MAIsCap-MARKETING ARCHITECTURAL ISOLATING CAPABILITY AS ANTECEDENTS FOR SUCCESS OF NEW PRODUCT DEVELOPMENT

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ABSTRACT

This study is a basic research for fulfilling research gap in New Product Development studies. Even though a new product development program is a high cost program, the level of success in entering the market is still low. This issue rises a question what should be considered in arranging ways to increase the success rate of new product development. This study proposes a concept of MAIsCAp-Marketing Architectural Isolating Capability, together with the concept of Competitive Experience Portfolio and Marketing Resource Flexibility postulated as hold a key role in enhancing the new product development Orgware quality as a prerequisite for enhancing new product marketing performance. Seven hypotheses were developed and tested using the data which were collected from 355 respondents serving as Product Development Manager and Marketing Manager in Indonesia. Data was analyzed using SEM AMOS 21 Statistical Software which supported 6 hypotheses. This study indicated that MAIsCap holds a strategic anchor position for strengthening NPD Orgware Quality in enhancing new product marketing performance.

Key words: MAIsCap, Competitive Experience Portfolio, Marketing Resource Flexibility, NPD Orgware Quality, New Product Marketing Performance.

MAISCap-MARKETING ARCHITECTURAL ISOLATING CAPABILITY SEBAGAI ANTESEDEN UNTUK KEBERHASILAN PENGEMBANGAN PRODUK BARU

ABSTRAK

Penelitian ini merupakan penelitian dasar untuk mengisi gap penelitian dalam studi Pengembangan Produk Baru. Meskipun program pengembangan produk baru merupakan program biaya tinggi, tingkat keberhasilan dalam memasuki pasar masih rendah. Hal ini menimbulkan pertanyaan apa yang harus dipertimbangkan untuk mempertinggi tingkat keberhasilan pengembangan produk baru. Penelitian ini mengusulkan sebuah konsep MAIsCAp-Marketing Architectural Isolating Capability, bersama-sama dengan konsep Competitive Experience Portfolio and Marketing Resource Flexibility sebagai memegang peran kunci dalam meningkatkan kualitas Orgware pengembangan produk baru sebagai prasyarat untuk meningkatkan kinerja pemasaran produk baru. Tujuh hipotesis dikembangkan dan diuji dengan menggunakan data yang dikumpulkan dari 355 responden yang terdiri dari Manajer Pengembangan Produk dan Manajer Pemasaran di Indonesia. Data dianalisis menggunakan software statitisk SEM AMOS 21 yang mendukung 6 hipotesis. Penelitian ini menunjukkan bahwa MAIsCap memegang posisi strategis untuk memperkuat Kualitas NPD Orgware dalam meningkatkan kinerja pemasaran produk baru.

Kata Kunci: MAIsCap, Competitive Experience Portfolio, Marketing Resource Flexibility, NPD Orgware Quality, New Product Marketing Performance.

INTRODUCTION

Previous studies concerning new product development have been shown a number of drivers for new product success entering into market such as risk reduction management system (Ishii et al. 2005), NPD process and flexible NPD process (Felekoglu et al. 2013), and product development capability (Banerjee and Soberman 2013). New product success was based on several factors such as product-firm compatibility and strategy deployed (Haverila 2012), new product innovativeness and the speed of product launched to market based on the ability of sensing capability (Zhang & Wu 2013), transmitting rich information and communication (Thomas 2013), learning (Li et al. 2010), high rate of innovative (Marques et al. 2013), scale and scope of outsourcing to innovation service providers (Lowman et al. 2012), supply chain configuration (Jafarian & Bashiri 2013), environment care (Tsai 2012).

Another studies indicated the high rate of failure of New Product success in entering the market is due to technology change and lacking of resources (Li et al 2006) and high risks and cost in the critical stage in the product development and early stage in entering the market (Bstieler 2012), advertising-finance factor (Haverila 2012), NPD Process and Preparation such as design parameters, process steps, components, disciplines, and departments involved (Jauregui-Becker & Wits, (2013). In other words the failure of introducing new product into the market place is due to the inability to deploy resources adequately. This is to say that so many factors should be considered in preparing ways for success of new product development and new product market entry as strategic antecedence. This antecedence should be well prepared and well managed if companies are aiming to succeed in marketing a new product.

In order to fulfill the research gap, the purpose of this study is to develop a model for enhancing the success of New Product Performance. To do so, this study proposes an antecedence factor named as Marketing Architectural Isolating Capability (MAIs-Cap) for empowering the process of New Product in entering into the a competitive market, together with the power of Competitive Experience Portfolio and Marketing Resource Flexibility.

THEORETICAL FRAMEWORK AND HYPOTHESIS

Epistemology of MAIsCap

As proved by several studies, prerequisite factors for success of new product in entering into market are resources, risk management, quality of process and preparation, ability of resource deployment (Li et al. 2006. Bstieler 2012, Haverila Jauregui-Becker & Wits 2013). In order to develop a bridge for our research gap, the researchers develop a concept of Marketing Architectural Isolating Capability (MAIs-Cap) as a specific competence to deploy marketing strategic process in a specific manner that isolated from ease of replication, hard to be imitated therefore hold potential for success.

The concept proposed is originally derived from various concepts in marketing and management in a two-fold synthesis process. The first fold is from the concept in marketing capital and marketing capability as studied by Griffith and Lusch (2007), Griffith et al. (2010) and Mariadoss et al. (2011) which demonstrated the key role of marketing capital and capability in creating value for business in term of marketing performance. This capability is strategic as it synergizes the whole marketing attributes in a manner that drive consumer choice of a product offered into the market place. Furthermore, the evidences-based literatures have identified that capability is one of the strategic asset firms employed for enhancing performance as in Ferdinand (2013). In this case, capability is to be understood as any capacity a firm holds to deploy resources such as information-based resources, tangible and intangible process as a basis for improving new product marketing performance. Study of Griffith et al. (2010) demonstrated that capabilities of marketing in coping with several capital such as human capital, relational capital, organizational capital, information capital are used to transform resources into valuable outcome in form of strategy. Process of transforming resources into several strategy and strategic maneuver needs a kind of architectural capability which empowering the creativity in development marketing strategy implementation (Slater et al. 2010). This creative orientation will lead company to create ways for enhancing creative marketing capabilities (Griffith et al. 2010, Theodosiou et al. 2012) and architectural capability (Doğan et al. 2013, Jacobs and Swink 2011, Park et al. 2012). As a specific competence in designing strategy to compete in the market, it is hard to be replicated or imitated

As an architecture to some extent, it concerns to unique, specific, creative and lateral design of action, architectural management and marketing as also appeared in the study of Park et al. (2012). This should be viewed as business process and strategy with architectural nuance such unique, creative and specific to be perceived its stakeholder. Most of elements of architectural marketing are considered to be derived from any related organization architecture that reflects amongst others: organizational learning capacity and innovation capabilities which uniquely designed.

Second fold of concept deployed in this study is strategic marketing concept in relation with sustainable competitive advantage. Firm has to create its own strategic platform as a strong basic stepping stone for entering the competition and winning the market based on the marketing capability they develop for create value and compete (Nosella and Petroni 2007, Worley et al. 2010). To do so, it has to develop and own a kind of specific resources and anchoring certain capabilities as a series of capacity to deploy resources (Ferdinand 2013) effectively to cope with the marketing dynamics in the market

place. As market is no immune from competitor, firm should manage its resources in a manner that has a potential for isolating competition or erecting any certain barrier for enter or imitate as known as isolating mechanism (Li and Tsai 2010).

Previous studies has already proposed and proved that if company succeeds in developing any kind of isolating mechanism, it will be by itself erect various competitive barrier (Li and Tsai 2010), therefore it is rational if company try to create a kind of isolating mechanism in its marketing strategy platform that will be hard to be replicated and imitated.

As demonstrated by study of (Li and Tsai 2010), isolating mechanism may come from several sources such as Innovation-based capability, Marketing capability, Buyer cost related mechanism, Customer relationship related mechanism. They are alone or in a combination are instrumental in forming strategic weapon for introducing product into market place and gaining superior performance and be named as Isolating Strategic capability. From this two-fold synthesis process, the researchers provide a novelty in a concept named as MAIsCap for Marketing Architectural Isolating Capability.

As company should have a kind of architectural capability in designing its marketing strategy platform in a manner that isolated from being replicated or imitated, the researchers propose a synthesis of those concepts as a concept of marketing architectural isolating capability as abbreviated as MAIsCap, as derived from a process as presented in the Figure 1

As depicted in Figure 1, MAIsCap - Marketing Architectural Isolates Capability and mirrors a set of marketing competencies reflecting company-specific unique marketing attributes embedded through the history of firm and cohesively integrated into the process of architecting competitive marketing maneuver. They are isolated from ease of replication, therefore, hard to be imitated. This capability holds potential for develop-

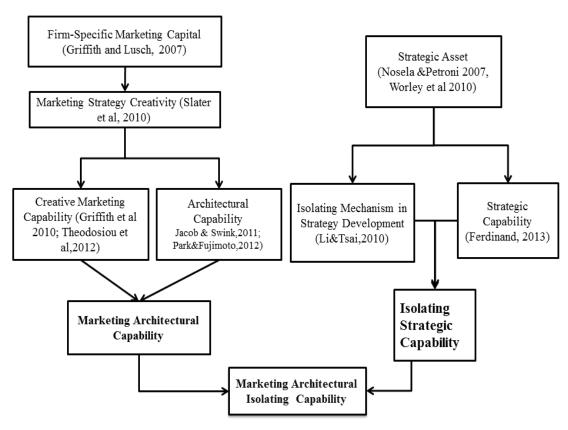


Figure 1
Sythesis Process of MAIsCap Concept

ing and empowering competitive power in market entry, especially in the early stage of product market entry phase.

MAIsCap then also may be understood as capability in integrative processes of marketing which is designed to win the competition. These architectural capabilities are concerned with collective marketing knowledge, skills and resources of the firm to market-related needs of the business, providing the opportunities for business to add value to its goods and services, adapting to market conditions, creating benefit of market opportunities and maneuvering over the competitive threats.

To implement these marketing architectural isolating capabilities, normative benchmarking theory assumed that managers could isolate distinct marketing capabilities which are considered valuable and empirically link these capabilities with superior business performance (Doğan et al. 2013, Jacobs and Swink 2011, Mariadoss et al. 2011) This isolating capability should comprise unique

marketing process elements that immune from imitation. These capabilities are postulated as a driver for New Product success in increasing marketing performance.

NPD Orgware Quality

New Product Development Orgware Quality was adopted here to address the issue of management infrastructure needed for facilitating ways for new product get into the market. If software generally known as skill, knowledge and capability in value creating process, while hardware is understood as a portfolio of physical facility that in this research's context prepared for NPD Process, then NPD Orgware refers to the capacity building around new product development backward and forward supporting team such as capacity of team in market sensing, market research, market test, market entry, product launch and commercial market penetration. This capacity building is directed to build strong foundation for new product ready get into the market.

Table 1 NPD Orgware

Backward Supporting Capacity Building Forward Supporting Capacity Building

- Market Sensing
- Market Research
- Product Screening
- Product design parameter
- Process Steps
- Team Involvement
- Product-Market Matching
- Business Model Canvas
- Segment Design
- Product Positioning Design
- Environmental Attributes
- Supply chain configuration
- Screening of innovativeness
- Risk Awareness

- Advertising
- Customer Value offering
- Product Positioning Implementation
- Product Launching
- Marketing Assessment
- Market Information Process
- Environmental Care
- Networking empowerment
- Risk Management
- Participative Market Entry Team

Study on New Product Development had a long historical tracks in marketing as well as studies relates with customer preferences by scholars as appeared in literatures related to capability in product design, new product market entry, new product management. These empower our notion of NPD Orgware Quality, such as study of Haverila (2013) on launching new product indicating success factor for NPD such as Personal selling differentiation initiatives, segmentation handling, positioning of new product in the mind of target customer, how marketing is organized, how marketing plan is specifically designed. This also relates to market research and marketing information system.

Yet, a study by Liang et al. (2013) indicates the organizational prerequisites such as Opportunity Identification, Preliminary Marketing & Technical Assessment, product strategy Development; market testing, quality of commercialization process as summarized from various resources presented in Table 1.

These factors are embedded to orgware of product development management process before preparing new product as backward supporting capacity building and after new product becoming ready to get into the market place as forward supporting capacity building in the organization.

In summary, this is to say that if those

factors are well managed, well prepared in a specific organizational setting and well implemented in the process of new product development and new product launching process, the company will achieve a high level of quality of NPD Orgware.

As recognized theoretically and practically in the cited academic works, new product development is not only a matter for production line who carefully produce product precisely as designed by new product team, but it is really a matter for marketing team how they prepare adequate conditions for introducing and familiarizing product to the target consumer. MAIsCap or Marketing Architectural Isolating Capability comprising all related integrative marketing competencies for architecting competitive marketing maneuver is needed in prepare ways for new product success through a well-developed Orgware around new product development initiatives. Therefore the following hypothesis is proposed:

H1: The higher the degree of MAIsCap the higher the quality of NDP Orgware.

Driver for MAIsCap: Competitive Experience Portfolio and Marketing Resource Flexibility

Competitive Experience Portfolio

Ancient teaching says that experience is a

best guru for further development. Many research on learning for failure experience demonstrated that who are learning intensively for every failure will find creative way for success. A study by Azevedo (2011) is even in different fields, which indicated clearly that experience is a very important factor in supporting success, the more experience collected and dispersed among member of organization, the more equal the capability developed and the more success could be achieved.

Furthermore, a study by Prahalad and Ramaswamy (2004) pinpointed that every effort of market and marketing encountering is a process for experience collection and development, they figure out a concept that the market is a forum for co-creation experience. For that reason, one should understand that every encountering in the market place, meeting with other market player, consumer, co-player in the market is exactly a process of experiencing and this collection of experiences is a key driver for building any kind of capability internally.

A long life concept of experience curve such as appeared in study of Toft-Kehler et al. (2013) proved that management experience and the effect of experience curve collected through the time company competing in the market place is a key determinant for success in enhancing business performance in almost every industry. Experiences which are collected through the age of a company embedded in the organization member which are hard to be imitated are the essence of competitive experience portfolio. In relation to new product development, this kind of experience is, as appeared in the study of Prahalad and Ramaswamy (2004), a driver for developing another intra-organizational capability for supporting the success of new product enter into the market place. Therefore the following hypothesis is proposed.

H2: The higher the degree of portfolio of competitive experience, the higher the degree of MAIsCap.

As described above, the notion of NPD Orgware Quality on launching new product

depends on the ability to selling differentiation, ability on management the segmentation and target market selection process till the clearly positioning process settled, product strategy development, market testing and the like such as appeared in Liang et al. (2013) also in Haverila (2013). This specific process is being possible due to the support of the collected and embedded experience within the organization especially the effect of experience curve, therefore the following hypothesis is proposed.

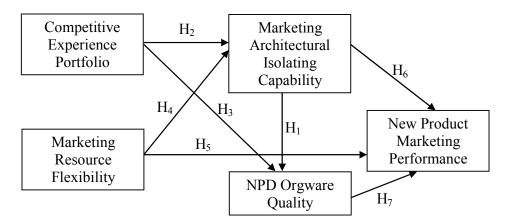
H3: The higher degree of portfolio of competitive experience, the higher the degree of NPD Orgware Quality.

Marketing Resource Flexibility

A study on marketing flexibility is a mainstream view in marketing theory related to the degree of flexibility in marketing resource allocation and resource adoption in facing the turbulent changes in the market place. Also, a study of Călin (2012) posited the flexibility in marketing and marketing resource is still very few while it is a necessary for marketing practices as the rapid changing in the market place taken place characterized by dynamism, unpredictability, intense competition and increased consumer power, evolving towards and increased fragmentation of targeted segments. As also appeared in the study of amongst other Combe and Greenley (2012) and Patel and Jayaram (2013) that strategy flexibility is implicitly comprises the flexibility in marketing instrument which is strategically important in building capability for making breakthrough in marketing strategy.

Flexibility of marketing resources is recognized in the literature as a strategic tool for winning the competition (Combe and Greenley 2012, Klingebiel and Rammer 2012) where company should have abilities to respond to various demands from the dynamic competitive market. To do so, firm should has flexibility in managing its marketing weapon in terms of flexibility in allocation and adoption of marketing resources such as marketing funds, allocation of promotion cost and promotion coverage, marketing

Figure 2
Empirical Research Model



human resource such as salesman, sales supervisor, allocation of promotional material are necessary to anchor the strengths of company marketing capability.

As reflected by our concept of MAIsCap that company should have a specific competence to deploy marketing process strategically that isolated from ease of replication and imitation in terms of acquisition of collective marketing knowledge, skills and capability together with creating benefit for marketing stakeholders, this will be rationally deployed and achieved when company maintain the flexibility in allocation and deployment of its marketing resources. In order to prove this relationship, a hypothesis is developed as follows.

H4: The higher the degree of Flexibility of Marketing Resources, the higher the degree of MAIsCap.

New Product Marketing Performance

Concept of New Product Marketing Performance was long historically developed indicated by factors of sales objectives, growth objectives, market share objectives, competitive position achieved by a new product (Molina-Castillo et al. 2011, Rodríguez-Pinto et al. 2012). As posited in the beginning of this research that in order to enhance the performance of new product entering into the competitive market place, we propose the flexibility of marketing resources, MAIsCap and NPD Orgware Quality for managing new

product enter into the market, therefore the following three hypotheses are proposed.

H5: The higher degree of Flexibility of Marketing Resources, the higher the degree of new product marketing performance.

H6: The higher degree of MAIsCap, the higher the degree of new product marketing performance.

H7: The higher degree of NPD Orgware Quality, the higher the degree of new product marketing performance.

To summarize the concepts which are elaborated in the literature review based on the strengths of our theoretical background and hypotheses proposed, the following empirical research model was proposed as presented in Figure 2.

As presented in Figure 2, the model demonstrates that in order to enhance new product marketing performance a company should create, develop and working with a qualified NPD Orgware as a kind of intrafirm capacity building specially designed for guarding the market entry of new developed product. To do so, a company should employ MAIsCAp as a strategic anchor for strengthening the quality of NPD Orgware through competitive marketing experience and marketing resource flexibility.

RESEARCH METHOD Variable Used in the Research

As has been described by Hair Jr. et al. (2006) that operated concept refers to key

Table	e 2
Operational	Variables

Variable	Core Meaning	Operational Measures
MAIsCap – Marketing Architectural Isolating Capability	MAIsCap is a specific competence to deploy marketing strategic process in a specific manner that isolated from ease of replication, hard to be imitated therefore hold potential for success.	 Degree of capability in preparing Integrated marketing activities. Uniqueness in tailoring marketing planning. Capability in delivering services efficiently
NPD Orgware Quality	NPD Orgware is the organizational capacity building around new product development team - backward and forward supporting team such as capacity of team in market sensing, market research, market test, market entry, product launch and commercial market penetration	 Ability to match new product developed to market needs. Existence and quality of premarketing test of new products. Quality of preparation ways for launching new products
Competitive Experience Portfolio	Competitive Experience Portfolio is series of collected experiences in doing business and encountering competition through the age of company and embedded in the organization member which are hard to be imitated	 Experience in encountering and winning competition. Experience by recognizing competitors weakness. Experience in employ a winning strategy in the competition.
Marketing Resource Flexibility	Marketing Resources Flexibility is defined as being flexible in marketing resource allocation and adoption as a contrary to rigid and tight allocation	 Degree of flexibility through continuous innovation. Degree of marketing resource flexibility in endeavor with turbulent times. Degree of overall flexibility marketing resources
New Product Marketing Performance	New Product Marketing Performance is defined as output and outcome of new product entry into the market place such as sales objectives, growth objectives and market share objectives.	 Degree of Expected Sales Score of Sales Growth Level of Firm market share above its major competitors

process in the measurement model involving determination of the measured variables that will represent a construct and the way in they will be measured or elements that give meaning to the underlined concept used in research and in testing the hypotheses.

In order to test the model and all proposed hypotheses, the following variables were used and data was collected using for those variables using the operational measures as exhibited in Table 2.

Sample and data Collection ProceduresData is collected by means of a mail survey,

using a highly structured questionnaire. The key informant in this study is the marketing and operational managers. These personnel were selected because they are responsible for implementing firms operational and marketing policy at the firm level as well as for guiding and directing the activities of employees toward accomplishing objectives. Therefore, they should be knowledgeable about the strategic orientations that their organization pursues, the marketing capabilities possessed.

Current sampling frame consisted of manufactures operating in Indonesia. To

enhance the participation of operational and marketing managers in this survey, site visiting and call back were conducted. A mailing package, including a cover letter, the questionnaire, and a pre-addressed postage free envelope was sent to the manufactures. The cover letter explained the objectives and importance of the study, promised strict confidentiality of responses, and emphasized the fact that the survey was fully supported by the upper management of each manufactures. 370 questionnaires were received and 355 completed and usable questionnaires.

Based on that rules, a total copies of printed questionnaire were distributed in Indonesia. This number was aimed for the main survey. For both main survey and pilot project, a convenience sampling method was used to select samples. The distribution of printed questionnaires was based on the accessibility criterion, hence, Province of DKI was chosen primarily. The distribution of internet-based questionnaires covered other provinces.

Current research measured all study constructs using multi-item scales that obtained from the literature. A first draft of the questionnaire was initially developed in English, then translated into Indonesia and back translated into English. This procedure guarantees that the English and the Indonesian versions of the questionnaire contain equivalent measures.

Furthermore, academic researchers served as expert judges to assess and help to construct the questionnaire's face validity. Finally, 30 doctorate students were asking for pre-tested of the questionnaire. No particular problems appeared regarding the clarity of questions or questionnaire's length

Table 2 presents a list of measurement items with the standardized estimates and critical ration for evaluating the construct validity of the concept used in this research based on AMOS output of confirmatory factor analysis (Arbuckle 2012).

DATA ANALYSIS AND DISCUSSION Data Screening

In social research, theoretically, it is recog-

nized that data is hard to be normally distributed (Hair et al. 2011), when this situation exists then a special procedure should be conducted in order to get a normalized distributed data. As suggested by (Tabachnick and Fidell 2012) for data with severe positive skewness should be transformed with 1/X, the researchers transformed our original data based on 1/X formula resulting a data series with normal distribution pattern. Based on this normalized data, further analysis was conducted. An indicator of NPD Orgware Quality was excluded from model due to the non-normality of data distribution. After re-running the AMOS Model, an acceptable goodness of fit indices is achieved as shown in validity measurement through confirmatory factor analysis as presented in Table 3.

Fit statistics was provided by indicator's weight from full structural model with lambda value – factor loading ≥ 0.50 with critical ratio ≥ 2.0 indicated good construct-validity.

Structural Model Analysis

Hypothesis testing was conducted using the tools of SEM-AMOS software in a full structural model as presented in Figure 3 and Table 4, by adoption of a two-step process of hypothesis testing as follows. At the first step the researchers are testing the goodnessof fit of the model using basic criteria in SEM such as chi-square significance level, GFI, AGFI, TLI, CFI, RMSEA (Arbuckle 2012) and got a result of $\chi 2 = 88.815$, significance level =.054; GFI = 0.966; AGFI = 0.949; CFI = 0.988; TLI = 0.984; RMSEA = 0.028 then could be concluded that our model was fitted by this sample data, then further step was conducted. The second steps is the hypothesis testing for causal relationships between variables using the criteria of CR-Critical ratio of equal or bigger than 2.0 (Arbuckle 2012). Observing the Critical Ratio of ≥ 2.0 , the researchers conclude that all hypotheses were supported except hypothesis on the causal effect of MAIsCap on New Product Marketing Performance as presented in the Table 4

Table 3			
Scale & Measurement – Construct Validity			

Indicator Variables	Std. Estimates	C.R.	P
Marketing Resource Flexibility:			
 Marketing resource's flexibility is as our firm continual innovation. 	.759	12.157	***
• Marketing resource's is worthwhile endeavor in turbulent times.	.885	13.232	***
 Giving score your marketing resource's flexibility 	.680	13.232 ^{a)}	***
Competitive Experience Portfolio:			
• Our firm always wins the competition- experiencing winning competition.	.604	8.698 ^{a)}	***
• We recognized our competitor's weakness.	.718	8.698	***
• We own strategy to win the competition.	.658	8.351	***
MAIsCap:			
• We have marketing Capability in preparing integrated marketing activities.	.528	7.434 ^{a)}	***
• We have Uniqueness in tailoring our marketing planning frequently.	.601	7.434	***
• We have specific capability in delivering our services efficiently	.829	7.744	***
Marketing Performance:			
• Our sales are as expected.	.771	14.047	***
 Score your firm sales growth. 	.836	14.047 ^{a)}	***
• Firm market share is always above major competitors	.751	14.168	***
NPD Orgware Quality:			
 Our firm is able to develop new products to meet market needs. 	.757	8.683	***
• Our firm usually conduct pre- marketing test of new products.	.660	8.683 ^{a)}	***

a) Calculation for lambda value was done twice, at the first run those indicators with a) are treated as constraints in CFA Full model, and then at the second run, they were adopted as free parameter while constraints are applied to another indicators arbitrary.

Test of Mediating Effect

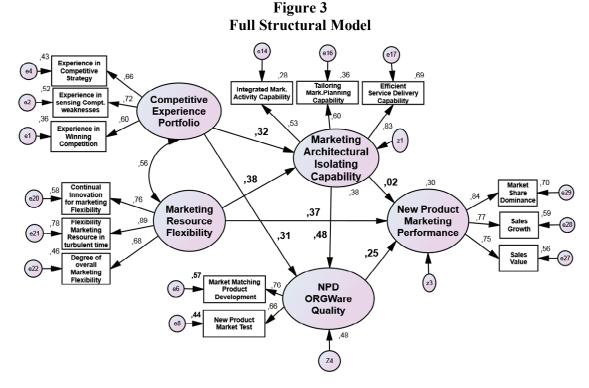
As indicated in our model, we propose NPD Orgware Quality as a bridge to connect MAIsCap to New Product Marketing Performance. Facilitated by the Sobel test statistics calculator available on line (Soper, D.S. 2014), a mediating test was done using the Sobel test statistic:

$$z = \frac{ab}{\sqrt{(b^2 SE_a^2) + (a^2 SE_b^2)}},$$
 (1)

where a is the regression coefficient for the relationship between the independent varia-

ble and the mediator, b is the regression coefficient for the relationship between the mediator and the dependent variable, SEa is the standard error of the relationship between the independent variable and the mediator, and SEb is the standard error of the relationship between the mediator variable and the dependent variable. Mediating test was done for MAIsCap→ NPD Orgware Quality→NP Marketing Performance, resulting a Z Value = 2.2117 (Significance=0.013) indicating the mediating role hold by NPD Orgware Quality.

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Chi-Square =88,815; Probability =,054; GFI =,966; AGFI =,949; TLI =,984; CFI =,988; RMSEA =,028

CONCLUSION, IMPLICATION, SUG-GESTION, AND LIMITATIONS

The main objective of the current research is develop a model for enhancing the success of new product development entering into the market place in order to fulfill the research gap on high failure rate of new product. To do so our hypotheses testing indicated that all hypotheses were supported except the hypothesis of the influence of MAIsCap to New Product Marketing Performance. Based on those results, several findings are elaborated as strategic pathways to enhance new product marketing performance as follows.

First strategic pathway is that marketing resource flexibility hold a potential to increase the degree of Marketing Architectural Isolating Capability which then increase the quality of NPD Orgware to enhance Marketing Performance. This is to say that if a company maintains a degree of flexibility in marketing resources in terms of continual innovation for maintaining its flexibility in managing the market entry process and flexibility in allocation and adoption of resources especially in the turbulent time, this

kind of flexibility will have a potential for increasing capability of company integrated marketing planning, implementation and better delivering services. This capability will create ways to facilitate effort in matching the product and market needs and in introducing and testing a product in the market place. This chain activity in turn enhances the new product marketing performance. The significant implication of this finding is that the acceptance of variables included in the hypothesis is strengthening the study of Călin (2012), Combe and Greenley (2012) and Patel and Jayaram (2013) that this kind of flexibility is important in building capability for digging and explore ways to enhance new product marketing performance.

This research finding also supported the notion of NPD Orgware Quality which reflecting a capability in initiating differentiation, segmentation, targeting and positioning of new product, marker research, marketing plan (Haverila 2013) for success launching a new product into the market place. This means that in order to achieve the success of new product development get into the market, company should specifically maintain a

Hypothesized Variables	Estimates	CR	Hypothesis Test
MAIsCap → NPD Orgware	0.48	4.894	Supported
Competitive Experience Portfolio → MAIsCap	0.32	3.341	Supported
Competitive Experience Portfolio → NPD Orgware	0.31	3.196	Supported
Marketing Resource Flexibility → MAIsCap	0.38	4.202	Supported
Marketing Resource Flexibility → New Product	0.37	4.800	Supported
Marketing Performance			11
MAIsCap → New Product Marketing Performance	0.02	0.214	Not Supported
NPD Orgware → New Product Marketing Performance	0.25	2.461	Supported

Tabel 4
Standardized Path Coefficient and t-Values for the Structural Model

strategic linkage in capacity building process between they who are in the backward supporting team and they are in the forward supporting team for new product

Second strategic pathway is competitive experience portfolio hold a potential in increasing the degree of Marketing Architectural Isolating Capability which then increase the quality of NPD Orgware for enhancing new product marketing performance. This finding do support our common logic of experience as a best guru for creating success and accumulate our understanding that a process of experience collection and development is strategic for building capability internally that every effort of market and marketing encountering is a process for experience collection and development, they figure out a concept that the market is a forum for co-creation experience, therefore one should understand that every encountering in the market place, meeting with other market player, consumer, co-player in the market is exactly a process of experiencing and this collection of experiences is a key driver for building any kind of capability internally (Prahalad and Ramaswamy 2004) and increase or prolong company's experience curve (Toft-Kehler et al. 2013), in turn effectively keep the role as a key determinant in enhancing marketing performance for new developed product.

Third strategic pathways is competitive experience portfolio has a potential for increasing NPD Orgware quality then enhancing the new product marketing performance.

This finding supported the study of Liang et al. (2013) and (Haverila (2013)) for the importance of the readiness of organization in new product management and empower our understanding that learning from failure or learning for past experience is collectively forming company member ability in dealing with organizational capacity building around new product development team –effective team building for new product success, building capacity of team for market sensing, market research, market test, market entry, product launch and success in maintaining any marketing penetration done by company

Another findings are Marketing resource flexibility and NPD Orgware Quality has a direct impact in enhancing marketing performance.

This study also indicated a mediating effect of NPD Orgware Quality to support MAIsCap in enhancing new product marketing performance. We adopted Sobel-test for mediating effect indicated that a Z-Value of 2.2117 indicating the importance of NPD Orgware in bridging the MAIsCap to enhance new product marketing performance while no direct effect or MAIsCap to new product marketing performance.

Based on the acceptance of several pathways for enhancing the success of new developed product entering in to the market place as depicted in our full model, this study provides certain implication for managers responsible for management the NPD Process and New Developed market entry process as in the following passages.

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First, the managers should convince themselves in advance that all related backward supporting capacity building has been well prepared and implemented.

Second, it monitors the preparation and implementation of forward supporting capacity building for ensuring the market entry process of the new developed products.

Third, as MAIsCap in an anchor for success of new product marketing, the company should from time to time search, develop, implement and maintain the uniqueness of company's marketing moves and list all possible MAIsCap elements or indicators to be included in company' strategies and tactics continually as every kind of strategy element is not immune from being imitated or replicated by competitors.

Fourth, the company should keep, record, maintain and disperse all experiences of the related person in charge of NPD and Marketing collected through the years as has been proved that whatever the experiences are, they are recognized as best guru for further development.

Fifth, flexibility is something important in managing business process, especially in the turbulent time. This study considers the importance of flexibility in resource allocation in terms of ensuring the success of marketing flexibility should be adopted and maintained since the process of idea generation and especially at the time for entering into the market place. The company should list all possibilities for flexible allocation of marketing resources, so easily adopted when needed.

Like other studies, this research is subject to several limitations. First, the data were collected from manufactures without categorizing whether they were large scale or small medium enterprises; this leads to ability to draw inferences which are limited and also difficult to generalize these findings.

Second, the coefficient of determination is relatively low for the target variables such as MAIsCap (0.38), ND Orgware Quality (0.48) and New Product Marketing Perfor-

mance (0.30) indicating the need for another more strategic factor to influence those target variables.

Third, one of our hypotheses is rejected, that is the ability of MAIsCap in influencing new product marketing performance. Therefore, several research venues are open. First, research venue is introducing new strategic variable to increase the power of MAIsCap, ND Orgware Quality and Marketing Performance, Second, a research venue is open to cope with the inability of MAIsCap in enhancing New Product Marketing Performance directly as not supported in this study such as introducing a new mediating variables for supporting MAIsCap in enhancing marketing performance of new developed product. Furthermore, a replication and enlargement of MAIsCap indicator is still needed to clarify the essence and application of this new concept.

REFERENCES

Arbuckle, JL 2012, IBM® SPSS® Amos™ User's Guide.

Azevedo, LND 2011, 'The Power of Experience: Implementing and Evaluating the Use of a Mobile Approach for Enhancing Students' Learning in Urban Design', CEBE Transactions 8(2): 18.

Banerjee, P 2003, 'Resources, capability and coordination: strategic management of information in Indian information sector firms', *International Journal of Information Management*, 23, 303-311.

Bstieler, L 2012, 'Perceived external uncertainty, new product development, and the timeliness of international product launch: A commentary essay', *Journal of Business Research*, 65(9), 1346–1348.

Călin, G 2012, 'Strategies for Increasing Marketing Flexibility: An Application of the Service Dominant Logic', *MB School*, Montpellier Business School.

Combe, IA and GE Greenley 2012, 'Capabilities for strategic Flexibility: a Cognitive Content Framework', *Working Paper*.

- Doğan, H Nebioglu, O Aydin, O & Dogan, I 2013, 'Architectural Innovations are Competitive Advantage for Hotels in Tourism Industry?: What Customers, Managers and Employees Think about it?' *Procedia Social and Behavioral Sciences*, 99: 701-710.
- Felekoglu, B Maier, AM & Moultrie, J 2013, 'Interactions in new product development: How the nature of the NPD process influences interaction between teams and management', *Journal of Engineering and Technology Management*, 30 (4), 384–401.
- Ferdinand, Augusty Tae, 2013, 'Company Specific Advantage and Sustainable Competitive Advantage', Available at SRRN:
 - http://ssrn.com/abstract=2340249 or http://dx.doi.org/10.2139/ssrn2340249
- Griffith, DA Yalcinkaya, G & Calantone, RJ 2010, 'Do marketing capabilities consistently mediate effects of firm intangible capital on performance across institutional environments?' *Journal of World Business*, 45(3): 217-227.
- Griffith, DA and Lusch, RF 2007, 'Getting marketers to invest in firm-specific capital', *Journal of Marketing*, Vol. 71, January, pp. 129-45.
- Hair, JF, Black, WC, Babin, BJ, Anderson, RE, & Tatham, RL 2006, *Multivariate Data Analysis* (6th ed.) Upper Saddle River, NJ.: Pearson Education Inc.
- Hair, JF, Ringle CM & Sarstedt, M 2011, 'PLS-SEM: Indeed a Silver Bullet.' The Journal of Marketing Theory and Practice 19(2): 139-152.
- Haverila, MJ 2012, 'Product-firm compatibility in new product development in technology companies', *The Journal of High Technology Management Research*, 23(2), 130–141.
- Haverila, MJ 2013, 'Marketing variables when launching high-technology products into international markets: An empirical study on Finnish technology firms.' *The Journal of High*

- *Technology Management Research* 24(1): 1-9.
- Ishii, K, Ichimura, T & Mihara, I 2005, 'Information behavior in the determination of functional specifications for new product development.' *International Journal of Production Economics*, 98 (2), 262–270, doi:10.1016/j.ijpe.2004.05.020.
- Jacobs, MA and M Swink, 2011, 'Product portfolio architectural complexity and operational performance: Incorporating the roles of learning and fixed assets', *Journal of Operations Management*, 29 (7-8): 677-691.
- Jafarian, M & Bashiri, M 2013, 'Supply chain dynamic configuration as a result of new product development', *Applied Mathematical Modelling*.
- Jauregui-Becker, JM, & Wits, WW 2013, 'An Information Model for Product Development: A Case Study at PHI-LIPS Shavers', *Procedia CIRP*, 9, 97–102.
- Klingebiel, R and C Rammer, 2012, 'Resource Allocation Flexibility for Innovation Performance: The Effects of Breadth, Uncertainty, and Selectiveness', *CfEE Research*, ZEW.
- Li, CR, Chu, CP & Lin, CJ 2010, 'The contingent value of exploratory and exploitative learning for new product development performance', *Industrial Marketing Management*, 39 (7), 1186–1197,
- doi:10.1016/j.indmarman.2010.02.002. Li, Y, Liu, Y, Zhao, Y 2006, 'The role of
- Li, Y, Liu, Y, Zhao, Y 2006, 'The role of market and entrepreneurship orientation and internal control in the new product development activities of Chinese firms', *Industrial Marketing Management*, 35 (3), 336–347.
- Li, YP and YY Tsai, 2010, 'The Study of Isolating Mechanism as Firm's Sustainable Competitive Advantage', *Manuscript*.
- Liang, B, Kale, SH & Cherian, J 2013, 'Is the future static or dynamic? The role of culture on escalation of commit-

- ment in new product development', *Industrial Marketing Management*.
- Lowman, M, Trott, P, Hoecht, a, & Sellam, Z 2012, 'Innovation risks of outsourcing in pharmaceutical new product development', *Technovation*, 32 (2), 99–109.
- Mariadoss, BJ, Tansuhaj, PS & Mouri, N 2011, 'Marketing capabilities and innovation-based strategies for environmental sustainability: An exploratory investigation of B2B firms', *Industrial Marketing Management*, 40, 1305-1318.
- Marques, P, Cunha, PF, Valente, F, & Leitão, A 2013, 'A Methodology for Product-service Systems Development', *Procedia CIRP*, 7, 371–376.
- Molina-Castillo, FJ, Jimenez-Jimenez, D & Munuera-Aleman, JL 2011, 'Product competence exploitation and exploration strategies: The impact on new product performance through quality and innovativeness', *Industrial Marketing Management*, 40 (7): 1172-1182.
- Nosella A & Petroni, G 2007, 'Multiple Network Leadership as a Strategic Asset: The Carlo Gavazzi Space Case', Long Range Planning, 40, 178-201.
- Park, Y, Fujimoto, T & Hong, P 2012, 'Product architecture, organizational capabilities and IT integration for competitive advantage', *International Journal of Information Management*, 32 (5): 479-488.
- Patel, PC and J Jayaram, 2013, 'The antecedents and consequences of product variety in new ventures: An empirical study', *Journal of Operations Management*, 32(1-2): 34-50.
- Prahalad, CK and V Ramaswamy 2004, 'Cocreation experiences: The next practice in value creation', *Journal of Interactive Marketing*, 18 (3): 5-14.
- Rodríguez-Pinto, J, Rodríguez Escudero, A.I & Gutierrez Cillian, J 2012, 'How market entry order mediates the influ-

- ence of firm resources on new product performance', *Journal of Engineering and Technology Management*, 29 (2): 241-264
- Slater, SF, Hult, GTM & Oslon, EM 2010, 'Factors influencing the relative importance of marketing strategy creativity and marketing strategy implementation effectiveness', *Industrial Marketing Management*, 39 (4): 551-559.
- Sumitro Banerjee & David A Soberman, 2013, 'Product development capability and marketing strategy for new durable products,' *ESMT Research Working Papers ESMT-13-01*, ESMT European School of Management and Technology.
- Soper, DS 2014, Sobel Test Calculator for the Significance of Mediation Software, Available from http://www.danielsoper.com/statcalc
- Tabachnick, BG and LS Fidell, 2012, *Using Multivariate Statistics*, New York, Pearson Publishers.
- Theodosiou, M, Kehadgia, J & Katsikea, E 2012, 'Strategic orientations, marketing capabilities and firm performance: An empirical investigation in the context of frontline managers in service organizations', *Industrial Marketing Management*, 41 (7): 1058-1070.
- Thomas, E 2013, 'Supplier integration in new product development: Computer mediated communication, knowledge exchange and buyer performance', *Industrial Marketing Management*, 42 (6), 890–899
- Toft-Kehler, R, Warrenberg, K & Kim, PH 2013, 'Practice makes perfect: Entrepreneurial-experience curves and venture performance', *Journal of Business Venturing*.
- Tsai, CC 2012, 'A research on selecting criteria for new green product development project: taking Taiwan consumer electronics products as an example', *Journal of Cleaner Production*, 25, 106–115.

- Worley, CG, Feyerherm, AE & Kundsen, D 2010, 'Building a collaboration capability for sustainability', *Organizational Dynamics*, 39, 325-334.
- Zhang, J, & Wu, W 2013, 'Social capital and new product development outcomes: The mediating role of sensing capability in Chinese high-tech firms', *Journal*

of World Business, 48(4), 539–548.

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