

Dynamic Capabilities : Evidence from Agriculture Cooperatives in Indonesia

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Abstract

The growth cooperatives membership in Indonesia has led to a range of economic and business questions about how these cooperatives should be best organized and operated. One important question relating to cooperatives organization considering their rapid growth in number and size is the appropriate sizing of cooperatives for long-run economic viability. This paper aims at exploring contributions of dynamic capabilities and organizational culture in performance of agriculture cooperatives in Indonesia. This study use structural equation model (SEM) to explore a theoretical model which links various dynamic capabilities, organizational culture, competitive advantage and performance. Technical samples in this research are simple random sampling with a large sample of 241 agriculture cooperatives from five region in Indonesia . This study finds that both dynamic capability and organizational culture of the agriculture cooperatives in Indonesia contribute significant and positive effect to their competitive advantage as well. On the other hand, organizational culture in the Indonesian agriculture cooperatives provide positive effect solely to their performance; yet not for their performance which is in significantly affected by the dynamic capability.

Keywords: Dynamic capabilities; organizational culture; competitive advantage; performance; agriculture, cooperatives.

1. Introduction

Dynamic capabilities and organizational culture has a vital role in business operation and financial and non-financial aspect such as decision making as a big role of management. Some scholars believe that dynamic capabilities are the key to firm performance [1, 50, 51]. Many researchers claim that dynamic capabilities and organizational culture play an important role between competitive advantage and performance [11, 25, 55]. Based from the theories about dynamic capabilities and organizational culture, agriculture cooperatives should have good dynamic capabilities and organizational culture because the cooperatives' ability in developing it is roles and functions to sustain their business that they can successfully compete with other entrepreneurs.

The organizational culture stand out as one of the factor that are have effect to gaining competitive advantage for being a better from competitor. A appropriate organizational culture can drive a conducive situations, which in turn can get a successful organization and critical in developing the confidence and trust of people in the group [25]. Define of competitive advantage as competencies to make strategic plan that cannot match with competitor. A organizational culture as activator to supports and stimuly of people with the precondition ability and ability needed to get the job done. Venture to encourage competitive advantage is to continuously encourage individuals to improve new advantages successes and failures of an organization depends on the level and purposes of the value created by the organizational culture. If organizational culture in the firm is totally fixed in their system to encouraging subordinates to have more skills the organizations can gain an edge against its competitors [52]. Based on existing theory, organizational culture is considered important in improving the performance of which can lead to the creation of competitive advantage.


Agriculture cooperative in Indonesia have development program during the decades of 1970s and 1980s aimed at boosting food crop production and productivity. The successful effort was due to the massive use of agriculture technology, supported with specially designed supporting institutions such as extension institutions, seed producer institutions controlled by the state, and various cooperative providing credits from national banks and distributing agriculture inputs, as well as regulated operations at the field level. In the marketing side, the Board of Logistics (BULOG), with its operating organizations at the field level (Depot of Logistics or DOLOG) helped farmer to market their commodity to further distributed to the consumers. The institutional coercion, including cooperative organizations, to increase food crop and other agriculture production, started in 1964-65 to mid-decade of 1990's [40, 47, 57]. The evolution of coercive agriculture-related institutions went on in line with the central government's

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political commitment, covering the establishment and coercion of Village Unit Business Board (Badan Usaha Unit Desa, or BUUD), and Farm Credit (Kredit Usaha Tani, KUT). The BUUDs, which further evolved to Village Unit Cooperative or KUD (*Koperasi Unit Desa*), on the other hand, distributed farm inputs such as seeds, fertilizer and pesticides at subsidized prices [42]. Furthermore, a guaranteed floor price for paddy and local storage facilities was put in place to encourage further adoption. In a case, BULOG (*Board of Logistic*) played prominent roles to establish facilities and to ensure that farm commodity flowed to the other party without much obstacle.

In the early 2013, the number of Indonesian cooperatives increased from 170.411 units in 2009 to 200.808 units. From this data, the active cooperatives in 2013 was only 142.387 units while then non-active was 58.421 units. It is obvious that almost 50% of Indonesian cooperatives are non-active. This configuration seriously affects government incentive programs and causes distortion in the growth of the cooperatives' self-reliance for the growth of the cooperatives does not attain the growth of population. It is the similar condition with Growth of Business Value (GBV) of agriculture cooperatives which in 2011-2012 decreased to 23.74% and increased 23.25% in 2012 yet with its in significant progress. This growth is not equivalent for the total Indonesian populations always increase rapidly. The case is also the same with the agricultural cooperatives for its shrinking growth. The growth is only 6.03% in 2012 and even decrease to 3.25% in 2013 (Data source Indonesia Ministry of Cooperatives and SMEs, 2013). It shows that the general development of Growth of Business Value and cooperatives growth is not as good and steady as people expect. Based on this existing problem, the agriculture cooperatives should maintain strategic initiatives to restore their existence.

Based on this background, this study aims to address these research gaps, this study explores the effects of dynamic capabilities and organizational culture on performance. As such, this research contributes to existing literature by entailing the new research context: Indonesia clarifies the debates on the effect of dynamic capabilities, organizational culture on firm performance. This paper is organized as follows; section 2 presents focal constructs of interest and the relationship among them and develops related hypotheses. Section 3 provides the study methodology, and section 4 shows the empirical result and five discussion and conclusions. Finally, the paper provide discussion and conclusion.

2. Literature Review

2.1. The effect of dynamic capabilities and organizational culture on competitive advantage

Wang and Ahmed (2007) the reviews of the effects of dynamic capabilities should be achieving sustainable advantage. Along with a change, to maintain competitive advantage is not easy, therefore, to gain a sustainable competitive advantage some researchers to gain a competitive advantage in the short term first [9]. Based from the literature, this study need to know how is dynamic capabilities and organizational

culture can sustain of competitive advantage and performance in agriculture cooperatives to give satisfaction to customers better than existing competitors. Through the strategies management, firms should be growth for competitive advantage in a certain time. Nevertheless, in an increasing dynamic capability with quick changing in demand and frequent change in the firm environment, the prior competitive advantage may become traps, which needs strategic sense-making, timely decision-making and dynamic implementation to reorganize the competitive advantage. Decisions can generate profits in the end be the strength and strategic advantages of an organization [22].

The organizational culture stand out as one of the factor that are have effect to gaining competitive advantage for being a better from competitor. A appropriate organizational culture can drive a conducive situations, which in turn can get a successful organization and critical in developing the confidence and trust of people in the group [25]. Define of competitive advantage as competencies to make strategic plan that cannot match with competitor. A organizational culture as activator to supports and stimuly of people with the precondition ability and ability needed to get the job done. Venture to encourage competitive advantage is to continuously encourage individuals to improve new advantages successes and failures of an organization depends on the level and purposes of the value created by the organizational culture. If organizational culture in the firm is totally fixed in their system to encouraging subordinates to have more skills the organizations can gain an edge against its competitors [52]. Based on existing theory, organizational culture is considered important in improving the performance of which can lead to the creation of competitive advantage. From empirical literatures, we propose the following hypotheses:

H1a. Dynamic capabilities have a positive impact on competitive advantage.

H1b. Organizational Culture have a positive impact on competitive advantage

2.2. The effect of dynamic capabilities and organizational culture on performance

Dynamic capabilities are organizational and strategic routines through which managers change their resources to generate value-creating strategies [13]. By promoting new strategic paths, dynamic capabilities will contribute to overall firm performance ([50]; Wu, 2007; [58, 59]). The dynamic view of capabilities is particularly important in international markets (e.g., Griffith & Harvey, 2001; [43, 51]), where firms are completely exposed to opportunities and threats associated to rapid changes in customers, technology and competitors [51]. Success depends on the organization's ability to constantly renew and reconfigure its resources, and adjust them to international constraints [31]. It is therefore essential that organizations ensure the importance of their internal resources to match the demand [6]. Dynamic capabilities are reflected through a firm's adaptive capability in terms of strategic flexibility of resources and the alignment between the firm's assets, its organizational form and the constantly shifting strategic needs [46]. Therefore, superior dynamic capabilities enable firms to

respond more easily to opportunities in the marketplace [13, 50], contributing to the improvement of performance (e.g., [24], Lisboa et al., 2011).

Organizational culture play an important role in shaping behavior and performance of organizational members. According to Deal and Kenedy (1982) performance improvement is linked to deliberate efforts by management towards developing organizational culture. In connection to this point; Bennett, Fadil and Greenwood (1994) argue that organizational success depends on achieving a good fit between strategy, structure and culture. Further evidence in support of organizational culture and performance relationship is found in Cooper, Cartwright and Earley (2001) who argue that culture acts as a stabilizer of individual behavior, culture is presumed to create appropriate states of mind—ie the mental, emotional and attitudinal states that precedes effective employee performance referred to earlier. In addition, Giber-son et al. (2009) emphasize that culture is an integrating mechanism that guides organizational behaviour. Once established, culture tends to become self reinforcing. From a functional perspective, culture is viewed as a means of social control by which behaviour and beliefs are shaped and determined [37]. Despite the important role played by organizational culture in driving the behaviour of employees, several studies have reported inconsistent findings on the relationship between organiza-tional culture and performance. Positive association between organizational culture and performance has been established [10, 11, 41]. Conversely, Ott (1989) argues that culture is not universally relevant to all organizations. He contends that not all organizations possess a culture developed to a point that it could have significant influence on performance managment. In support of this view, Byles and Keating (1989) observe that under developed organizational culture may have little or no effect on performance especially where culture is inconsistent with critical success factors. Based on the above background, we propose that:

H2a: Dynamic Capabilities have positive impact on competitive advantage

H2b: Organization culture have a positive impact on competitive advantage

2.3. The influence of competitive advantage on performance

Competitive edge is able to significantly predict the variance in the performance of the organization [45]. It was established that the Resource Based View of the firm's Competitive advantage is one of the key of strategic management theories related to explain the organizational consequences. It is also a part of the larger management theory which has developed to suit the managerial needs of the organizations. Com-petitive advantage is a related concept. It can be viewed from various perspectives, particularly the industrial organization and resource based view (RBV) perception. The industrial organization perspective scrutiny the organizational external market posi-tioning as the serious factor for conquering competitive advantage which means tra-ditional industrial organizational perspective offered strategic management in a sys-tematic model for reviewing external competition inside an industry. The advantage of production attributes is main area of competitive advantage, and it is an important

capability for a firm to survive and succeed in a competitive market, cope with the market competition [39] and to enhance firm performance [28]. The strategic positioning has affected on the performance [4]. As well as, firm's competitiveness has a positive affected on the performance [30].

H3: competitive advantage have positive impact on performance

3. Methodology

3.1. Samples

The data was collected during December 2014- May 2015. The research sample is collected from five regional (Magelang, Sleman, Bantul, Boyolali and Bogor) agricultural cooperatives that exist in Indonesia, which are operating from different product (Milk, rice, sugar, meat, vegetables and fruits) with a total sample of 250 (see table 1). The sample was selected from five region to get more extensive reserach sample. Respondent should be low to high or senior managers who have been working the same enterprises in agriculture cooperatives for over one year to ensure a full understanding of the firm in agriculture cooperatives. This will enhance data quality. In this study the respondents are workers of agriculture cooperative firms from low position (employee) to high position (senior manager or director).

Extensive literature review is the basis for developing an initial list of items to measure the component of the concept. Then, in order to revise the measurement items, this study carries out interviews with five CEOs from five different agriculture cooperatives which are operating from policy makers and competitors in Indonesia. Questionnaires were distributed to 250 agriculture cooperatives in Indonesia. A total of 9 responses from 250 were determined to be unusable for analysis in this study because respondents did not answer all questions in the questionnaire completely or had the same answer for all question in the questionnaire. The final number of questionnaire responses that were analysed in this study was 241 from 250 regional were those in Magelang, Sleman, Bantul, Boyolali and Bogor).

Respondent demographic in this study, highest gender in Indonesia is male (68.5%). For age criteria, the highest in Indonesia is 36-45 years (40.2%). Highest education in Indonesia is senior high school (53.1%). Finally for tenure, the highest in Indonesia is 5-7 years (38.2%).

This study follows Kline (1998) in checking for missing data points, normality of the data distribution outliers. This investigation uses mean substitution to deal with missing data. To ensure data robustness, Mahalanobis distance is used to check for outliers. The Mahalanobis distance is between 0 and 1 for all observations, indicating that the data conforms to normality and the data set contains no problems with outliers [27]. This study using designs measurements with a 10 point Likert scales which range from "strongly disagree" to "strongly agree".

TABLE 1: Respondent demographics.

Demographics	Sample (N)	Percentage(%)
Gender		
Female	76	31.5
Male	165	68.5
Age		
< 24 years	0	0.0
24-35 years	60	24.9
36-45 years	97	40.2
+46 Years	84	34.0
Education		
Elementary	9	3.7
Junior high school	58	24.1
Senior high school	128	53.1
Diploma	22	9.1
Undergraduate	23	9.5
Master	1	0.4
Tenure		
> 1 year	21	8.7
2 – 4 years	50	20.7
5 – 7 years	92	38.2
>7 years	78	32.4

3.2. Measure

The questionnaire design was developed from a wide review of the literature, which allowed the author to measure the great majority of analyzed variables from valid scales. In order to improve the content validity [19], the author developed a pre-test with ten agriculture cooperatives of the sector. In this sense, the author sent a lengthy questionnaire, in which the managers could indicate the degree of comprehensibility of the questions, as well as express their opinion whether the proposed questions were appropriate for the proposals that the author was trying to make. Likewise, the author also developed discussions in depth with seven CEO and experts in the design of questionnaires. In these meetings, the author went through the questionnaire, so that these experts could establish possible critiques and improvements. After these meetings the author made a clearer presentation of some of the items included in the questionnaire. Finally, the author sent the questionnaire to the CEO of the firm. The author controlled the potential common method bias for the use of self-report questionnaires for a single respondent. Thus, the author developed a principal-axis factor analysis to demonstrate independence between the conceptual dimensions of the dynamic capabilities and performance tactics measures. Given that all of the data were from the same source, loading factor test for common method variance was conducted on all of these items used in the factor analysis. The results from this

rotated principal component analysis revealed that the first factor accounted for a big percentage of the total variance in the items, which indicates that common method source variance is explain the majority of the covariance between the items [44].

3.3. Dependent variable

3.3.1. Performance and competitive advantage

Performance has been a center of attraction for many years. Recent research shows that performance system on regular basis directs to better organizational result. So many organizations inclined towards implementations new or improved firm performance system [53]. Fryers (2009) explain that performance is action based on performance measures and reporting, which result in improvements in behavior, motivation, processes and promotes innovation. As cited in Hawke (2012) performance is an inter-related strategies and activities to improve individuals, teams and organizations.

In comparison to performance frameworks, there are very few performance systems that have been academically developed. Performance as the basic requirement for a successful performance system must have two frameworks: structural and procedural as stated by Medori & Steeple (2000) in the balance scorecard performance system. Performance is measured with 4 aspects: Financial (FIN) perspective, Process (PA), personality (PS) and customer (CS). Financial Aspect is target act with self appraisal and achievement: the role of what is expected, the standards are maintained, the objectives in the future, the knowledge and skills of workers to develop the company coming year. Process aspect denotes working style and management with process improvement. Providing feedback to employees on the success or the achievements and gave an input to employees regarding work processes and their results. Personality aspect including development and interpersonal skill. Finally customer Aspect has a rating system for reviewing the feedback from the previous year concerning the results of the performance, development and plans for the coming year.

Competitive advantage is an organization's efforts to take advantage of a competitor in a miraculous measure such as cost, quality, and speed (Turban et al, 2006). Competitive advantage is the success of a company in overcoming failure (Porter and Millar, 1985, and Porter, 1996), the company with a competitive advantage that can both control the market and gain a greater than average. Development strategy of competitive advantage can be obtained simultaneously through proper design (Howard et al, 1999). Based on the theory developed through the Porter's model of competitive advantage in the market, his explained that in order to build a sustainable and profitable position in competing takes some power strategy. In undertaking the strategy, companies need to develop innovation in the different activities of competitors. ([39]; Neumann, 1994; Wiseman, 1988; Frenzel, 1996; Turban et al, 2006).

Most researchers used data archives (ROA and questionnaire) to measured competitive advantage, but in order to obtain such data is sometimes very difficult. Firms may also feel unsafe and uncomfortable to give their monetary data. According to this problem, we are measure competitive advantage by subjective data (Spanos & Lioukas,

2001), Competitive advantage measures by questions reflected with six financial indicators and nonfinancial indicators. The indicator is including competency (COM), durability (DUR), profitability (PROF), immitability (IM), transferability (TR) and accountability (ACC).

3.4. Independent variables

3.4.1. Dynamic capabilities and organization culture

According to the connotation and dimensions of dynamic capabilities, drawing on existing scales, this study measures dynamic capabilities according to three dimensions as strategic sense-making capacity (SSMC), timely decision-making capacity (TDMC) and change implementation capacity (CIC). According to the aggregate model proposed by Law et al. (1998), the study defines dynamic capabilities as the sum of these three dimensions. For strategic sense-making capacity, this study develops five items in accordance with previous scale [34]. For timely decision-making capacity, this study develops four items [49]. For change implementation capacity, this study develops four items on the amendment of current scales [35].

There are many reasons to eagerly understand the culture of an organization. It may be particularly important during times of change, merger or acquisition or when planning the business and human resource strategies. It may also be an important consideration when an organization is expanding, when the executives may have to decide whether they want to actively monitor the whole culture or allow each new division or geographical area to develop its own culture. Rooted in earlier works to reveal the functional relationships between culture and organizational outcomes (e.g., [8, 18, 56]), Denison's model grew out of his efforts to develop an integrative theory of organizational culture that (1) explain show culture relates to organizational effectiveness, (2) identifies a broad set of traits and value dimensions enabling a fuller understanding of the culture effectiveness relationship, and (3) provides further insights as to the specific processes by which these traits facilitate or inhibit effectiveness. Accordingly, Denison's model states that the four broadly define cultural traits of involvement, consistency, adaptability, admission, collectively facilitate an organization's capabilities for integrating and coordinating internal resources as well as its adaptation the external environment, there by leading to superior organizational performance. The organizational culture questionnaire explores the prevailing culture within an organization across ten dimensions: customer service (CS), conflict management (CM), professionalism (P), human resource management (HR), individual performance (IP), participation (PC), leadership (L), communication (CM), decision making (DM) and Organizational goal integration (OI).

4. Result

4.1. Reliability and validity of the scales

In order to assess the validity and reliability of the reflective measures used in this study, initially we carried out exploratory factor analysis, which confirmed the unidimensionality of the constructs [48]. To assess convergent validity, we evaluated Cronbach's α , average variance extracted (AVE), factor loadings, and composite reliability. For all constructs, Cronbach's α and the factor loadings show values above the required thresholds of 0.7 for exploratory research, respectively [15, 36]. The composite reliability is above the required threshold of 0.7 [20]. To test whether constructs were sufficiently different from each other, discriminant validity was inspected using the Fornell and Larcker (1981) criterion, which calls for a construct's AVE to be larger than the square of its largest correlation with any construct. All constructs used in this study fulfill this requirement. First, the four first-order constructs from dynamic capabilities, organizational culture, competitive advantage and performance all meet the relevant reliability criteria as reported in Table 2. Taken together, these results lend sufficient confidence that the reflective measurement model fits the data well (see Table 2). Overall, we consider the measurement properties of the full model on second-order index acceptable. The study presented in this paper is exploratory in nature as we develop theory as opposed to testing theory. This also applies to the measurement developed to empirically assess dynamic capabilities, organizational culture, competitive advantage and performance.

Second, the dynamic capabilities, organization culture, competitive advantage and performance second-order index displays a Cronbach's α is > 0.70 which indicates high reliability. Third, the composite reliability is > 0.70 and, thus, above the acceptable threshold. For full model index has discriminant validity, for all convergent validity criterion is met is the AVE with value > 0.70 . Summing up, given the exploratory nature of our study that aims to develop theory and the acceptable Cronbach's α , composite reliability and significant factor loadings, we conclude that the properties of the full model index are acceptable.

The correlations between the constructs are sufficiently high, but for dynamic capabilities to performance is not significant. Table 4 summarizes the results of the PLS-SEM analysis, which we discuss in the following section. We assessed the path coefficients and their significance values to test the derived hypotheses. To do so we applied the bootstrapping procedure (with a number of 500 bootstrap samples and 91 bootstrap cases; using individual sign changes) to evaluate the significance of the paths concerning the relevance of investing in dynamic capabilities and when and how they can be leveraged. These contributions are discussed in detail below.

Assessed the path coefficients about direct effect dynamic capabilities on competitive advantage ($\beta=0.729$, $p<0.05$) and direct effect organizational culture on competitive advantage ($\beta=0.124$, $p<0.1$) so it can be concluded that Dynamic capabilities and organizational culture has a positive direct effect on competitive advantage (Model 1&2).

TABLE 2: Reliability Test Results and *Variance Extract* Full Model Data.

Variabel	Indicator	Loading	Loading ²	Error	ej	\sum loading	CR	a	AVE
Dynamic Capabilities	SSMC	0.892	0.795	0.795	0.205	2.392	0.921	0.853	0.797
	TDMC	0.941	0.885	0.885	0.115				
	CIC	0.844	0.712	0.712	0.288				
Organizational Culture	CS	0,718	0.515	0.515	0.485	5.561	0.927	0.858	0.556
	CM	0.826	0.682	0.682	0.318				
	P	0.812	0.659	0.659	0.341				
	HR	0.519	0.514	0.514	0.486				
	IP	0.794	0.630	0.630	0.370				
	PC	0.799	0.638	0.638	0.362				
	L	0.763	0.582	0.582	0.418				
	CM	0.834	0.695	0.695	0.305				
	DM	0.745	0.555	0.555	0.445				
	OI	0.769	0.591	0.591	0.409				
	COM	0.862	0.743	0.743	0.257				
	DUR	0.928	0.861	0.861	0.139				
Competitive Advantage	PROF	0.820	0.672	0.672	0.328	4.341	0.939	0.871	0.723
	IM	0.868	0.753	0.753	0.247				
	TR	0.800	0.640	0.640	0.360				
	ACC	0.820	0.672	0.672	0.328				
	FIN	0.979	0.958	0.958	0.042				
Performance	PA	0.661	0.437	0.437	0.563	2.224	0.827	0.891	0.556
	PS	0.715	0.511	0.511	0.489				
	CS	0.564	0.318	0.318	0.682				

Source: primary Indonesia data proceed, 2015

Direct effect dynamic capabilities on performance ($\beta=0.026$, $p>0.05$), from this analysis, dynamic capabilities has not direct effect on performance. Direct effect organizational culture on performance ($\beta=0.119$, $p>0.01$), its concluded organizational culture is significant have direct effect on performance (Model 3&4).

Assessed the path coefficients about direct effect competitive advantage on performance ($\beta=0.450$, $p<0.01$), so from this analysis competitive advantage have significant direct effect on performance (model 5).

4.2. Hypothesis testing

Consistent with hypothesis 1(a) and (b), the first correlation between dynamic capabilities and competitive advantage ($\beta=0.72$, $p < 0.01$. Considered by themselves, dynamic capabilities have a significant correlation on competitive advantage and hypotheses

TABLE 3: Path Coefficients analysis.

Measurement	(Indonesia Data)
Model 1	
Dynamic capabilities → Competitive advantage (direct effect)	0.729***
Dynamic capabilities → r^1r^2 → competitive advantage (corelation with OC)	0.124***
Dynamic capabilities → Organizational culture → competitive advantage (total effect)	0.605***
Model 2	
Organizational culture → Competitive advantage (direct effect)	0.034*
Organizational culture → r^1r^2 → competitive advantage (corelation with OC)	0.124*
Organizational culture → Dynamic capabilities → competitive advantage (total effect)	0.09*
Model 3	
Dynamic capabilities → Firm performance (direct effect)	0.026
Dynamic capabilities → r^1r^2 → Firm performance (corelation with OC)	0.044
Dynamic capabilities → Organizational culture → Firm performance (total effect)	0.070
Model 4	
Organizational culture → Firm performance (direct effect)	0.119***
Organizational culture → r^1r^2 → Firm performance (corelation with OC)	0.144***
Organizational culture → Dynamic capabilities → Firm performance (total effect)	0.163***
Model 5	
Competitive advantage → Firm performance	0.450***
Dynamic capabilities → Organizational culture	0.649***
R ² (Competitive advantage)	0.514
R ² (Performance)	0.224
***Significant at 0.01 (2-tailed), **significant at 0.05 (2-tailed), *significant at 0.1 (2-tailed).	

1(a) for this research are acceptable. Correlation between organizational culture on competitive advantage is ($\beta=0.67, p < 0.01$, so it can be concluded that the hypothesis 1(b) is also acceptable.

Hypothesis 2(a) and (b), the correlation between dynamic capabilities and performance ($\beta=0.62, p>0.01$. So hypothesis 2(a) of this for Indonesia data is not acceptable but for correlation between organizational culture on performance is $\beta=, p < 0.01$, from the analysis this study is acceptable for hypotheses 2(b). Considered by them, organizational culture in Indonesia has a significant correlation on performance but dynamic capabilities are not significant on performance.

Hypothesis 3, the correlation between competitive advantage and performance ($\beta=0.67, p < 0.01$). Considered by themselves, competitive advantage have a significant correlation on performance. so it can be concluded that the hypothesis three in this study are acceptable.

TABLE 4: Descriptive statistic and correlation matrix.

	Mean	SD	Composite reliability	1	2	3	4
1.Dynamic capabilities	6.95	1.19	-	(-)			
2.Organizational culture	7.18	1.04	-	0.80**	(-)		
3. Competitive advantage	6.60	1.20	-	0.72**	0.67**	(-)	
4. Performance	6.42	0.94	0.82	0.62	0.65**	0.67**	(0.82)

**Significant at 0.01 (2-tailed); *significant at 0.05 (2-tailed)

4.3. Structural equation modeling analysis

First procedure to evaluate goodness of fit model for individual parameter is determining estimation value. If the model does not fulfill the criteria, AMOS gives recommendation to connect some of indicators in order for the model to fit the data.

Measurement for Goodness of Fit-Full Model for Indonesia data was tested using the analysis of Structural Equation Model (SEM). The measurement of GOF covers variables of dynamic capabilities, organizational culture, competitive advantage and performance variables. The results of the analysis have met the criteria of Goodness of Fit-Full Model, i.e. the value of chi-square is =576.468; probability=0,00.; GFI=0.83; AGFI=0.76; TLI=0,90;CFI=0.92; CMIN/DF=2.85; RMSEA=0.08. Based on the analysis of the data, it can be concluded that the model is acceptable.

5. Discussion and Conclusion

This research provides several contributions to management research and practice especially for agriculture cooperatives development in Indonesia. Although dynamic capabilities and organizational culture has been a core focus in research on competitive advantage and performance ([50], the question of whether and how dynamic capabilities affect performance is still not fully addressed [12, 23]. The main contributions of this work to theory are threefold. We provide 1) an operational of dynamic capabilities for use in future research; 2) evidence that the possession of dynamic capabilities is a necessary, but insufficient, condition to achieve superior competitive advantage and performance; 3) knowledge of conditions under which dynamic capabilities and organizational culture are likely to enhance competitive advantage and performance. For management researchers, we also provide insights into the appropriate use of PLS-SEM including a second-order latent construct and confirmatory analysis, and for managers our work offers guidance.

First contribution, dynamic capabilities and organizational culture have contribution for competitive advantage of agriculture cooperatives in Indonesia. This theory is consistent with theory of Teece and Pisano (1994), i.e. competitive advantage of the firm is derived from the dynamic capabilities that are embedded everyday in high

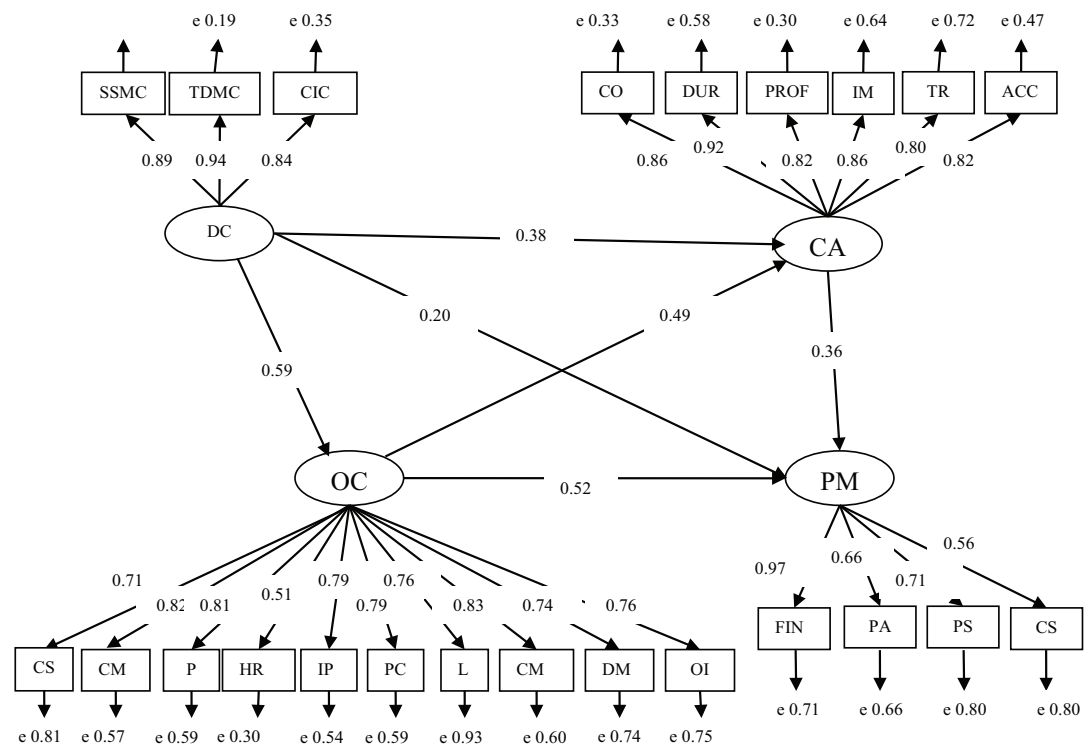


Figure 1: Conceptual representation of hierarchical components model loadings and weights are significant at 0.001 (2-tailed).

performance in the company, is inherent in the company's processes, and conditioned by the development process.

Second, dynamic capabilities in and of themselves are not positively directly related to firm performance. This supports Eisenhardt and Martin's (2000) contention that the possession of dynamic capabilities does not necessarily lead to superior organizational performance, and is in line with similar inconsistent findings reported in the literature. This result further supports our core hypothesis that context matters in making use of dynamic capabilities. In addition, this finding points to the importance of employing multiple performance measures in studies of dynamic capabilities. Dynamic capabilities are costly and can therefore lead either to losses, if their benefits are not realized, or gains, if they are. Some affect short-term performance, whereas others are likely to be important in the long run.

Third, another significant contribution of this study is organizational culture also stands out as one of the components that are important to competitive advantage and performance. Organizational culture has significant correlation with competitive advantage and performance. Consistent of organizational culture learning can develop the ethical environment, which in turn can develop people in the organization with the shared belief, trust and team coordination for critical success [25]. Based on the result analysis, shows that organizational culture have positive impact on competitive advantage and performance of agriculture cooperatives in Indonesia.

The fourth, we assessed the path coefficients and their significance values to test the derived direct effect of dynamic capabilities and organizational culture on competitive advantage and performance. The result of path coefficient test in Indonesia shows that dynamic capabilities have contributed 72% on competitive advantage and organizational culture have significant role for competitive advantage i.e. 12.4%. On the other hand from this research, dynamic capabilities is not play a significant role in performance but organizational culture have significant role for performance from this research i.e. 11.9%. However, the number is not as high as dynamic capabilities have accomplished. Based on this result, we can conclude that the variable of organizational culture has contributed towards for firm performance but dynamic capabilities has not contributed to firm performance of agriculture cooperative in Indonesia (see Table 4).

Fourth, this research also give contribution for manager of the firm agriculture cooperatives and government. Our results emphasize to Indonesian government particularly in the field of agricultural cooperatives is the importance to pay more attention to the policies directed towards the planning and implementation of good organizational culture, especially to make a plan of strategic policy that will determine the firm competitive advantage and performance in agriculture cooperatives. For Manager In dealing with the management of organizational culture, it is firstly necessary to identify as fully as possible the attributes of the existing or new target culture for example the myths, symbols, rituals, values and assumptions that underpin the culture. Subsequently, action can be instigated in any of several key points of leverage.

Overall our results suggest that while organizational culture may influence certain types of performance agriculture cooperatives in Indonesia but for dynamic capabilities is not effect to firm performance.. There exist two basic approaches to culture and, by implication, strategy: conforming (maintaining order and continuity) and transforming (changing and breaking existing patterns) [2]. As demonstrated by the subsequent poor performance of many of Peters and Waterman's (1982) so-called 'excellent' companies, the effectiveness of the chosen approach to organizational culture and strategy at any given time is dependent upon contextual factors relating to both the internal and the external environment [2]. Thus, context determines a culture needs to be maintained or changed, but the strategies adopted are very much determined by the paradigm and perspective subscribed to by the manager or change agent.

This research also contains some limitations. First, this study just explores effects, relationship of dynamic capabilities, organizational culture and performance with many other topics left unexplored. Further researches should explore deeper into other aspects. Second, based on the theoretical assumption, this study has considered an adaptation from some journal articles, but not empirically tested whether this assumption is pertinent. Finally this study employs static and cross-sectional data, which has in evitable drawbacks in reflecting the function and evolution of dynamic capabilities, organizational culture and performance. The application of panel data may be used in the following studies.

References

- [1] Ambrosini, V. and Bowman, C. (2009). "What Are Dynamic Capabilities and Are They a Useful Construct in Strategic Management?", *International Journal of Management Reviews*, vol.11, no 1, pp. 29-49.
- [2] Bate, S. 1994, *Strategies for Cultural Change*, Butterworth Heinemann, Oxford.
- [3] Bennett, R.H., Fadil, P.A. & Greenwood, R.T. (1994). Cultural alignment in response to strategic organizational change: new considerations for a change framework, *Journal of Managerial Issues*, vol 6, no 4, pp 474-90.
- [4] Bustinza, O., Aranda, D., & Gutierrez, L. (2010). Outsourcing, competitive capabilities and performance: an empirical study in service firms. *International Journal Production Economics*, vol 126, pp 276-288.
- [5] Byles, C.M. & Keating, J.R. (1989). Strength of organization culture and performance: Strategic implications, *Journal of Business Strategies*, vol 6, no 2, pp 42-54.
- [6] Camuffo A., Volpato G. (1996). "Dynamic Capabilities and Manufacturing Automation: Organizational Learning in the Italian Automobile Industry", *Industrial and Corporate Change*, vol 5, no 3, pp.813-837.
- [7] Cooper, L.C., Cartwright, S. & Earley, C.P. (2001). *The International Handbook of Organizational Culture and Climate*, 1st edition, Wiley.
- [8] Denison, D.R (1984). Bringing corporate culture to the bottom line. *Organizational Dynamic*, vol 13, no 2, pp 4-22.
- [9] D'Aveni, R. A., Dagnino, G. B., & Smith, K. G. (2010). The age of temporary advantage. *Strategic Management Journal*, vol 31, no 13, pp 1371-138.
- [10] Denison, D.R. & Mishra, A.K. (1995). Towards a theory of organizational culture and effectiveness, *Organization Science*, vol 6, no 3, pp 204-223.
- [11] Deal, T.E. & Kennedy, A.A. (1982). *Corporate Cultures: The Rites and Rituals of Corporate Life*, Reading.
- [12] Drnevich, P.L., Kriauciunas, A.P., (2011). Clarifying the conditions and limits of the contributions of ordinary and dynamic capabilities to relative firm performance. *Strategic Management Journal*, vol 32, pp 254-279.
- [13] Eisenhardt KM, Martin J. (2000). Dynamic capabilities: what are they?' *Strategic Management Journal*, Special Issue, vol 21, no 10-11, pp 1105-1121.
- [14] Fryer, K., Antony, J., Ogden, S. (2009) "Performance management in the public sector", *International Journal of Public Sector Management*, vol 22, no 6, pp. 478-498.
- [15] Fornell, C., Larcker, D.F., (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research* vol 18, pp 39-50.
- [16] Griffith, D. A. and Harvey, M. G. (2001). A resource perspective of global dynamic capabilities, *Journal of International Business Studies*, vol 32, no 3, 597-606.
- [17] Giberson, R.T., Resick, J.C., Dickson, W.M., Mitchelson, K.J., Randall, R.K., & Clark, A.M. (2009). Leadership and organizational culture: linking CEO characteristics to cultural values, *Journal of Business Psychology*, vol 24, pp 123-137.
- [18] Gordon, G. (1985). The relationship of corporate culture to industry sector and corporate performance. In R. H. Kilman, M. J. Saxton, & R. Serpa (Eds.), *Gaining control of the corporate culture*.
- [19] Hambrick, D. (1981) 'Specialization of environmental scanning activities among upper level executives', *Journal of Management Studies*, Vol. 18, pp.299-320.
- [20] Hair, J.F., Ringle, C.M., Sarstedt, M., (2011). PLS-SEM: indeed a silver bullet. *Journal of Marketing Theory and Practice*, vol 19, pp 139-151.
- [21] Hawke, L. (2012). Australian public sector performance management: success or stagnation? *International Journal of Productivity and Performance Management*, vol 6, no 13, pp 10-328
- [22] Haeckel, S. H. (1999). *Adaptive enterprise: Creating and leading sense-and-respond organisations*. Boston: Harvard Business School Press.
- [23] Helfat, C., Finkelstein, S., Mitchell, W., Peteraf, M., Singh, H., Teece, D., Winter, S., (2007). *Dynamic Capabilities: Understanding Strategic Change in Organisations*. Blackwell Publishing, Malden.
- [24] Kaleka, A. (2002). Resources and capabilities driving competitive advantage in export markets: Guidelines for industrial exporters, *Industrial Marketing Management*, vol 31, no 3, pp 273-283.
- [25] Kotler, P & Keller, K. L. (2006). *Marketing management*. (12th ed.). Prentice-Hall
- [26] Kline, R.B. (1998). *Principles and practices of structural equation modeling*, New York, N.Y.: The Guildford Press.
- [27] Kleinbaum, D.G., Kupper, L., & Muller, K.E. (1998). *Applied regression analysis and other multivariate methods*. Belmont, CA: Duxbury Press.
- [28] Kim, J., Song, J., & Koo, C. (2008). Exploring the effect of strategic positioning on performance in the e-business context. *International Journal of Information Management*, vol 28, pp 203-214.

- [29] Kotler, P & Keller, K. L. (2006). Marketing management. (12th ed.). Prentice-Hall
- [30] Kristal, M. M., Huang, X., & Roth, A. V. (2010). The effect of an ambidextrous supply chain strategy on combinative competitive capabilities and business performance. *Journal of Operations Management*, vol.12, no 2, 241-245
- [31] Li, J. (1995). Foreign entry and survival: Effects of strategic choices on performance in international markets, *Strategic Management Journal*, vol 16, no 5, pp 333-351.
- [32] Law, M., Stewart, D., Pollock, N., Letts, L., Bosch, J., & Westmorland, M., (1998). Guidelines for critical review form-Quantitative studies., vol 284, pp 357-362.
- [33] Medori, D. and Steeple, D., (2000). A framework for auditing and enhancing performance measurement systems. *International Journal of Operations & Production Management*, vol 20, no 5, pp 520-533.
- [34] Neil, S., McKee, D., & Rose, G.M. (2007). Developing the organization's sense-making capability: Precursor to an adaptive strategic marketing response, *Industrial Marketing Management*, vol 36, no 6, pp 731-744.
- [35] Noble, C.H. (1999). The Eclectic Roots of Strategy Implementation Research". *Journal of Business Research*, vol 45, pp 119-134.
- [36] Nunnally, J.C., (1978). Psychometric Theory. McGraw-Hill, New York.
- [37] O'Reilly, A.C. & Chatman, A.J. (1996). Culture as a social control: corporations, cults and commitment, *Research in Organizational Behaviour*, vol 18, pp 157-200.
- [38] Ott, J.S. (1989). The organizational culture perspective, Pacific Grove, Calif: Brooks/Cole.
- [39] Porter, M. (1985). Competitive advantage: Creating and sustaining superior performance. New York: The Free Press.
- [40] Palmer, I. 1977. The New Rice in Indonesia. UNRISD, Geneva.
- [41] Peters, T. & Waterman, R. 1982, *In Search of Excellence*, Harper & Row, Sydney.
- [42] Pretty, J.N., 1995. Regenerating Agriculture: Policies and practice for Sustainability and self reliance. London: Earthscan publication Ltd, and Washington, DC: National Academy Press.
- [43] Prange, C. and Verdier, S. (2011). Dynamic capabilities, internationalization processes and performance, *Journal of World Business*, vol 46, no1, pp126-133.
- [44] Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, vol 88, pp 879-903.
- [45] Raduan, C.R, U, J, A, H & I, A.I., (2009). 'A Conceptual Framework of the Relationship between Organizational Resources, Capabilities, Systems, Competitive Advantage and Performance', *Research Journal of International Studies*, October, No. 12.
- [46] Rindova, V. P. and Kotha, S. (2001). Continuous "morphing": Competing through dynamic capabilities, form, and function, *The Academy of Management Journal*, vol 44, no 6, 1263- 1280.
- [47] Sawit, M.H., and I. Manwan. 1991. The Beginnings of the New Supra Insus Rice Intensification Programme: the Case of North East of West Java and South Sulawesi. *Bulletin of Indonesian Economic Studies*. Vol 27, no 1, pp 81-103.
- [48] Steenkamp, J.-B., (1991). The use of LISREL in validating marketing constructs. *International Journal of Research in Marketing* vol 8, pp 283-299
- [49] Shafman, M. P., & Dean, J. W. (1997). Flexibility in strategic decision making: Informational and ideological perspectives. *Journal of Management Studies*, vol 34, no 2, pp 191-217.
- [50] Teece, D., Pisano, G., Shuen, A., (1997). Dynamic capabilities and strategic management. *Strategic Management Journal* vol 18, pp 509-533.
- [51] Teece DJ. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, vol 28, pp 1319-1350.
- [52] Thompson, A. A., Strickland, A. J., Gamble, J. E. (2005). Crafting and executing strategy: The quest for competitive advantage: Concepts and cases (4th ed.). McGraw-Hill, Irwin.
- [53] Waal AA, Covert V (2007). 'The effect of performance management on the organizational results of a bank', *Int. J. Prod. Perform. Manage.*, vol 56, no 5/6, pp 397-416.
- [54] Waterman, R. 1982. *In Search of Excellence; Lessons From America's Best Run Companies*. Harper & Row, New York.
- [55] Wang, C. L., & Ahmed, P. K. (2007). Dynamic capabilities: A review and research agenda. *International Journal of Management Reviews*, vol 9, no 1, pp 31-51.
- [56] Wilkins, A.L., & Ouchi, W.G. (1983). Efficient culture: Exploring the relationship between culture and organizational performance. *Administrative Science Quarterly*, vol 28, pp 468-481
- [57] Winarto, Y. 1993. Farmers' Agroecological Knowledge Construction: The Case of Integrated Pest Management among Rice Farmers on the North Coast of West Java. Rural People's Knowledge, Agricultural Research and Extension Practice. Research Series, Vol. I, No. 3, IIED, London.

- [58] Zollo, M., & Winter, S. G. (2002). Deliberate learning and the evolution of dynamic capabilities. *Organization Science*, vol 13, no 3, pp 339-358.
- [59] Zott, C. (2003). Dynamic capabilities and the emergence of intra industry differential firm performance: Insights from a simulation study, *Strategic Management Journal*, 24(2), 97-125.
- [60] http://www.depkop.go.id/index.php?option=com_phocadownload&view=section&id=16:data-koperasi&Itemid=93