significant (coefficient: 0.16 *P*-value: 0.02). Then, the variance accounting for (VAF), as seen in Table 6, was once again employed. The VAF value of 0.18 shows there is a partial mediation effect of innovation capability and customer performance to the relationship between seniority-based management and financial performance. Therefore, hypothesis H4 is supported.

TABLE 6: VAF calculation for Hypothesis H4.

Indirect Effect = 0.18 x 0.48 x 0.45	0.04
Direct Effect (before innovation capability, customer performance)	0.14
Total Effect	0.18
VAF = indirect effect/total effect	0.22

This study expands several previous studies in seniority management (Carmichael, 1991; Condon & Yousef, 1975; Dobni 2010), in innovation (Francis & Bessant, 2005; Kallio et al., 2012; Saunila & Ukko, 2011; Smith et al., 2008; Yang et al., 2009), in customer performance (Bolen, 2016), and in financial performance (Kaplan & Norton 2004). This study integrates those issues of seniority-based management, innovation capability, customer performance and financial performance in a more complex and integrative structural model.

This study indicates that seniority-based management does not negatively impact financial performance of the SOEs in Indonesia. Leadership style may contribute to this. Many senior executives in Indonesia, especially in government organizations and SOEs, follow a leadership principle called '*tut wuri handayani*'. This means that a leader has to push his/her younger generation to better perform.

This study provides empirical evidence that seniority-based management affects innovation capability, then innovation capability affects customer performance, and,

finally, customer performance affects financial performance. It proves the cause-effect relationship or logical steps used in the strategy map framework developed by Kaplan and Norton (2004). Therefore, this study supports the resource-based theory.

5. Conclusion

This study concludes that (1) seniority-based management affects financial performance; (2) innovation capability does not mediate the relationship between seniority-based management and financial performance; (3) customer performance does not mediate the relationship between seniority-based management and financial performance, and (4) innovation capability and customer performance mediate the relationship between seniority-based management and financial performance.

The results of this study imply that leaders of SOEs in Indonesia need to implement innovation strategy in order to develop innovation capability. This is considered a strategic initiative needed in the era of demanding customers. Improvement in customer service will lead to better financial performance in the future.

This study has the following limitations. In terms of research method, this study uses variance-based structural equation modelling. In terms of causation, this approach is still debatable. Therefore, future study needs to address this issue by conducting a similar study using a different approach, such as an experimental approach. The sample of this study covers only SOEs and their subsidiaries. This may raise the issue of generalization. Therefore, future study needs to expand to a different sample setting, such as public and/or private sectors. This study uses Likert-scale as its measurement. This may lead to the reality that data are based on the perception of managers rather than direct measurement. Further study also needs to address this weakness by developing direct measurement of the variables. Notwithstanding the previous limitations, it is believed that this study contributes to resource-based theory in terms of providing a deeper understanding of the relationship between seniority-based management, innovation capability, customer performance and financial performance in the SOEs in Indonesia.

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