

SUBSIDIARY PERSPECTIVE OF COORDINATION MECHANISMS ON LOCALIZATION DECISIONS, WORKING ENVIRONMENT, MARKETING ENGAGEMENT AND NEW PRODUCT PERFORMANCE

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Abstract

New product launching (NPL) to the local market by subsidiary managers is a strategic activity, which requires organizational supports from MNC global network. The NPL activity is marked by high level of uncertainty, risk, and market failure. Thus, a headquarter needs to integrate the subsidiary NPL into the global strategy. At the same time, subsidiary managers need to have a certain level of autonomy to ensure that the launching program is adapted to the local specificities. These two pressures have forced the subsidiary managers to take up the roles of 'boundary spanners'. Good working environment between subsidiaries' managers and headquarter is believed to be the determinant factor for the new product performance. However, good working environment between headquarter and subsidiary is not automatically conditioned. The types of coordination developed by the headquarter influence the subsidiary managers and the headquarter working environment, and hence determine the new product success. This research emphasizes that negotiation coordination is more suitable than the hierarchical coordination when building good working environment during NPL process, determines the commercial performance of new products.

Keywords: boundary spanner, coordination mechanism, new product launching (NPL), new product performance, working environment

1. Introduction

A long research tradition on the factors that contribute to the new products success has started in the beginning of 60s. Studies by Burns and Stalker (1961), followed by Lawrence and Lorsch (1967) examined the effects of organizational structure on the innovation success. This domain of research is continued between the 70s and the beginning of 80s by predominant authors including Cooper (1979, 1984) and Calantone and Cooper (1981). Hereafter, various organizational factors have been analyzed during the process of new product development to commercialization. Those factors include the interdepartmental cooperation (Zirger & Maidique, 1990), the supports of top management (Montoya-Weiss & Calantone, 1994), and the communication and training (Moenaert & Caeldries, 1996).

Curiously, only a small number of studies have been made to the particular setting of internationalization. Several scholars have attempted to analyze NPL activities in the MNC (Multi National Company) operations, but limited to activities of new product development in R&D departments (e.g. Alphonso &

Ralph, 1991; McDonough *et al.*, 2001; Cheng & Bolon, 1993). According to another study, NPL is believed to be the competitive advantage source (Friar, 1995) in obtaining and maintaining favorable position in global market. Thus, it is important to comprehensively analyze NPL process in the MNC context.

The MNC is confronted with classical problems of integration and coordination around the dispersed activities globally (Stopford & Wells, 1972; Wilkins, 1974). From another point of view, subsidiaries need to be sufficiently differentiated to adapt the specific local factors, i.e. cultures, industries, government regulations, and consumers. Thus, NPL process to the local market in subsidiaries is characterized by pressures of integration and localization (Jarillo & Martinez, 1990; Prahalad & Doz, 1981; Bartlett & Ghosal, 1989; Roth & Morisson, 1990; Taggart, 1998). As subsidiaries require integration and localization aspects, this research considers that subsidiary managers must synchronize and harmonize the necessity of standardization with adaptation at the same time during NPL process.

Literatures show that the NPL to new and existing markets is risky and expensive (Calantone & Montoya-

Weiss, 1993; Schmidt & Calantone, 2002). According to Cooper (1986), only 1 out of 4 development projects is successfully launched in market. Meanwhile, Stevens and Burley (1997) stated that 1 out of 3,000 new product ideas is commercially success. The NPL risk resulted when high investment is confronted with high-complexity of relations within interdependent units of an organization, which increases uncertainties of positive market responses (Firmanzah, 2005). In MNC contexts, integration mechanism exercised to subsidiaries by headquarter is considered the fundamental organizational factor that influences the new products performance in local market. It is important to analyze the effects of the integration mechanism during NPL by subsidiaries. However, this article also attempts to answer the classical problem of the differentiation and integration during NPL by Lawrence and Lorsch (1967). Such problem is believed to be the important organizational factor for the new product success in subsidiaries.

The subsidiary NPL is complex and expensive. The complexity resulted from the diversity of phases starting from the development to commercialization activities (Biggadike, 1979; Hultink *et al.*, 1998; Guiltinan, 1999; di Benedetto, 1999; Hultink *et al.*, 2000) and the rich information provenance both from the headquarter and its local environments. The classical problem of horizontal interface (Urban & Hauser, 1980; Zirger & Maidique, 1990) highlights the challenges of vertical relation between headquarter and subsidiaries. Thus it contributes to the complexity dimension of NPL process. However, this process is known for its expensiveness. A wide array of activities - from market information gathering and treatment, laboratory activities, market testing, to commercialization campaigns - requires huge financial sources. Consequently, the headquarter endeavors to ensure that the NPL process is implemented according to the plan. Furthermore, headquarter should coordinate this activity in order to maintain the consistency and synchronization of its global strategy. The integration of the activities is designed to minimize failure risk of the new product in local market by transferring the knowledge and the experience from other countries to local subsidiary managers.

The subsidiary managers' role during NPL process will be analyzed through social-psychology literatures. According to this literature stream, no unit in the organization exists in isolation (Katz & Kahn, 1978; Kahn *et al.*, 1964). Each unit is linked to other units – both directly and indirectly – through several mechanisms, e.g. method of work, nature of the task, and the report mechanism. To achieve efficiency, an organization requires a cohesive structure in which sets of functions and roles are integrated into the overall organization strategies. By applying this perspective

into an MNC context, it emphasizes the importance of headquarter tasks in organizing its dispersed activities around the world. The global performance of MNC depends on the performance of each subsidiary. Consequently, headquarter is believed to be the integrator body in MNC networks through control and coordination instruments (Cray, 1984). From another perspective, subsidiary managers directly and indirectly respond on daily basis to the specificities of local environments. Therefore, subsidiaries require some degrees of autonomy to adapt and localize their operations to host-country. Accordingly, subsidiary managers receive two pressure factors, which resulted from the headquarter instruction and mandate as well as from the adaptation to local environment.

This situation brings the subsidiary managers to the interface between MNC's headquarter and local environments of the host countries. This interface is called boundary spanner (Au & Fukuda, 2002; Thomas, 1994). However, Organ (1971) argued that the boundary spanner has a linking pin role between the organization and its environment. Wilensky (1967) considered boundary spanner as *the man of contact*, who plays a mediator's role between the external demands for flexibility and internal requirements for efficiency. Aldrich and Herker (1977) underlined that the capacity of organization to adapt the environment constraints partly depends on the boundary spanner capacity to find a compromise between the organization strategy and the constraints of external environment. The boundary spanner primary activities are to build the perception of the external environment and increase the organization resources commitment to implement the decisions (Dollinger, 1984). Boundary spanner is also considered as the position to gather and process information from external environment, and transfer it internally (Keegan, 1974; Tushman & Scanlan, 1981a, 1981b).

In spite of the positive aspects of boundary spanner's position, a lot of studies illustrated the vulnerability of this position with the negative consequences on the work performance. Miles (1976) showed that the nature of the boundary spanner's role stimulates role conflict. In the same vein, Kahn *et al.*, (1964) underlined that the employees located between the enterprise and its environment are particularly subject to the role stress, role ambiguity, and role conflict. The role stress is strongly associated with negative consequences on the short-term and long-term performance of the employees (Stamper & Johlke, 2003)

This situation has driven to the analysis of working environment of boundary spanner (subsidiary managers) during NPL process. The working environment refers to how the individual in an organization interprets the working condition and interact each other concerning the required roles and tasks (Hellriegel & Slocum, 1974).

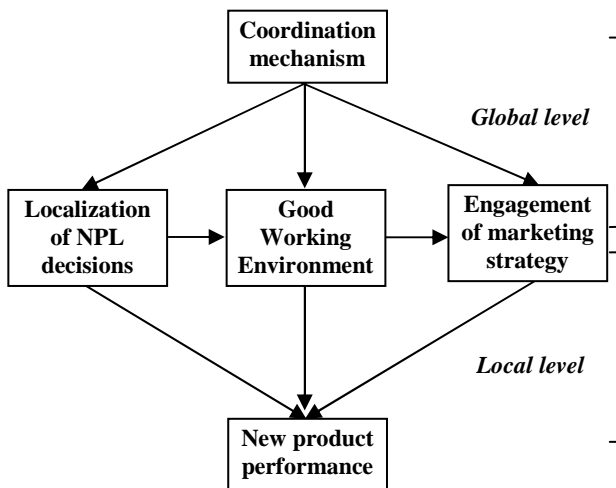


Figure 1. The General Model of Hypotheses

Previous research shows that the working environment is a structuralism and phenomenon of interaction. According to structuralism, the working environment is a function of structured pattern in an organization (Ashforth, 1985). The division of work, centralization or decentralization of the decisions, and formalization are the determinant factors for working environment. However, based on the interaction perspective, the working environment is the result of interaction patterns between units and actors in an organization (Schneider & Reichers, 1983). The integration mechanism developed by the headquarter covers two perspectives. The integration mechanism embeds types of task and functions of every unit and actor, and also defines the how and what of mechanism employed by headquarters to interconnect different units in MNC network. This situation is believed to influence the working environment between headquarter and subsidiary managers. If the headquarter imposes a high degree of integration through standardization, formalization, and mechanistic procedure, the working environment between headquarter and subsidiaries is very formal and procedural. On the other hand, if the headquarter applies a low degree of integration, based on interactions rather than bureaucratic procedures, the working environment between headquarter and its subsidiary managers is more informal and flexible (George & Bishop, 1971).

Several researches in the past showed positive relations between working environment and employee satisfaction (Churchill *et al.*, 1976) and motivation (Tyagi, 1982) to the tasks and work given. Yoon *et al.* (2001) confirmed that the internal working environment influences the relations between employees and consumers, which consequently determine the overall performance of the enterprise. How employees build and construct the relations with consumers determine the consumers' reaction of goods and services offered by this enterprise in the market.

The effects of working environment on the performance have become the major problem in the psychology research field. Several researches confirmed that good working environment contributes positively to the efficiency of work realization (Rogg *et al.*, 2001) and to the work performance and organization goals (Lyons & Ivancevich, 1974). In the subsidiary NPL process, good working environment between headquarter and subsidiary managers is considered to positively contribute to the way subsidiary managers carrying out the new product development process and commercialization. Such situation leads to the positive performance of the new product. On the other hand, a bad working environment creates uncomfortable and harmful situation, and most subsidiary managers' efforts are dedicated to solve the relational problems with headquarter. Consequently, less effort will be committed to implement the new product planning and strategy, thus negatively influence to the new product performance.

H1a: The good working environment between headquarter and subsidiary managers positively influences both commercial and technical new product performances

This research considers that the main objective of the presence of consumer goods' subsidiaries in a host country is to conquer the local market. Author like Behrman (1972) considered that one of the foreign direct investment presence objectives is to serve better in local market in order to win local competition. Therefore, the specificity of local environment has become the main concern of the subsidiary managers. The classical literature on the contingency perspective argues that the *fit* between organization and environment is an important indicator to survive and perform in a given market (Lawrence & Lorsch, 1967; Burns & Stalker, 1961; Bourgeois, 1985). Following this schema, subsidiaries need to adapt to the local features in order to achieve superior performance. Therefore, this research believes that the local character of decisions in each stage of subsidiary NPL process will contribute to the superior new product commercial performance.

H1b: The localization of the subsidiary NPL decisions positively influence the new product commercial performance

As the consumers of *commercial goods' companies* are individuals, the commercial performance is determined by the manners in which subsidiary managers influence the individual behaviors. Subsidiary managers should develop marketing strategies during NPL process. Mass marketing, organizational support, superior new products, and distribution channels are factors considered important in developing the marketing strategy.

Components including product, price, promotion, and publicity must be coordinated to reach geographically dispersed individual consumers. Thus, importance level of efforts and resources dedicated to the mass marketing allows the subsidiaries to better reach the individual consumers. The subsidiary NPL also needs the contribution and coordination from all departments within a subsidiary organization. Functions such as marketing, production, finance, human resources, and R&D should be harmonized during the process. Many researches in the past showed that superior product is an important element for new product success (Maidique & Ziger, 1984; Cooper & Kleinschmidt, 1987; Montoya-Weiss & Calantone, 1994). The last factor of marketing strategy, which is the distribution channel, is important for consumer goods companies as the success of new product highly depend on how to effectively bring closer the new product to individual consumer. These four factors positively determine the new product commercial performance.

H1c: The high level marketing strategy engagement positively influences the new product commercial performance

The working environment is considered to influence the strategic decision-making during NPL process. The working environment gives the context where strategies will be formulated (Daft, 1978) and setting in work-related realization (Miller, 1997). The working environment that is favorable and supportive to the strategic formulation process will enhance the quality of the decision strategic and its realization. On the other hand, the working environment that impedes the exchange of ideas and communications during strategic decision formulation will reduces the quality of strategic decision and its implementation. Therefore, favorable working environment, in which the strategies are elaborated and decided, is an important factor for engagement levels of marketing strategies.

H2a: Good working environment between headquarters and subsidiary managers during NPL process positively influences the degree of marketing strategies engagement

This research is implemented based on the perspective that the consumer goods' MNC manages a wide array of global products¹. Consequently, subsidiary managers also introduce and commercialize these products to local market. Global products need certain amounts of standardization and harmonization for global market. Thus, certain adaptation necessary to the local market

should follow the guidelines from headquarter. However, the role of headquarter is very important in developing global products' characteristics. Innovation and brand decisions for global product are important factors in ensuring the harmonization and consistency of global strategy development and implementation. Generally, the R&D unit in a consumer goods' MNC is centralized - in one location - under headquarter full control. Thus, the new product innovation during subsidiary NPL process is highly centralized in headquarters. The subsidiary managers could contribute to this process, although limited to the roles of local information gathering and processing. Brand construction is also considered as global initiatives. Publicity theme and channels are centralized. Limited amounts of necessary adaptation existed but they will not change the global strategy framework. For the above decisions, subsidiary managers need the roles of headquarter to organize and standardize global strategy to ensure harmonization and consistency. Therefore, the centralization of decisions will result in role clarity between headquarters and subsidiary managers. Conversely to the innovation and brand decisions, commercialization decision is highly correlated with the specificities of the host country. The price, launch time, distribution, and promotion are local-sensitive decisions. Subsidiary managers must respect local characteristic more than headquarter global guidelines. Thus, the localization of commercialization decision-making will enhance the role clarity between headquarters and subsidiary managers.

H2b: The localization of new product innovation and brand decision negatively influence the working environment between headquarter and subsidiary managers

H2c: The localization of new product commercialization decision positively influences the working environment between headquarter and subsidiary managers

Previous researches confirmed that the configuration of organizational structure plays an important role in forming and conditioning organizational working environment (George & Bishop, 1971; Schneider & Reichers, 1983; Rousseau, 1988; Patterson *et al.*, 1996). The integration mechanisms are employed by headquarters in order to harmonize subsidiary activities with global network, influence working environment between headquarter and subsidiary managers. The integration mechanism in subsidiary NPL process could consist of negotiation and hierarchical coordination. Negotiation coordination lies in the communications and feedback or adjustment from unforeseen and unexpected situations. This mechanism incites active contributions from each unit. The communication and information exchange between headquarter and

¹ Global new product is a new product resulted from market research and R&D conducted by headquarter and regional offices. The role of subsidiary is merely to introduce the new product to local market. Include in the paragraph

subsidiary managers are considered as means of auto-adjustment of different functions and roles involved in NPL process. Thus, the utilization of negotiation coordination enhances good working environment between headquarter and subsidiary managers.

On the other hand, the integration mechanism that applies hierarchical and authoritarian mechanisms to the relationship between headquarter and subsidiary negatively influences the working environment. The process of hierarchical coordination takes place based on the intervention and programming of headquarter during subsidiary NPL process. Under this mechanism, subsidiary managers are confronted with double pressure - often contradictory - of headquarter's orientation and intervention as well as local pressure. This double pressure reduces good working environment between headquarter and subsidiary managers.

H3a: The negotiation coordination positively influences headquarter and subsidiary managers working environment during NPL process

H3b: The hierarchical coordination negatively influences headquarter and subsidiary managers working environment during NPL process

The locus of NPL decision-making is influenced by the headquarter integration mechanism. If headquarter applies negotiation coordination, subsidiary managers will take more initiatives and participates in the decision-making process during NPL. This type of coordination allows the information exchange and discussions between headquarter and subsidiary managers. It enables the subsidiary managers to play important roles during NPL process problem solving as they understand the actual host country environments. Such knowledge is an important factor for launching decision-making and execution. Utilization of negotiation facilitates the subsidiary managers in conveying local information and specific conditions during the decision-making process with headquarter. Therefore, negotiation coordination tends to orient NPL decisions towards local characteristics more than global standardization.

On the contrary, hierarchical coordination prevents the adjustment and information exchange between headquarter and subsidiary managers. Under this mechanism, headquarter plays a major role in coordinating and integrating the dispersed activities of subsidiaries worldwide. Fixation and programming activities are often conducted by headquarter. Even though subsidiary managers have the opportunity to make certain program adjustment, they will not change the general program framework decided by headquarter. Subsidiary managers are more a passive rather than active institution, as it is headquarter that plans and

develops the program for harmonization in each phase of NPL process. Therefore, in this type of coordination, interest in global standardization is more powerful than local adaptation.

H3c: The negotiation coordination tends to orient subsidiary NPL towards localization rather than global standardization

H3d: The hierarchical coordination tends to orient the subsidiary NPL towards global standardization rather than localization

The negotiation coordination stresses the relational rather than intervention pattern. The subsidiary managers are granted autonomy to decide and communicate the strategy and action plan to bring new products into local market. The strategic implementation literatures confirmed that the incorporation of those whose involved in or affected by the implementation of decision increase the degree of acceptability of strategic decision (Miller, 1997). Such incorporation influences the motivation degree in strategic realization. Therefore, the negotiation coordination increases the level of marketing strategy engagement in subsidiaries. Contrarily, hierarchical coordination emphasizes the orientation and intervention of subsidiaries activities. Under this mechanism, subsidiary managers are not given space to take initiatives and present opinions during strategic decision-making and implementation. In other words, no close linkages exist between the decision that must be executed and those who will execute it, particularly if contradiction between what is thought and what must be done by subsidiary managers exists. Subsidiary managers will put into operation the NPL program as demanded by headquarter. This situation will decrease the subsidiary managers' commitment in achieving objectives of NPL program determined by headquarter. Therefore, utilization of hierarchical coordination will decrease subsidiary marketing strategy engagement during NPL process.

H3e: The negotiation coordination increases the degree of subsidiary managers' marketing strategy engagement

H3f: The hierarchical coordination decreases the degree of subsidiary managers' marketing strategy engagement

2. Methods

The questionnaire construction is processed based on the discriminate principle between success and failure of new products (Cooper, 1979). The respondents were asked to differentiate two products representing success and failure cases. Therefore, each question must be answered according to these different dimensions of

success and failure. Calantone and Cooper (1979) argued that this method allow analysis of responses by directly comparing factors contributing to the success or failure. This mechanism also facilitates the respondents in cognitively differentiating between the NPL experience contributing to success and failure in the past (the NPL realized within five years).

The development of subsidiaries is divided into the following two phases: (1) to select list of subsidiaries from the existing data base (kompas and icpcredit), and (2) to gather list of subsidiaries via internet site of each MNC. Finally, sample consists of 1,167 subsidiaries of consumer goods in 18 countries located in 2 regions, Asia and Latin America. The reason to focus on subsidiary consumer goods is that the frequency of NPL by consumer goods is more than that of industrial companies. Consumer goods companies have sufficient experience to launch new products in local market. The postal survey has been conducted twice to marketing or commercial directors of subsidiaries. Considering the diversity of subsidiaries locations as well as managers' nationality, questionnaires used English language. Such language is a standard international business language so that it could minimize the bias comprehension of different cultures and local social conception in different countries.

For the purpose of facilitating the questionnaire answering by subsidiary managers and saving time, a special web site is developed to facilitate the participants completing the questionnaires. Subsidiary managers were able to take part in this study by visiting www.firmanzah.bacabuku.net to fill out the questionnaire. Finally, some 69 subsidiaries agreed to participate in this study. About 55 respondents (79.7%) responded online and 14 (20.3%) by mail. As each subsidiary provided two cases (products), our data base constitutes 138 products, of which 50% is successful. The product became the level of analysis as all the organizational process is reflected by the success and failure of products in market. The low participation rate of subsidiaries was due to several factors, e.g. long question, information confidentiality, and language barrier.

Operational measures. To show the distinct variables in each concept, a principal components analysis (PCA) is mobilized to analyze these items (as the sample size was not sufficient for confirmatory factor analysis). The author used the oblimin rotation since moderated-size correlations is expected found among some factors. Pattern matrix of the five concepts was mapped onto the scale as expected, therefore providing evidence of factorial validity of measures.

To construct the integration form, the respondents were asked to think about their relationship with headquarter

and internal cross-functional coordination within subsidiaries using series of statements on a scale ranging from 1 (very low) to 5 (very high). The PCA shown in Table 1 lead into two coordination mechanisms, i.e. (1) negotiation and (2) hierarchical coordination. The negotiation coordination interpretation is based on the concept of coordination by communications and feedback of March and Simon (1958) and is corresponded to the construction of relational coordination of Gittel (2000). The communications and the feedback facilitate the interaction process enable adjustment activities of different units. This type of coordination facilitates the circulation of information. This type of coordination is also characterized by the continuity communication and relational dimension in organization (problem resolution, mutual respect, objectives, and knowledge sharing). In contrast, the hierarchical coordination closely relates to the concept of programming coordination of March and Simon (1958). This form of coordination stresses the aspects of controls and intervention of NPL. Headquarter decides the specialization of the activities of each subsidiary and synchronize it in the global network.

Locus of decision dimension is developed by asking questions on standardization to subsidiary managers – various adaptive of decisions ranging from 1 (highly following headquarter) to 5 (highly adapting local environment). The result of PCA is shown in Table 2. The locus of decision-making covers three types of subsidiary NPL decisions, i.e. (1) the decisions concerning new product innovation (2) the decisions correlating to brand identity, and (3) the decisions associated with commercialization. The innovation decision concerns the degree of innovation and driver of new product innovation. The brand identity decisions are related to the brand positioning and characteristics (logo, symbol, picture, and personality). Commercialization decisions concern the pricing, choice of distribution channels, and new product promotion.

The production working environment variable is developed by questioning the relations climate of headquarter and subsidiary managers, ranging from 1 (very poor) to 5 (excellent). This construction measures whether the actors have a clear vision of the activities required during NPL and whether they are under harmonious working climate. As shown from Table 3, PCA analysis provides two fundamental concepts, i.e. (1) role clarity and (2) functional conflict. The role clarity corresponds to the degree in which the individual comprehends and understands the clarity of activities required to achieve his/her tasks (Kelly & Hise, 1980.). The concept of role clarity is the inverse concept of role ambiguity, which is defined as the lack of clarity in definition, finality, and means to recognize the tasks

Table 1. Factor Loadings and Reliabilities of Coordination Mechanisms^a

ITEMS	Mean	s.d.	MSA	PCA - Oblimin Rotation	
				F2	F1
Vertical coordination with headquarter (HQ)	3.43	1.046	.693	.827	
The overall time to prepare commercial	3.18	.986	.655	.663	
Cross-functional cooperation in subsidiary	3.72	.974	.843	.812	
Coordination process in subsidiary	3.50	.976	.793	.699	
HQ standard guidelines	3.07	1.206	.785		.885
HQ intervention to marketing decisions	3.10	1.204	.820		.862
Interpretations				Negotiation Coordination	Hierarchical Coordination
Correlations			F1 F2		
				-.070	
Cronbach Alpha (α)				.750	.710
KMO			.674		

^aLoadings less than 0.35 are not shown

Table 2. Factor Loadings and Reliabilities of Localization of Decisions^a

ITEMS	Mean	s.d.	MSA	PCA - Oblimin Rotation		
				F1	F2	F3
Advertising idea	3.14	1.235	.860	.570		
Advertising media channel	3.55	1.127	.853	.739		
Retail pricing	3.46	1.172	.906	.784		
Distribution channel	3.57	1.189	.863	.790		
Promotion	3.65	1.125	.915	.769		
Launch time	3.57	1.087	.856	.765		
Target market	3.05	1.155	.906	.594		
Product innovativeness	1.80	1.122	.829		.780	
Product newness	1.98	1.012	.736		.871	
Product advantage	2.57	1.046	.857		.649	
Innovation driver	1.66	.978	.779		.713	
Product/brand name	1.63	1.159	.735			-.596
Product visual symbol & logo	1.61	1.063	.711			-.674
Advertising visual/image	3.08	1.351	.825			-.611
Interpretations				Commercialization	Product Innovation	Brand Identity
Correlations			F1 F2 F3			
				.270		
				-.220	-.190	
Cronbach Alpha (α)				.850	.800	.730
KMO			.830			

^aLoadings less than 0.35 are not shown

(King & King, 1990). The role ambiguity also illustrates the situation in which the actor or the individual who is unaware of required task must face multiple demands. The second dimension of working environment is the functional conflict defines the situation where different points of views inter exchange among organization units during the problem solving (Jehn, 1994). The functional conflict measures different levels of ideas and perspectives between headquarter and subsidiary

managers during NPL process. This type of conflict is closely associated with cognitive conflicts (Amason, 1996; Amason & Mooney, 1999) and task conflict (Janssen & Veenstra, 2000; Jehn & Mannix, 2001). This situation is believed to improve the decisions quality. On the other hand, the dysfunctional conflict provokes serious organizational problems because it incorporates the personal and emotional conflicts.

The construction of the marketing strategy variable is measured by questioning the quality of each item in the marketing strategy, ranging from 1 (strongly disagree) to 5 (strongly agree). The results of PCA as shown in Table 4 illustrate four factors, i.e. (1) mass marketing efforts, (2) new product superiority, (3) distribution channel engagement, and (4) organizational support.

The first and the third factors are correlated with marketing mix elements. However, the second and fourth are associated with the new product success factors of Cooper & Kleinschmidt (1987) and Montoya-Weiss & Calantone (1994). These factors are important during the NPL because they influence the manners on seeking ways to win competition in local market.

Table 3. Factor Loading and Reliabilities of Good Working Environment^a

ITEMS	Mean	s.d.	MSA	PCA - Oblimin Rotation	
				F2	F1
The clarity of HQ/regional roles/jobs	3.51	.983	.761	.717	
The clarity of subsidiary authorities	3.64	.887	.722	.737	
The clarity of rules, policies and procedures	3.62	.938	.847	.779	
The clarity of other department roles	3.31	.980	.856	.641	
Difficult to create consensus with HQ	3.23	1.034	.628	.732	
Difficult to create consensus in subsidiary	3.22	1.023	.698	.782	
My idea is different from HQ's	3.02	1.136	.652		.835
Contradiction between HQ and reality	3.07	1.008	.667		.817
My idea is different from other department's	2.92	1.074	.652		.769
Interpretations				Role Clarity	Functional Conflict
Correlations			F1		
			F2	.117	
Cronbach Alpha (α)				.830	.750
KMO			.700		

^a Loadings less than 0.35 are not shown

Table 4. Factor Loadings and Reliabilities of Marketing Strategy Engagement^a

ITEMS	Mean	s.d.	MSA	PCA- Oblimin Rotation			
				F1	F2	F3	F4
Large segments covered	3.41	1.271	.818	.799			
Huge advertising efforts	3.29	1.227	.887	.732			
Mass communications	3.55	1.190	.896	.619			
Diversified promotional	3.36	1.066	.904	.614			
All distribution channels	3.58	1.231	.804	.710			
Close with core product	3.58	1.100	.893	.578			
Product advantage	3.51	1.013	.852		.698		
Uniqueness of product	3.57	1.017	.901		.663		
Innovativeness	3.38	1.012	.842		.849		
Product quality	3.54	0.998	.916		.508		
Sales force	3.43	1.146	.834			.857	
Distributors	3.53	1.128	.870			.656	
Contribution of all dept.	3.79	1.203	.781				-.816
Support from HQ	3.65	1.145	.864				-.694
Interpretations				Mass Marketing	Product Superiority	Distribution	Organizational Support
Correlations			F1				
			F2	.287			
			F3	.285	.187		
			F4	-.277	-.260	-.200	
Cronbach Alpha (α)				.790	.800	.580	.660
KMO			.864				

^a Loadings less than 0.35 are not shown

The new product performance is built by questioning the degree of new product performance achievement compared to the respondents' initial expectation, ranging from 1 (far less) to 5 (far exceeded). The PCA shown in Table 5 distinguishes two types of new product performance, i.e. (1) commercial performance and (2) technical performance. Commercial performance refers to all market performances including consumers' satisfaction and acceptance, market share, sales volume, product revenue, and profitability. Technical performance refers to aspects of realization quality in each phase and stage during NPL and commercialization. Several authors, e.g. Hultink *et al.*, (1998), Guiltinan (1999), and di Benedetto (1999) argued that the coherence and constancy of new product development and commercialization is an important dimension for new product success. Therefore, the measurement of program achievement compared to initial planning is an important dimension for new product performance.

3. Results and Discussion

Descriptive statistics and zero order correlations are presented in Table 6 (more detailed results are available upon request). Although the correlations were generally consistent with our expectation, the direct relationship between commercial performance and coordination type were not statistically significant ($r = .11$ for hierarchical coordination; $r = -.139$ for negotiation coordination). On the contrary, zero order correlation also showed positive contribution of the coordination mechanisms to technical performance ($r = -.461$, $p < .01$; for hierarchical coordination; $r = .433$, $p < 0.01$ for negotiation coordination). From this result, hierarchichal coordination

has negative correlation with technical performance. On the contrary, negotiation coordination has positive correlation with technical performance.

Hypothesis tests were conducted using the structural equation modeling (AMOS 5). As noted earlier, it was our intention to obtain a comprehensive measure of an organization's subsidiary new product success. This type of analysis has the advantage over correcting unreliability of measures and also provides information about the unique paths between the constructs. The global model test provided a good fit to the data ($\chi^2 = 875.057$, $df = 826$, $p < .05$, CFI = .987, IFI = .987, RMSEA = .021). The relatively small size, multivariate non-normality, and non-linear interaction term of our samples may adversely affect the sample stability. In order to check the robustness of the findings, author re-assessed the hypothesized relations with Bootsrap Computation. The Bootstrap involves repeated re-estimation of a parameter using random samples with replacement from the original data. These analyzes allow the calculation of confidence interval on the estimated data. The Bootsrap analysis using AMOS provides the value of P (Bollen – Strip Bootstrap) for the model = .935. Considering the conventional significant indicator = .05, this model is accepted to test the hypotheses. In other words, the model fit to the data and globally robust to test each of hypothesized.

The tests of hypothesis I show the importance of working environment between headquarter and subsidiary managers as determinant factors for new product success. Meanwhile, the other factors including

Table 5. Factor Loadings and Reliabilities of New Product Performance^a

ITEMS	Mean	s.d.	MSA	ACP-Rotation Oblimin	
				F2	F1
Customer satisfaction	3.19	1.131	.919	.840	
Customer acceptance	3.14	1.078	.906	.794	
Profitability	3.08	1.159	.908	.855	
Margin realization	3.10	1.109	.914	.847	
Market share realization	3.17	1.243	.931	.903	
Sales volume realization	3.25	1.272	.928	.920	
Product revenue realization	3.01	1.156	.945	.874	
Launch time	3.00	.725	.803		.764
Launch stage or process	3.07	.785	.757		.819
Actual development cost	3.14	.812	.732		.724
Interpretations				Commercial Performance	Technical Performance
Correlations			F1		
			F2	.256	
Cronbach Alpha (α)				.940	.660
KMO			.910		

^a Loadings less than 0.35 are not shown

Table 6. Correlations of Major Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
Hierarchical coordination													
Negotiation coordination	-.070												
Commercialization decision	-.107	-.065											
Brand decision	.217*	.045	-.220*										
Innovation decision	-.487**	.437**	.270*	-.190*									
Role clarity	-.351**	.625**	.058	.031	.544**								
Functional conflict	-.455**	.121	-.004	-.323*	.456**	.117							
Organizational support	.176*	-.218*	.164	-.042	-.122	-.306**	-.260**						
New product superiority	-.025	.361**	-.087	-.069	.285**	.434**	.088	-.260**					
Mass marketing efforts	-.452**	.413**	.122	-.156	.453**	.446**	.390**	-.277**	.287**				
Distribution	-.122	.179*	.230*	.130	.311**	.379**	.135	-.200*	.187*	.285**			
Technical performance	-.461**	.433**	.058	-.156	.513**	.610**	.444**	-.480**	.435**	.579**	.339**		
Commercial performance	.011	-.139	.207*	.055	.074	.074	.014	-.250**	.067	.054	.307**	.256**	

^a n = 138
 * p < .05
 ** p < .01

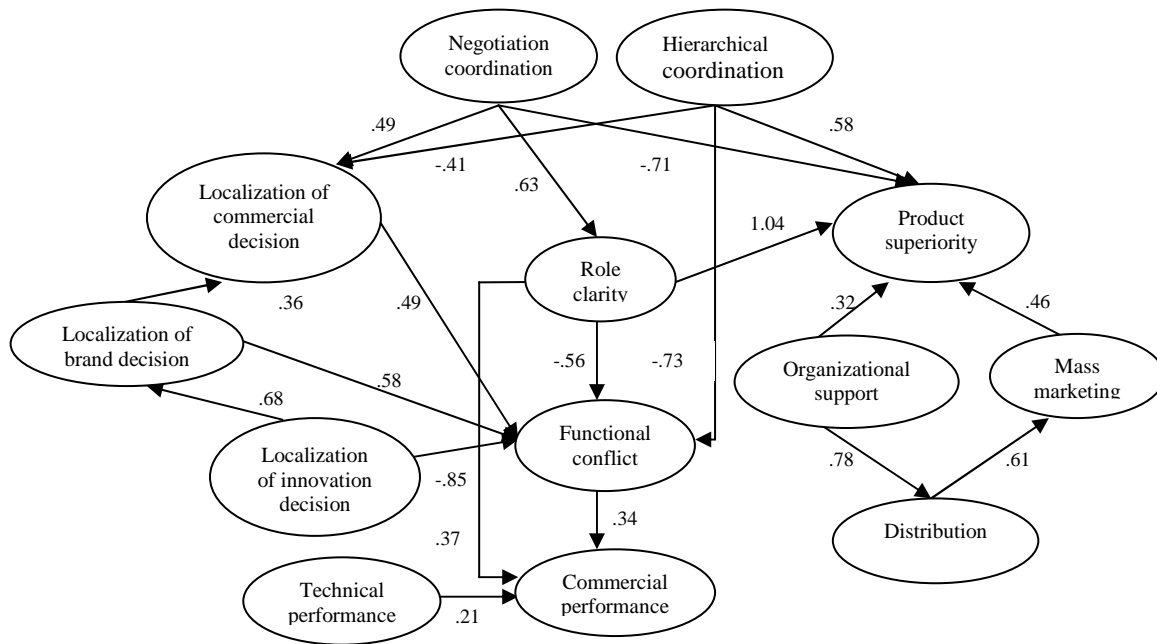


Figure 2. Structural Model Significant Standardized Parameter Estimates^a

the locus of decision and the marketing strategy do not statistically show significant relations in our model. Both elements of working environment positively influence the new product commercial performance ($\beta = .37, p < .05$ for role clarity; $\beta = .34, p < .05$). However, the technical performance also increases market performance ($\beta = .21, p < .05$). Curiously, when author separately tested marketing strategy and new product performance ($\chi^2 = 217.628, df = 187, p < .05, CFI = .981, IFI = .982, RMSEA = .038$), several elements

were statistically significant to new product commercial ($\beta = .42, p < .05$ for mass marketing; $\beta = .41, p < .05$; $\beta = .20, p < .05$ for technical performance). Similar result were also obtained when author partially tested the locus of decisions and commercial performance ($\chi^2 = 195.454, df = 165, p < .05, CFI = .983, IFI = .983, RMSEA = .037$). Two variables statistically significant, i.e. localization of commercial decisions ($\beta = .81, p < .05$) and localization of innovation decisions ($\beta = -.29, p < .05$). The model emphasizes the importance of

working environment dimension compared to other dimensions to determine subsidiary new product performance.

The second hypothesis illustrates the importance of locus of decisions on functional conflict between headquarter and subsidiary managers during NPL. However, different pattern of influence exists. Both localization of commercialization and brand identity decisions positively influence functional conflict ($\beta = .49, p < .05$; $\beta = .58, p < .05$). On the contrary, localization of innovation decision negatively influences functional conflict ($\beta = -.85, p < .05$). The third hypothesis reinforces the result in the past concerning the structural effect and interaction to the working environment (Ashforth, 1985; Schneider & Reichers, 1983). Negotiation coordination increases the role clarity during NPL ($\beta = .63, p < .05$), whilst hierarchical coordination prevents functional conflict between headquarter and subsidiary managers and during NPL ($\beta = -.73, p < .05$).

Coordination is an integration mechanism to manage headquarter and subsidiary activities in the value-chain process. The results of hypothesis testing show that negotiation coordination increases the subsidiary managers' role clarity. This integration mechanism allows clarification of subsidiary managers' roles through mutual adjustment with headquarter. In this context, subsidiary managers are not merely implementing bodies of global strategy. More than that, they make their own decisions and have ideas and interests concerning the required tasks. Thus, negotiation coordination is important, as it facilitates the adjustment and idea exchange, which enables the clear roles between headquarter and subsidiary managers. In contrast, hierarchical coordination impedes the discussions, information and idea exchange, and the problem-solving in NPL decision-making involving headquarter and subsidiaries. It reduces the idea and information exchange due to the subsidiaries activities programming during the process. This mode of coordination also leads passive behaviour of subsidiary managers because all have been decided by headquarter. The subsidiary managers' role is limited to an implementing body of strategic decision made by headquarter. Therefore, this type of coordination negatively influences the functional conflict during subsidiary NPL.

Another results of this research also show the importance of good working environment between headquarter and subsidiaries' managers during NPL process. The subsidiaries working environment determines the NPL success in local market. The hypothesis testing illustrates that working environment is more significant in influencing new product performance rather than the locus of decisions and marketing strategy. Two measures of working

environment have been analyzed, i.e. role clarity and functional conflict. The role clarity is vital for subsidiary managers because they need the clarities of roles, task, and job in interactions with headquarter. Many authors in the past showed that this situation valorize the implementation quality, motivation, and engagement of the actors (Miles & Petty, 1975; Teas *et al.*, 1979; Kelly & Hise, 1980). Our research also supports the findings in the past by indicating that the role clarity has a positive relation with new product commercial performance.

The findings of this research also support the decision-making process literatures. This article demonstrates that the functional conflict positively influences new product commercial performance. The decision quality requires various reflections, ideas, and information exchange of the different units in an organization (Hambrick & Mason, 1984) to analyze and more comprehensively develop NPL program. This situation could facilitate the commercialization, thus increase performance (Rogg *et al.*, 2001; Harborne & John, 2003). A good working climate facilitates the actors of an organization in developing mutual respect, information sharing, and inter-departmental cooperation.

4. Conclusion

The results of hypotheses testing reinforced the research findings in the past (e.g., Schneider and Reichers, 1983). According to them, working environment is influenced by organizational structure (formalization, specialization, centralization, etc) and the perception construction of the actors. In this context, the working environment has both an objective (the organization structure) and subjective aspects (the actors' perceptions). Subsidiary managers establish the sense and roles of signification based on the integration mode developed by headquarter. If the headquarter applies high levels of control and coordination, this would minimize the roles of subsidiary managers. If the headquarter allows more autonomy to subsidiaries, the managers will have more strategic roles during NPL process.

However, from the structural equations modeling, it is the working environment dimensions that have significant effect of new product performance. Two dimensions of working environment-role clarity and functional conflict- increase commercial performance of new product launched by subsidiary in the local market. It seems that good working environment facilitates good communication and information exchange among managers in the headquarter and subsidiary level. Such mechanism is believed as a main source of organizational effectiveness (Churchill *et al.*, 1976; Tyagi, 1982; Yoon *et al.* 2001). Thus it increases the quality of products and services produced by the firms.

This research has certain amount of limitations. Firstly, it did not take into considerations the distinction of subsidiaries. In reality, a subsidiary could establish a joint venture with local partner (Killing, 1983; Yan & Gray, 1994), and this structure can influence the decision configuration with parent companies. Subsidiary managers are not only dealing with headquarter but also for the interest of the local parent company. Not considering this situation will reduce pertinence of conclusion in the research. Secondly, it did not distinguish several types of new products. New product literatures distinguish several types of new products (Booz Allen Hamilton, 1982; Garcia & Calanton, 2002; Song & Montoya-Weiss, 1998; Kleinschmidt & Cooper, 1991). Therefore, different new product types need to be analyzed separately.

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