

## Market Orientation, Service Innovation, and Performance

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### Abstract

The purpose of this study is to examine and explain the effect of: a) responsive customer orientation and responsive competitor orientation on incremental service innovation, b) proactive customer orientation and proactive competitor orientation on radical service innovation; c) responsive customer orientation, responsive competitor orientation, proactive customer orientation and proactive competitor orientation on performance. d) incremental service innovation and radical services innovation on performance. The data collection was done using a survey. The sample of this study was manager or director of rural credit bank with 128 questionnaires were distributed in rural credit banks in Central Java Province with 85.93% response rate. The data were analyzed using Generalized Structured Component Analysis (GSCA).

The results reveals that: a) responsive customer orientation and responsive competitor orientation have a positive and significant effect on incremental service innovation, b) proactive customer orientation and proactive competitor orientation have a positive and significant effect on radical service innovation; c) responsive customer orientation has a negative and non significant effect on performance, responsive competitor orientation has a positive and significant effect on performance, proactive customer and competitor orientation have non significant effect on performance; d) incremental service innovation and radical service innovation have a positive and significant effect on performance. Finally, the analysis of mediation effects shows that: incremental service innovation becomes a complete mediation relationship between responsive customer orientation and performance; incremental service innovation becomes a partial mediation relationship between responsive competitor orientation and performance; while the radical service innovation becomes a complete mediation relationship between proactive customer and competitor orientation on performance.

**Keywords:** responsive customer orientation, proactive customer orientation, responsive competitor orientation, proactive competitor orientation, incremental innovation, radical innovation, and performance.

### 1. Introduction.

Competitive advantage can be achieved when a firm successfully formulates and implements a strategy of value creation. If the company could implement these strategies whereas competitors could not adopt and imitate this strategy, the company will have a competitive advantage or sustainable competitive advantage (Bharadwaj et al., 1993; Hoffmann, 2000; and Hills et al., 2008). Therefore, a new research could be directed at market-driven and driving-market to influence market structure or behavior of market players (Jaworski et al., 2000). Market driven refers to learning and reaction to a market taken as a given. While driving markets is defined as influencing structure of the market and/or behavior of the market players in a direction that enhances the competitive position of the firm.

According to Narver et al., (2004), a responsive market orientation is discovering, understanding, and satisfying of expressed customer needs. In contrast, a proactive market orientation is discovering, understanding, and satisfying of latent customer needs. Although both definitions of market orientation from the early 1990s refer to the importance of understanding present and future target customers (Narver and Slater, 1990) and information gathering about present and future customer needs (Kohli and Jaworski 1990), the past measures of market orientation were focused predominantly on the responsive market orientation (Narver et al., 2004). Similarly, Jaworski et al., (2000) claimed that market orientation is narrowly interpreted as adopting current customer preferences and/or market structure (i.e., market-driven), rather than the firm proactively shape customers and/or market to enhance the competitive position (i.e., market driving). Hence, responsive market orientation is generally regarded as being market-driven, proactive market orientation is generally regarded as being driving-market.

Recent market orientation literature has stressed the importance of distinguishing between two complementary forms of market orientation; they are responsive and proactive market orientations. However, research exploring how companies learn about and act upon customers' needs has predominantly focused on processes for responding effectively to the expressions of customers' current needs. In recent years many researchers (i.e. Narver et al., 2004; Atuahene-Gima et al., 2005; Tsai et al., 2008; Li, et al., 2008; DeFoggi and Buck, 2009; Bodlaj, 2011; Voola and O'Cass, 2010; Blocker, et al., 2011; Lin and Chang 2011), have offered empirical

insight about the nature and the effects of understanding customers' latent and future needs proactively. Although Narver et al., (2004) specify proactive and responsive market orientations as two forms of market orientation, however, their measures of constructs deal merely with identifying and satisfying customers' needs and do not encompass others traditional dimensions of a market orientation (Blocker 2011). Nishikawa (2010) notices that the key factor of market orientation seems to be classified based on its subjects of learning (customers or competitors) and its purposes of learning (responsive market orientation or proactive market orientation). Thus, to have precise measurement of responsive and proactive market orientation, responsive competitor orientation and proactive competitor orientation dimensions should be added. The market orientation in this study is divided into four dimensions. they are proactive and responsive customer orientations, and also proactive and responsive competitor orientations.

Extensive literature has examined how market orientation influences the market success of organization. However, the impact of responsive and proactive market orientation on innovation has obtained attention from scholars (Han et al., 1998 and Kirca et al., 2005). To advance this important stream of research, I have developed a measure of proactive market orientation from a firm perspective. In this study, responsive customer orientation refers to a company's capability to respond effectively and to satisfy customers' expressed needs. Proactive customer orientation refers to a company's capability to continuously probe customers' latent needs and uncover future needs. Responsive competitor orientation refers to the ability to respond to competitors' actions. Responsive competitor orientation relates to analysis of the strengths and the weaknesses of current competitors. Proactive competitor orientation refers to the ability to anticipate competitive threats. Proactive competitor orientation is related to the analysis of competitor actions to be done.

Services have received relatively little coverage in research on innovation management. This is because there are assumptions made about the transferability of lessons originally learned in a manufacturing context, a justifiable position which neglects some important differences around service innovation (Meyer and DeTore, 1999; Bessant and Meyer, 2009). The future of innovation culture on corporate level is based on the provision of conducive environment, contribution of the individuals in the growth of innovative ideas, and self development, which gives birth to a set of innovations which are radical, incremental and learnt from the competitors through proper manner recognized in the corporate world (Qureshi et al., 2008). Innovation has pivotal role in gaining competitiveness for the organizations through unmatched link with the economic activities which reflect the financial as well as non financial performance of the organization (Denton, 1999 and Qureshi et al., 2008).

The objective of the present study is to measure market orientation to match the full scope of the concept of responsive and proactive market orientations by four components and to analyze the effects on service innovation and performance. This study provides new insights by dismantling market orientation and service innovation to more deeply understand the effects of four market orientation components on two types of service innovations. This study also evaluates how direct effect of four market orientation components on performance.

## **2. Literature Review, Hypothesis and Research Model**

### **2.1. Responsive and Proactive Market Orientation.**

Since the publication of Narver and Slater (2004) study, the dominant research stream that has addressed issues of customer latent and future needs is found in the market/customer orientation literature. Specifically, customer requires giving voice to customers' expressed needs-current needs that customers are aware of and actively solicit from providers. Notably, however, they do not address customers' latent needs, those needs that are potentially important but are difficult for customers to articulate (Slater and Narver 1998). This is the domain where a proactive customer orientation appears to play an influential role as shown through quantitative studies exploring new product success (e.g., Atuahene Gima et al., 2005; Narver et al., 2004; Tsai et al., 2008; Li, et al., 2008; DeFoggi, 2009; Bodlaj, 2011; Voola and O'Cass, 2010; Blocker, et al., 2011; Lin and Chang 2011). Zeithaml et al., (2006) suggest that what managers need are "forward-looking metrics" that capture indications of the way customers see the firm anticipating their "alternative futures". Drucker proposes creating a customer as the primary objective of business, not just serving the customer. This distinction is critical because the concept of market orientation has been criticized as being reactive and narrowly focused on existing customers (Atuahene-Gima et al., 2005 ; Narver et al., 2004).

Narver et al., (2004) specify proactive and responsive market orientations as two forms of market orientation. However, the constructs they measured deal only with identifying and satisfying customers' needs and do not encompass other traditional dimensions of a market orientation (Blocker, et al., 2011). Nishikawa (2010) notices that the key factor of market orientation seems to be classified based on its subject of learning (customers or competitors) and its purpose of learning (responsive market orientation or proactive market orientation). Thus to be more precise, measurements of responsive and proactive market orientation should be added with dimensions of responsive competitor and proactive competitor orientations.

Market oriented business are characterized intelligence generation about the expressed and latent needs and the

capabilities and strategies of their competitors. Intelligence can be viewed along a continuum from current to anticipate (Slater and Narver, 1998 and Narver et al., 2004). In this study responsive customer orientation refers to a provider's capability to respond effectively to satisfy customers' expressed needs. Expressed needs are defined as the needs of a customer of which the customer is aware and, therefore, can express. In contrast a proactive customer orientation refers to discovering, understanding, and satisfying latent customer needs. Latent needs are defined as needs of which the customer is unaware. Latent needs are no less "real" than expressed needs, but they are not in the consciousness of the customer (Narver et al., 2004). Hence a proactive customer orientation is defined as the "capability to continuously probe into customers' latent needs and uncover future needs" (Blocker et al., 2011, Herhausen 2011).

Responsive competitor orientation refers to the ability to respond to competitors' actions. Responsive competitor orientation is related to the analysis of the strengths and weaknesses of current competitors. In contrast a proactive competitor orientation refers to the ability to anticipate competitive threats. Proactive competitor orientation is related to the analysis of competitor actions to be done. Companies with "proactive competitor orientation" is not just trying to analyze the strengths and weaknesses of current competitors, but trying to anticipate the current competitors and potential competitors action to be done.

## **2.2. Service Innovation.**

The importance of innovation processes, widely recognized on both the empirical and theoretical levels, and the increasingly prominent role being played by service activities in productive systems have combined to make innovation in the service sector and become an issue of great importance. The construction of a general description of innovation is essential for an understanding of what the notion of innovation might encompass, in both services and manufacturing industry, and the basic forms it might take. The future of culture of innovation on corporate level is based on the provision of conducive environment, contribution of the individuals in the growth of innovative ideas and self development which gives birth to a set of innovations which are radical, incremental and learnt from the competitors through proper manner recognized in the corporate world (Qureshi 2008). We differentiated service innovation into incremental and radical innovation.

Incremental service innovations (exploitative innovations) are designed to meet the needs of existing customers or markets and to broaden existing knowledge and skills, to improve established designs, to expand existing products and services, and to increase the efficiency of existing distribution channels (Jansen et al., 2006; Li et al., 2008). Incremental service innovation is related to customer-led strategies that focus on manifest needs (Connor, 1999; Slater and Narver, 1999) and is posited to be the most common form of innovation (Bell et al., 2002; Slater and Narver, 1998,1999). Incremental service innovation tends to limit the range of potential service innovation, because it relies on customers' current view of the service market (Becheikh et al., 2006).

Radical service innovation is defined as fundamental changes in new services that represent revolutionary changes in service benefits (Berry et al., 2006; Hertog, 2000; Nijssen et al., 2005; Cheng and Krumwiede 2012). Radical service innovation creates brand new values through innovative concepts. Radical service innovations (exploratory service innovations) are designed to meet the needs of emerging customers and markets, and offer new designs, create new markets, or develop new channels of distribution (Jansen et al., 2006). In other words, radical service innovation may be described as the presence of search, variation, experimentation, fl2012). Ra, and risk-taking.

## **2.3. Business Performance.**

Business performance measurement is currently receiving very active investigation from both practitioners and academics, to the extent that new reports and articles on the topic have been appearing at a rate of one every five hours of every working day since 1994 (Pont and Shaw, 2003). Firm performance is a relevant construct in strategic management research and frequently used as a dependent variable. Despite this relevancy, there is hardly a consensus about its definition, dimensionality and measurement, that limits advances in research and understanding of the concept.

Concepts of business performance are generally centered on either efficiency or effectiveness. Since business enterprises must eventually be profitable to survive, financial efficiency in some form (e.g., gross margins, net margins, ROI, relative profitability, etc. is typically used as an ultimate outcome when performance is included in research. It is one of the most commonly used definitions of business performance in strategy research (Venkatraman and Ramanujam, 1986 and Yau et al., 2007) in particular utilized self-reports on financial and non-financial measures. The financial measures focused on overall profit level, profit margin, and return on investment among the financial measures. The non-financial measures related to customer and employee satisfaction.

Usually researchers distinguish subjective and objective measures (Brush & Vanderwerf 1992). Objective measures usually are market-based indicators, accounting-based measures, revenues, ROI and profit as well as growth measures, considering employee and sales growth, and survival (Cooper, 1993). Subjective measures can be described as perceptual in nature (Brush & Vanderwerf 1992) and refer to subjective assessments of performance dependent upon expectations manager (Cooper 1993), thus the level of the assessment of

performance in comparison with competitors. In this research, four concepts are employed to tap both the efficiency and effectiveness aspects of rural credit bank performance.

#### **2.4. Market Orientation and Service Innovation.**

Market-oriented represents a long-term commitment to understanding customer' expressed and latent needs and to developing innovative solutions that produce superior customer value (Slater and Narver, 1998). Responsive market orientation referred to as "customer led" (Slater and Narver, 1998) and "customer compelled" (Day, 1999) in which a business attempts to discover, to understand, and to satisfy the expressed needs of customers. Responsive Market Orientation refers to a set of skills and procedures to generate, disseminate, and use market intelligence pertaining to current customers and their expressed needs (Atuahene-Gima et al., 2005; Narver et al., 2004). A business adopting responsive market orientation may focus on appreciating the articulated needs of the customers in their served segments or markets, and then continually improve or upgrade the inherent product and/or service served by them through innovation (Li et al., 2008). Focusing on future customer needs may also alert the firm to new market and technology developments and increase its abilities to integrate developments into product innovation (Zhang and Duan, 2010). The responsive market-oriented behaviors are characterized by proximity, refinement, efficiency, and implementation that reflect exploitation (Tsai et al., 2008). Experience with skills and procedures to understand and satisfy the expressed needs of current customers lead to an enhanced absorptive capacity and increased competence with these skills and procedures. Greater competence with skills and procedures for current customers and their expressed needs will increase incremental innovations. Narver et al., (2004) suggest that only proactive MO is positively related to new product success. Responsive market orientation may generate incremental innovations than proactive market orientation (Narver et al., 2004; Mohr et al., 2010). In other words, this study supposes that a responsive market orientation (responsive customer and competitor orientation) is positively associated with incremental innovations as the result of the context of responsive market orientation related to customer expressed needs and competitor threats. A firm with a responsive market orientation focuses on a well-defined customer segmentation and markets that are well suited for incremental innovations. Based on the support and discussion above for the roles of responsive market orientation for creating innovation in customer and competitor relationships, we hypothesize:

*H1: Responsive customer orientation has a positive linear effect on incremental innovation.*

*H2: Responsive competitor orientation has a positive linear effect on incremental innovation.*

In the other hand, businesses that gather anticipatory intelligence have a proactive market orientation. Anticipatory customer intelligence is concerned with customers' latent and future needs that enable the firm to proactively pursue market opportunities that are not evident to competitors. Anticipatory competitor intelligence is concerned with competitor' strategy and potential competitors. Latent needs are real needs that are not yet in the customers' awareness. If these needs are not satisfied by a provider, there is no customer demand or response. An extreme type of proactive market orientation is known as market driving in which a firm actively seeks to (i) redefine the structure of the market and/or (ii) introduce an innovative value proposition that enables the firm to reduce, or even avoid, competition (Jaworski et al., 2000). Market-driving activities may be focused on many different stakeholders including customers and competitors. Proactive market-oriented activities are characterized by discovery, variation, innovation, and risk-taking which reflect exploration (Tsai et al., 2008). A proactive market orientation is more likely to lead to radical innovation (Mohr et al., 2010). Based on the support and discussion above for the roles of proactive customer and competitor orientation for creating innovation in market relationships, we hypothesize:

*H3: Proactive customer orientation has a positive linear effect on radical innovation.*

*H4: Proactive competitor orientation has a positive linear effect on radical innovation.*

#### **2.5. Market Orientation and Firm Performance.**

Market orientation provides a firm with market-sensing and customer-linking capabilities that lead to superior performance. In their study of causes and consequences of market orientation, Jaworski et al. (1993) found that market orientation has positive related with business performance. Market orientation is the organization culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers, and, thus, continuous superior performance for the business (Narver and Slater, 1990; Baker and Sinkula, 1999). The key premise of the resource based theory is that competitive advantage lies in the heterogeneous firm-specific capabilities held by firms (Montgomery and Wernerfelt, 1988). Capabilities are the most important source of an organization's success (Day, 1994). Responsive market orientation and proactive market orientation conceptualized as capabilities (Atuahene-Gima et al., 2005; Voola R and O'Cass R 2010). Market orientation has been linked to the organizational response to consumers' needs and wants, and has been argued to be a source of competitive advantage that influences firm performance (e.g. Jaworski and Kohli, 1993; Narver and Slater, 1990; Ruekert, 1992). Distinguishing between a responsive and proactive market orientation is therefore important for understanding the role of market orientation in implementing competitive strategies and its impact on firm performance (Voola and O'Cass, 2010). Business performance is directly associated with market orientation and innovation (Agarwal et al., 2003). While MO

and its (positive) effect on companies' performance have been the subject of numerous empirical studies in various cultures (Kirca et al., 2005), there are hardly any research results explicitly dealing with the RMO and PMO are related to performance (DeFoggi and Buck, 2009; Frank, 2010). Based on the support and discussion above for the roles of proactive customer and competitor orientation on firm performance, we hypothesize:

*H<sub>5</sub>: Responsive customer orientation has a positive linear effect on firm performance.*

*H<sub>6</sub>: Responsive competitor orientation has a positive linear effect on firm performance.*

*H<sub>7</sub>: Proactive customer orientation has a positive linear effect on firm performance.*

*H<sub>8</sub>: Proactive competitor orientation has a positive linear effect on firm performance.*

## 2.6. Service Innovation and Firm Performance.

Innovation is the source of potential competitiveness which safeguards service legacy and is utilized as a tool to go beyond the strength of the competitors (Hult et al., 2005). Innovation has pivotal role in gaining competitiveness for the organizations through unmatched link with the economic activities which reflect the financial as well as non financial performance of the organization (Denton, 1999). Innovation is considered as the process of commercializing and extracting value from ideas and converting them in to benefits in the real market. The companies today compete on the basis of new and improved added value products and services, processes and business methods (Qureshi et al., 2008). A general relationship between innovation and profitability is reported in the literature (Han, Kim, and Srivastava 1998; Gatignon and Xuereb 1997; Baker and Sinkula, 2009); Kouropalatis and Morgan, 2009).

The research differentiated service innovation into incremental and radical innovation. Incremental services innovation can be defined as efforts to improve, expand, improve the efficiency of existing services. Incremental or exploitation innovation is positively related to firm performance (Alpkan, 2012; Al-Qudah, 2012). Radical service innovation is defined as a fundamental change in the new service represents a revolutionary change over the service (Berry et al., 2006; Hertog, 2000; Nijssen et al., 2005). Radical innovations significantly affect the market performance and company's performance (Qureshi et al., 2008; Alpkan, 2012; Cromer et al., 2012; Al-Qudah, 2012). Based on the support and discussion above for the roles of incremental and radical service innovation on firm performance, we hypothesize:

*H<sub>9</sub>: Incremental service innovation has a positive linear effect on firm performance*

*H<sub>10</sub>: Radical service innovation has a positive linear effect on firm performance*

## 2.7. Conceptualization Model.

Conceptualization model shows the relationships between variables. Responsive customer orientation (RECUS), proactive customer orientation (PROCUS), responsive competitor orientation (RECOM), proactive competitor orientation (PROCOM) are considered as independent variable, whereas incremental service innovation (ISI), radical service innovation (RSI) and performance (PERFORM) are the dependent variables. The following framework shows a model describing the relationships between all variables.

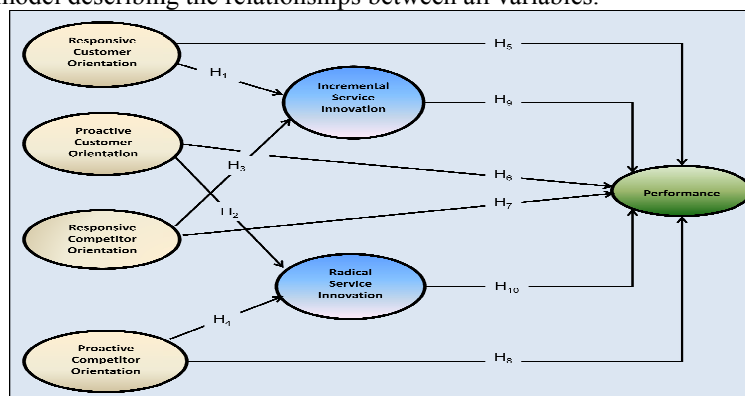


Figure 1. Research Framework

## 3. Method:

### 3.1. Purpose of the Research Study.

The purpose of this study is to find out the impact of responsive customer orientation, proactive customer orientation, responsive competitor orientation and proactive competitor orientation on service innovation and rural credit bank performance in Central Java.

### 3.2. Instrument and Sampling Unit.

A structured questionnaire was used for primary data collection. The targeted population is directors or managers of rural credit bank in Central Java Province, Indonesia. The data was collected using a survey which was carried out entirely in one stage (one short study) or in a cross-section study. The questionnaires were distributed to 128 directors or managers of rural credit bank in Central Java Province.

The instrument of this research is questionnaire with closed-ended statements, where the statements are made in such a way that respondents' answer is limited to several options. For the survey, the questionnaire was designed using 5 points of Likert scale; they are 5 for strongly agree, 4 for agree, 3 for neutral, 2 for disagree, and 1 for strongly disagree. The questionnaire were distributed by direct visits to the companies premises which is also important to explain the purpose of the study.

In this research, responsive customer orientation is defined as an orientation of getting market intelligence from company's existing and potential customer, summarizing and sharing with internal functions, then make some proper response in order to meet the customer needs. We measured responsive customer orientation with nine items through asking respondents to indicate the degree to which the search was based on customer's expressed needs. These measures were adapted from Karatepe, (2005). In contrast, proactive customer orientation is defined as an orientation that leading company to think, discover, understand, and meet the future needs of potential customers in order to let the customer understand the strategic orientation of marketing activities. We measured proactive customer orientation with six items by asking respondents to indicate the customer's latent needs. These measures were adapted from Rank, (2007).

Responsive competitor orientation refers to the ability to respond to competitors' actions. Responsive competitor orientation is related to the analysis of the strengths and weaknesses of current competitors. In this research, responsive competitor orientation is defined as an orientation of getting market intelligence from company's existing competitors, summarizing and sharing with internal functions, then making some proper response in order to their actions. We measured the degree of responsive market orientation with seven items through asking respondents to indicate their current competitors' strengths and weaknesses. These measures were adapted from Sorensen (2009) and Mohr et al., (2010). Proactive competitor orientation is defined as orientation of getting market intelligence to anticipate competitive threats. We measured proactive competitor orientation with seven items by asking respondents to indicate competitive threats. These measures were adapted from Sorensen (2009) and Mohr et al., (2010).

Incremental services innovation can be defined as rural credit bank efforts to improve and expand the efficiency of existing services. We measured incremental service innovations with three items by asking respondents the degree of their efforts to improve and expand the efficiency of existing services. These measures were adapted from Jansen et al., (2006) and Li et al., (2008). Radical service innovation is defined as effort to assess new opportunities for services, create new services, also to distribute and commercialize new services. We measured radical service innovation with seven items by asking respondents to indicate developing new products and services which were previously not provided by organizational units. These measures were adapted from Jansen et al., (2006) and Li et al., (2008).

Firm performance is defined as the end result of BPR activities which include the number of customers, total outstanding loans, the amount of savings, capital adequacy, the ability to pay the debt, the ability to control operating costs, and the ability to make a profit. Firm performance was measured using subjective assessments of their firm performance using a synthesis of items from previous scales and their firm market effectiveness had been achieved (Morgan et al., 2003). We measured firm performance with eight items by asking respondents the degree of their firm performance. These measures were adapted from Rahut et al., (2010) and Iqbal M.J., (2012).

### **3.3. Response Rate.**

All questionnaires distributed to directors or managers of rural credit bank in Central Java Province, Indonesia. The directors or managers were chosen as respondents since they have the knowledge, ability and accuracy of response to the statements in the questionnaire. The respondents were requested to answer all the questions to the best of their knowledge. Out of 128 questionnaires distributed, there were only 110 returned. Thus, the response rate is 85.34%. In addition, of 110 returned questionnaires, only 106 were useable and 4 were unuseable because of incomplete answer. After collecting data, the data was then coded and analyzed with GSCA software.

### **3.4. Data Analysis.**

The data was analyzed using Generalized Structured Component Analysis (GSCA). GSCA is a component-based SEM method which can be used for calculating scores and which is allowed for small samples (Hwang and Takane, 2004; Hwang et al., 2010). This method is chosen for the following considerations: (1) the model in a conceptual framework consists of hierarchical causal relations, that RECUS and RECOM influence ISI and then influence PERFORM, (2) PROCUS and PROCOM influence RSI and then influence PERFORM, (3) two mediating role of ISI and RSI towards performance; (4) GSCA is suitable for confirming the unidimensionality of various latent variable indicators, both reflexive and formative; (3) GSCA is a powerful method of analysis that does not require many assumptions and can be performed on a series of latent variables simultaneously, hence an efficient statistical tool; (4) Based on Monte Carlo simulation that SEM model with GSCA have very good performance to small size sample, especially to  $50 \leq N \leq 200$  or all sample size  $N \geq 50$ .

## **4. Result and Discussion.**

### **4.1. Validity and Reliability of Research Construct.**

Before data analysis, validity and reliability test of the data is very important. Factors were identified through

the thorough literature review and also factors were derived from famous model construct. Validity of responsive customer orientation, proactive customer orientation, responsive competitor orientation, proactive competitor orientation customer, incremental service innovation, radical service innovation and performance was very satisfactory. All items of latent variables are significant at .05 or CR>1.96. These result indicate that all of item indicate a good convergence validity. The value of AVE (Average Variance Extracted) for all latent variables is greater than .50. (Hwang et al., 2010), and therefore the latent variables have adequate discriminant validity. Therefore, the research instrument for measuring all latent variables has fulfilled the criteria for convergence validity and discriminant validity (Hwang et al., 2010).

The internal reliability of the items was verified by computing the Cronbach's alpha. Nunnally (1978) suggested that a minimum alpha of 0.6 sufficed for early stage of research. The Cronbach alpha estimated for responsive customer orientation was 0.892, proactive customer orientation was 0.811, responsive competitor orientation was 0.863, proactive competitor orientation customer was 0.832, incremental service innovation was 0.753, radical service innovation was 0.868, and performance was 0.889. As the Cronbach's alpha in this study were all much higher than 0.6, the constructs were therefore deemed to have adequate reliability.

#### 4.2. Fitness Test of the Model.

In GSCA, the fitness test of the model structurally measured by using FIT and AFIT that equivalent with R-square total on path analysis or on PLS. FIT value shows total variance from all variable that can be explained by structural model. The FIT value ranges from zero to one. The higher the FIT value (closer to one), the higher the total variance can be explained by the model. AFIT value equivalent with R-square adjusted on regression analysis and it can be used for model comparison. If AFIT value in one model is higher than others, it shows that the model is the best to use.

Table 1: Model Fit

Model Fit	
FIT	0.500
AFIT	0.490
GFI	0.985
SRMR	0.204
NPAR	106

Structural model evaluation was performed after the model relationship was built in accordance with the data observation and goodness-of-fit models overall. On Table 1 is evident from the values of FIT, AFIT, GFI (unweighted least squares) and SRMR (standardized root mean square residual). The result of the test for relation among variables is evident from the values of path coefficient and critical point (CR), which is significant at  $\alpha = .05$ , as shown in Table 2. The goodness of fit of the structural model and overall model shows that the model specified in this research can explain 49.00% of the variance of the corrected data (adjusted FIT). Also, the value of GFI = .985 and SRMR = .204 shows that the model has sufficient fit since recommended GFI is  $\geq .90$  and SRMR is considered to be better when it is closer to zero (Solimun, 2010; Heungsun Hwang et al., 2010).

#### 4.3. Hypotheses Testing.

##### 4.3.1. Effects of Responsive Customer Orientation and Responsive Competitor Orientation on Incremental Service Innovation.

H<sub>1</sub> and H<sub>3</sub>, claim that a firm's responsive customer orientation and responsive competitor orientation have significant positive effects on the incremental service innovation. Of the two regression weights between customer orientation and competitor orientation and the service innovation, all the regression weight is significant. Table 2 shows that responsive customer orientation (RECUS) and responsive competitor orientation (RECOM) is positively related to incremental service innovations (b:0.430, CR, 4.99 and b: 0.354, CR, 3.56). Research findings reinforce the theory of responsive market orientation. A responsive market orientation may generate incremental innovations (Atuahene-Gima, Slater, and Olson, 2005; Mohr et al., 2010). These findings affirm the assumption mentioned that responsive market-oriented has effect on incremental innovations (Li et al., 2008). These findings also indicate that responsive customer orientation has more positively impact on incremental service innovation than responsive competitor orientation.

Table 2: Path Coefficients.

Path	Path Coefficients				Interpretation
	Estimate	SE	CR	P-value	
RECUS-->ISI	0,430	0,086	4.99**	0.000	supported
PROCUS-->RSI	0,298	0,105	2.84**	0.005	supported
RECOM-->ISI	0,354	0,099	3.56**	0.001	supported
RECOM-->RSI	0,482	0,094	5.15**	0.000	supported
RECUS-->PERFORM	0,108	0,108	1.00	0.320	not supported
PROCUS-->PERFORM	-0,035	0,102	0.34	0.735	not supported
RECOM-->PERFORM	0,303	0,085	3.55**	0.001	supported
PROCOM-->PERFORM	0,105	0,104	1.01	0.315	not supported
ISI-->PERFORM	0,197	0,073	2.69**	0.008	supported
RSI-->PERFORM	0,250	0,112	2.24*	0.027	supported

\* = significant at .05 level.

\*\* = significant at .01 level.

#### 4.3.2. Effects of Proactive Customer Orientation and Proactive Competitor Orientation on Radical Service Innovation.

H<sub>2</sub> and H<sub>4</sub> claim that a firm's proactive customer orientation and proactive competitor orientation have significant positive effects on the radical service innovation. Table 2 shows that proactive customer orientation and proactive competitor orientation is positively related to radical service innovations (b: 0.298, CR, 2.84 and b: 0.482, CR, 5.15), in support of H<sub>2</sub> and H<sub>4</sub>. Research findings reinforce the theory of proactive market orientation. A proactive market orientation is more likely to lead to radical innovation (Atuahene-Gima, Slater, and Olson, 2005; Mohr et al., 2010). These findings affirm the assumption mentioned that proactive market orientation has impact on radical innovations (Li et al., 2008). These findings also indicate that proactive competitor orientation has more impact on radical innovations than proactive customer orientation.

#### 4.3.3. Effects of Responsive Customer Orientation, Proactive Customer Orientation, Responsive Competitor Orientation and Proactive Competitor Orientation on Performance.

H<sub>5</sub> to H<sub>8</sub>, claim that a firm's responsive customer orientation, proactive customer orientation, responsive competitor orientation and proactive competitor orientation have significant positive effects on firm performance. Of the four regression weights between responsive customer orientation, proactive customer orientation, responsive competitor orientation and proactive competitor orientation on firm performance, only the regression weight between responsive competitor orientation and firm performance is significant (b: 0.303, CR: 5.15), in support of H<sub>7</sub>, but out support of H<sub>5</sub>, H<sub>6</sub> and H<sub>8</sub>. It is emphasized that the path coefficient of proactive customer orientation on firm performance not only has an unexpected positive sign, but that the coefficient is negative (b: -0.035, CR, 0.34). These findings support Zhang and Duan (2010); Bodlaj (2010); Cheng and Krumwiede (2012) that responsive and proactive market orientation have no direct effect on firm performance.

#### 4.3.4. The Effect of Mediating Variables: Incremental Service Innovation and Radical Service Innovation.

Mediating variables of incremental and radical service innovation in Table 3 show that: responsive customer orientation affects incremental service innovation; responsive competitor orientation affects incremental service innovation, and incremental service innovation affects firm performance. Furthermore, responsive competitor orientation has direct significant effect on firm performance. in contrast, responsive customer orientation has no direct significant effect on firm performance. Therefore, incremental service innovation variables in research model is a complete mediation which mediates the correlation between responsive customer orientation and firm performance, and partial mediation which mediates the correlation between responsive competitor orientation and firm performance. These results are consistent with previous studies (Cheng and Krumwiede, 2012) which shows that incremental service innovation is the mediator between responsive market orientation on firm performance. These findings also extend previous research that innovation plays an important role in improving the firm' performance either directly or indirectly (Baker and Sinkula, 2009; Kouropalatis and Morgan, 2009; Alpkan, 2012).



Table 3: Mediation effect

Indirect effect	Direct effect of independent variable to dependent variable	Direct effect of independent variable to mediator variable	Direct effect of mediator variable to dependent variable	Nature of Mediation
RECUS→ISI→PERFORM	RECUS → PERFORM =0,108	RECUS→ISI =0,430**	ISI→PERFORM =0,197**	Complete mediation
PROCUS→RSI→PERFORM	PROCUS → PERFORM =-0,035	PROCUS→RSI =0,298**	RSI→PERFORM =0,250*	Complete mediation
RECOM→ISI→PERFORM	RECOM → PERFORM =0,303**	RECOM→ISI =0,354**	ISI→PERFORM =0,197**	Partial mediation
PROCOM→RSI→PERFORM	PROCOM → PERFORM =0,105	PROCOM→RSI =0,482**	RSI→PERFORM =0,250*	Complete mediation

\* = significant at .05 level

\*\* = significant at .01 level

Proactive customer and proactive competitor orientation effect on radical service innovation. And then, radical service innovation effect on firm' performance. Furthermore, proactive customer and proactive competitor orientations directly have significant effect on firm performance. Therefore, radical service innovation variable in research model is a complete mediation which mediates the correlation between proactive customer and proactive competitor orientations and firm performance. These results are consistent with previous studies (Cheng and Krumwiede, 2012) which shows that radical service innovation is the mediator between proactive market orientation and firm performance.

### 5. Theoretical and Managerial Implications

The theoretical contribution of this research is to develop the science of market orientation, especially responsive and proactive market orientations in the effort to implement incremental service innovation, radical service innovation, and performance. The contribution of this research is also to develop a conceptual and theoretical understanding on incremental and radical service innovation in the effort to improve performance, especially for rural credit bank. The result of this research brings additional evidence on responsive and proactive market orientations, which are now lacking in attention in responsive and proactive competitor orientations, since so far the concept of responsive and proactive market orientations is related only to customer orientation.

The practical implication of this study is provide insight and knowledge to rural credit bank managers, particularly rural bank in Central Java Province, Indonesia and generally in other developing countries, in implementing the concept of market orientation in relation to innovation and rural credit bank performance. The last is that directors and managers of rural credit bank as leaders in the future should drive the implementation of responsive customer, proactive customer, responsive competitor, and proactive competitor orientations to improve innovation and performance.

### 6. Conclusion, Limitation and Future Research

This research is experimental research on performance of rural credit bank. We analyzed the role of market orientation as an important variable for the successful implementation of innovation and the business performance of rural credit bank in Central Java Province, Indonesia. The regression results indicate that there are: a positive effect of responsive customer orientation and responsive competitor orientation on incremental service innovation; a positive effect of proactive customer orientation and proactive competitor orientation on radical service innovation; a positive effect of incremental and radical service innovation on performance. In addition, the outcome indicates that: incremental service innovation was full mediation of the correlation between responsive customer orientation and performance and partial mediation of the correlation between responsive competitor orientation and performance. While, radical service innovation was full mediation of the correlation between proactive customer and proactive competitor orientation and performance. Finally, overall results and study show that from last two decades, it is necessary for an organization to survive in the market and to get advantages that are more competitive with its visions of doing business through market orientation.

Given the wide scope of the discussion, this study has limitations in presenting the relationship of a cross-sectional analysis. The changing of business environment needs to be identified. Therefore, further research with longitudinal design is needed to re-examine whether the relationship between the variables analyzed in the study

had changed. Furthermore, the accuracy for the model is .490. This means that 49.00% of the variance in the variable of the variable of responsive customer orientation, proactive customer orientation, responsive competitor orientation, proactive competitor orientation, incremental service innovation, radical service innovation, and performance can be explained by the model, and the remaining 51.00% is explained by other variables. Therefore, further studies in the future can develop a research model by adding variables such as: antecedent variables of market orientation (i.e. organizational system, interdepartmental dynamics and top management), moderator variables (i.e. market turbulence, technology turbulence and intensity of competition).

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