



Marketing's Influence Tactics in New Product Development: A Study of High Technology Firms in China

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It has been widely recognized that marketing's interaction with other functional departments (e.g., R&D) has significant impact on new product success. However, little research addresses how marketing actually behaves in the process of new product development (NPD). Drawing upon marketing, product innovation, and organizational buying literatures, this study contributes to the literature by delineating the types of influence tactics adopted by marketing and investigating how the use of these tactics affects marketing's influence on NPD decisions. Data on 128 new product projects from 114 high technology firms in China were collected from R&D perspective via on-site interviews. The findings indicate that, from the R&D's perspective, both marketing and R&D seem to have equivalent influence on new product decisions. In terms of usage frequency, the most frequently used influence tactics by marketing are persistent pressure, information exchange, and recommendation (i.e., use of rational logic). Coalition formation (e.g., seeking the support of peers) and upward appeal (i.e., seeking support from superiors) tactics are moderately used. The less frequently used tactics are legalistic plea (i.e., use of rules and regulations) and request. Regarding the effectiveness of influence tactics, the results indicate that persistent pressure, information exchange, and coalition formation lead to higher marketing influence in NPD decisions. However, the use of an upward appeal tactic leads to lower marketing influence. Recommendation, legalistic plea and request tactics are unrelated to marketing's influence. Our results also show that the efficacy of marketing's influence tactics is contingent upon the degree of functional interdependence in the NPD stages and the degree of interdepartmental conflict. Information exchange and coalition formation tactics are more effective at the initiation stage of the NPD process whereas legalistic plea and persistent pressure are more effective at the implementation stage. We further find that legalistic plea is more effective but coalition tactic is less effective when the degree of interdepartmental conflict is higher. Findings of this study provide managers responsible for ensuring market-oriented NPD with a better understanding of how the influence of marketing in the NPD process may be enhanced. Given our focus on Chinese firms, they also suggest that managers need to be sensitive to the cultural context of marketing influence. © 2000 Elsevier Science Inc.

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It has been widely recognized that marketing's interaction with other functional departments (e.g., R&D, engineering, finance) plays a critical role in the new product development (NPD) process [11,17,18,38,44]. Empirical evidence has consistently shown that marketing's early involvement, its information sharing and its relationship quality with R&D and others have significant impact on new product success [18,43,44].

Despite substantial prior research, our understanding of marketing's role in the NPD process and its impact on the outcomes is still limited. In particular, we have little knowledge about *how* marketing actually behaves in the NPD process to achieve influence on the outcomes. Prior research recognizes the differences in marketing and R&D personalities, their "thought worlds" and the prevalence of disharmony. Yet, it has not gone the next step to investigate how marketing achieves influence in such an environment. Much of the literature has been driven by the economically rational view (e.g., resource dependence or information processing perspective) of organizational behavior (see [17] for a review). This literature fails to

consider the inherently political nature of the NPD process in which competing functions struggle for control and dominance to shape the eventual outcomes [15]. The dominance of the rationalistic perspective of NPD has led Ruekert and Walker ([38], p. 1) to comment that the marketing literature "largely ignores or assumes away the political processes, jockeying for influence, conflicts, and communication difficulties" that arise in NPD. Similarly, Workman [48] criticizes that much effort in prior studies has been directed toward developing normative procedures for NPD rather than empirically investigating the actual behavior of marketing in the process. These criticisms are echoed by Brown and Eisenhardt [5] and Li and Atuahene-Gima [27], who argue that prior research has provided incomplete understanding of marketing's role in the NPD process because it downplays the fact that the process could be disorderly, disjointed, and fraught with politics.

Responding to this critique of the literature, a few studies of NPD and marketing's role from a political perspective have recently appeared. For example, Markham and his colleague [29,30] examine the influence of new product champions and the effect they have on projects and other people involved. Li and Atuahene-Gima [28] make a distinction between marketing's participation (i.e., its involvement in the NPD process) and influence (i.e., achieved impact on the behavior of team members) and investigate how marketing's influence mediates its participation in the NPD process. Although an important complement to the rationalistic perspective in understanding the role of marketing, we still have little knowledge of the tactics that marketing actually uses to achieve influence, and whether or not these tactics are effective in achieving influence in the NPD process.

The purpose of this study is to address some of the gaps identified in the literature. Drawing upon marketing, product innovation, and organizational buying literatures, this study contributes to the literature by delineating the types of influence tactics adopted by marketing and investigating how the use of these tactics affects its influence on NPD decisions. Another key contribution is that we explore the extent to which the NPD context factors affect the efficacy of marketing's influence tactics. This is consistent with the argument that influence is a context-specific process [9,16]. Hence, greater theoretical and managerial insights could be gained by examining contingencies under which influence tactics are more or less effective. Further, we examine these issues in a specific

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context of Chinese firms since prior research suggests that influence behavior in NPD is affected by national culture [22,28,39,40].

More specifically, using a sample of Chinese high technology firms, the current study is designed to provide preliminary answers to the following research questions:

- What is the degree of marketing's influence in the NPD process?
- What influence tactics are available to marketing in the NPD process?
- How frequently does marketing use these tactics to achieve influence on NPD decisions?
- How effective are the influence tactics in achieving influence?
- Is the effectiveness of marketing's influence tactics dependent on the NPD context?

The remainder of this article is organized as follows. The next section provides theoretical background of the study and portrays the research issues in detail. However, because of the embryonic stage of the literature and the dearth of empirical research it appears premature to develop formal hypotheses about the efficacy of marketing's influence tactics. Rather, we adopt an exploratory approach to examine how marketing achieves influence in the NPD process. This section is followed by a discussion of the research methodology and measures. Finally, we present the results and discuss the theoretical and managerial implications.

Theoretical Background: The Political Nature of NPD

Organizational decision-making is at its core a political process [7,15,35]. The political perspective assumes that organizational decision outcomes are uncertain, organizational actors have conflicting goals, and organizational conflicts will be resolved through the exercise of power and influence. Hence, political influence activities are essential for reaching strategic decisions and achieving functional and organizational objectives [2,35].

The NPD process represents a fertile ground for political behavior for several reasons. First, factionalism occurs in NPD teams [11,38,48] wherein different functions particularly marketing and R&D/engineering develop "different thought worlds" and a sense of "us" versus "them." Given the proclivity for functional sentiments, researchers in NPD have found strong

support for the notion that factionalism engenders political behavior [28,48]. Second, the NPD process engenders political behavior because of the power imbalance among the participants. Asymmetric power engenders resistance and conflict among participants and hence fuels their use of influence tactics in decision-making [2,8]. Third, the NPD process is conducive for political behavior because of its potential importance and significant effect on organizational resource allocation and power distribution. As Frost and Egri [15] argue, radical innovations give rise to political behavior largely because they cause fundamental changes in task interdependence and relationships among organizational functions. Interdependence often implies that one function needs to relinquish some degree of control over resources and outcomes [35]. Pearce [34] also notes that increasing interdependence implies the need for greater coordination, joint problem solving and mutual adjustment, all fertile conditions for political conflict and the use of influence tactics. Yet, prior research has looked at the interdependence between marketing and other functions from the resource dependence perspective and has not examined the political behavior aspects of this phenomenon (see [17] for a review).

Because politics in the NPD process results from different reasons, the related political activities may occur at various levels in the organization. For example, Eisenhardt and Bourgeois [7] examine the politics among top management teams in strategic decision making. Frost and Egri [15] demonstrate how the interplay of power and politics between innovators and other organizational actors determines the success or failure of innovation projects. Maute and Locander [30] investigate how new product managers influence stakeholders in NPD projects. Although the literature shows that functional interaction is embedded within a political context involving struggles for resources and power [44], to our knowledge few studies have systematically investigated the political issues among cross-functional participants, particularly between marketing personnel and other members, in the NPD process. This is unfortunate because, as noted earlier, marketing's interaction with other departments has been viewed as a critical factor for new product success [17,19,36]. In this study, we focus on the political activities within a cross-functional context (e.g., marketing and R&D interaction). We argue that, because marketing's interaction with other departments is a political process, understanding what and how influence tactics are used to achieve influence is a signif-

icant issue both in theory and in practice. The preceding discussion raises the following research questions:

- What is the degree of marketing's influence in the NPD process?
- What influence tactics do marketing use in the NPD process?

Influence and Influence Tactics in the NPD Process

Influence refers to the degree of success that an influence source has in changing the attitudes and behaviors of an influence target [25,47]. It therefore reflects the impact of the influence source on decisions of the influence target. From a political influence perspective, cross-functional politics involve attempts by participants from different departments involved in a decision making process to enhance their impact on the decision and its outcomes [7]. Power is the raw material for such influence, reflecting the source's ability to influence the perceptions, behavior, and/or decision making of the target [13]. Because power sources describe only the potential for influence, Thompson and Luthans ([46], p.75) argue that "power is manifested through behavioral actions." Thus, research on influence in the organizational politics paradigm must focus on behaviors not on power. Similarly, with respect to interfirm interactions in distribution channels, Frazier and Summers ([13], p.43) contend that greater understanding is gained not by studying power per se, but rather influence tactics: "the content and structure of the communications utilized by a source firm's personnel in their influence attempts with target firms".

Consistent with these arguments, in this study, we focus on marketing's influence tactics in NPD decision making. Pearce ([34], p.207) defines political influence activity as "the set of influence tactics that attend shared decision making" within a team. We define marketing's *influence tactics* as the activities that marketing personnel (the source) direct at team members (the target) for the purpose of effecting a change in their perceptions, attitudes and behavior [13]. The assumption is that the efficacy of power depends on the tactics by which marketing applies its power and/or overcomes the power of others to achieve influence. Influence tactics have been conceptualized and operationalized from a variety of dimensions in different disciplines [13,14,24,45]. Although there are several influence tactics potentially open to

marketing personnel in the NPD process, prior conceptualizations are characterized within specific contexts, some of which may not be readily applicable to the NPD context. For example, though reward is a widely used influence tactic [14,41], in the NPD context team members have little or no power to provide rewards.

In this study, we adapt Frazier and Summers' [13] classification of influence tactics because it has been widely used in the marketing literature and the measures have been shown to be reliable and valid [3,47]. The six influence tactics are: information exchange, recommendation (i.e., use of rational logic), request, legalistic plea (i.e., use of organizational rules and regulations), threats and promises. However, threats and promises, are not used in this study because our interviews with marketing and R&D managers show that they may be difficult for targets to assess. Venkatesh et al. [47] also note that threats and promises may be secret to all except the focal persons. Therefore, they are difficult to assess because they are not open to potential influence targets.

We add three additional tactics to this classification: upward appeal, coalition formation and persistent pressure. The first two tactics are rooted in the social psychology literature and are shown to be pervasive in the lateral influence context (e.g., marketing and R&D) [4,25,50]. Further, empirical evidence in the NPD literature [12,48] and our pilot interviews with Chinese managers show that these tactics may be highly relevant in the NPD context. Indeed, Workman [48] finds them as the predominant tactics used by marketing personnel to gain influence over engineering in the NPD process of a high technology firm where marketing's role is constrained. Finally, persistent pressure reflects the degree to which the influence source persists in its efforts to achieve influence over the target. Hence it is akin to the degree of effort and assertiveness in putting one's viewpoint to the influence target [49,50]. Though this tactic has been emphasized in the literature [16,25], it has not been systematically investigated along with other types of influence tactics in the NPD literature.

There is increasing consensus that influence tactics may be categorized into soft and hard types based on the degree of coercive intensity inherent in the tactics. Coercive intensity refers to "the extent to which a target. . . feels that not complying with the wishes of the source will lead to adverse consequences for him or her" ([47], p. 72). A soft strategy is designed to gain the volitional compliance of an influence target to the

demands of the influence source. In other words, with soft influence tactic compliance is gained without coercion and threats to the influence target. Thus, in using soft influence tactics, the source believes that the target has the option of noncompliance with little cost [9,24]. Hence, gaining compliance by using soft tactics is based on creating interpersonal liking, building a sense of obligation, and reciprocity [24,37]. In contrast to soft tactics, hard influence tactics involve coercion and threats. By using this type of tactics, the source expects compliance to be gained through exercising power in an impersonal and manipulative way [9]. The source uses threats believing that the influence target faces high costs for noncompliance and hence will comply with his/her demands [37]. Compared with soft tactics, it is suggested that hard tactics are less effective in gaining influence because they lead to low task commitment from the target, reduce process efficiency, and lead to poor performance and dissatisfaction [7,49,50].

Drawing on previous research [9,13,37,43], in this study we categorize information exchange, recommendation, and requests as soft influence tactics because they clearly involve little or no threat and coercion. Coalition formation is also categorized as a soft tactic because it is devoid of threats and challenges to the authority of the influence target [37]. The influence source mobilizes the support of co-workers who are likely to use rational persuasion and personal appeals to get the influence target to comply with the demands of the influence source [9]. Legalistic plea, upward appeal, and persistent pressure are categorized as hard influence tactics. Legalistic plea involves the evoking of organizational rules and regulations to gain compliance, and thus involves a threat of adverse consequences for noncompliance. Upward appeal or taking matters over the head of the influence target involves a direct threat to his/her authority [9]. Finally, use of persistent pressure with an influence target is believed to convey or presage the threat of poorer working relationship or other antagonistic behavior on the part of the influence source if compliance is not forthcoming from the target [9].

The preceding discussion is conceptually and empirically grounded in the Western literature on participant influence behavior in the NPD process. Few, if any, cross-cultural research exists on influence tactics in the NPD process ([28,39,40] for exceptions). We examine influence tactics in the context of Chinese firms, hence we expect some effect of culture on the relationships explored. Chinese culture has been de-

scribed as collectivist and high on power distance. In a collectivist society, in contrast to an individualistic society, cooperative behavior, group harmony, interpersonal relations and authority orientation are highly valued in organizations [22,39,40]. For example, in the NPD process, the team's goals have precedence over individual's goals [39]. Power distance reflects the willingness of individuals in a society to accept an unequal distribution of power and a deference of power to people with expertise, status and rank. It shapes people's beliefs about the primacy of internal rules and regulations such that people in high power distance societies have greater respect for authority and follow established rules and regulations. In a high power distance culture, hierarchical structures are used to preserve social order and distribution of power [22]. Based on prior research findings [22,28,39,40], the use and effectiveness of marketing's influence tactics are likely to be affected by these cultural dimensions.

In summary, in the NPD context of firms in a collectivist and high power distance culture, we focus on seven types of influence tactics in this study: soft tactics - information exchange, recommendation, request, and coalition formation; and hard tactics—legalistic plea, upward appeal, and persistent pressure (see Table 1). Though not exhaustive, these seven tactics cover a wide variety of soft and hard influence tactics potentially relevant to marketing's effectiveness in influencing other team members in the NPD process.

Frequency of Use and Efficacy of Marketing's Influence Tactics

In terms of usage frequency, Pearce [34] suggests that hard tactics predominate in a political arena. The logic is that where decision making is characterized by different thought worlds, factionalism, and interfunctional conflict, communication becomes unidirectional characterized by negativity and hostility. Hence, in the NPD process, differences in goals and philosophies between marketing and other departments undermine the effective application of soft tactics. The reason is that when marketing and other departments differ on means and ends there would be little basis for rational persuasion, logical arguments, effective information exchange and requests. Perhaps the decreased effectiveness of soft influence tactics explains why hard tactics were prevalent in a high technology firm studied by Workman [48]. The preceding discussion raises two questions:

Table 1. Marketing's Influence Tactics in the New Product Development Process*

Influence Tactics	Definition	Sources
Soft Tactics		
Information exchange	Marketing provides general market information and discussions on general NPD issues without suggesting specific actions to the influence target.	[13]
Recommendations	Marketing uses reason, logic and rational persuasion to convince the influence target that following a specific course of action is likely to be beneficial to the NPD effort.	[13]
Request	Marketing informs other members to take suggested actions based on personal relationships.	[13]
Coalition formation	Marketing builds alliances with co-workers and members from other departments to gain support for its viewpoint or demands on the influence target.	[4,24,48]
Hard Tactics		
Legalistic plea	Marketing cites organizational rules and regulations that require the influence target to perform a certain action.	[13]
Upward appeal	Marketing appeals to superior or high authority in the organization to support its viewpoint or demands on the influence target.	[4,24,48]
Persistent pressure	The amount of effort, persistence and pressure that marketing brings to bear on the influence target to accept its viewpoint or demands	[16,25]

* We caution that this binary categorization into soft and hard tactics is not sensitive enough to capture the finer differences among these tactics. People may use similar tactics in different ways [9], which may affect the degree of perceived coercive intensity involved. For example, regarding the soft tactics, it has been argued that recommendation appears to entail a certain level of coercion [47]. At this embryonic stage of this research, we are unable to arrange these influence tactics on a continuum from soft to hard to reflect the degree of coercive intensity in each tactic.

- What is the relative frequency of marketing's use of influence tactics?
- How effective are marketing's influence tactics in achieving influence in NPD projects?

Prior research suggests that the degree of influence that the source has on the target varies with the task-specific situational characteristics [9,16]. Thus, to fully understand the efficacy of marketing's influence tactics in the NPD process, a contingency approach is needed. Two contingent factors have engaged extensive attention in the literature and are particularly noteworthy. The first one is the *degree of interdependence* between marketing and other functions as reflected by their interaction at each stage of the NPD process. Griffin and Hauser [17] suggest that the NPD stage is an important situational variable affecting the degree of integration and interaction between marketing and R&D in the process. Marketing's power will change in NPD decisions across different stages. Following John's [23] categorization of the NPD stage, the initiation stage involves idea generation, screening and concept development and testing whereas the implementation stage comprises the actual product development, marketing and product launch. It is possible that since the initiation stage has greater technical complexity than the implementation stage, R&D may have greater departmental power and responsibility at this stage than marketing will. Conversely, at the implementation stage, marketing may have greater de-

partmental power given the fact that marketing issues become more important in launching and promoting new products. These different power positions suggest that the perceived importance of marketing differs across the two phases such that the effectiveness of a specific influence tactic used varies accordingly.

The second important contingent factor is *interdepartmental conflict*. Ruckert and Walker [38] suggest that the amount of conflict between marketing personnel and people in other departments may result in reduced interfunctional performance. Seers [42] finds that the relationship quality among team members determines their influence activities. The literature suggests that where there is a high degree of conflict between marketing and R&D, R&D is likely to feel vulnerable about being misled by marketing and is less likely to use information provided by marketing [19]. Because of lack of trust and cooperation between them, such behavior is engaged in to remove any perception of being controlled by the marketing function [33]. Hence, interdepartmental conflict may reduce marketing's influence because R&D may ignore its contributions to the NPD effort.

The discussion above suggests that the degree of interaction at each stage of the NPD process and interdepartmental conflict have potential in moderating the effect of marketing's influence tactics on its influence in the NPD process. However, we are unable to develop specific hypotheses for each influence tac-

tic given the dearth of theory and empirical research. We pose an empirical question:

- To what extent is the effectiveness of marketing's influence tactics dependent on the interdependence at each stage of the NPD process and the degree of interdepartmental conflict?

Marketing's Influence Tactics: Whose Perspective?

The assumption underlying the conceptualization of influence and influence tactics is that the effectiveness of marketing's involvement in the NPD process depends on its success in influencing other team members and developing their commitment to its contributions. Hence, our focus is on marketing's influence on NPD decisions by examining marketing personnel's use of various influence tactics to change other team members' behavior and attitudes. Because influence is a mutual process (the source versus the target), assessment of the influence process could be done either from the source's or the target's perspective. Yet, the perceptions that the source has of his/her influence behavior differ considerably from those of the target. It is argued that using the source as the respondent to describe his/her own influence tactics may be problematic because self-descriptions are prone to substantial social desirability and response bias [21,29]. For example, Yukl, Kim, and Falbe ([49], p.315) suggest that responses from the target may be more accurate than those from the source because the target is in a better position to rate the context factors, the power of the source and to describe his/her influence tactics. It appears that the use of the target as a respondent may be the most useful in assessing the antecedents and outcomes of the influence tactics of the source (e.g. [4,21,25,28]).

In tune with the literature, we examine marketing's influence tactics from the perspective of R&D participants (the target) in the NPD process. Several factors are considered in adopting R&D's perspective in this study. First, extant research affirms that marketing and R&D are the two prominent protagonists in the NPD process. As such, the R&D participant in a NPD project is likely to be the most knowledgeable about the marketing participant's influence behavior [18,44,48]. Second, R&D is usually the major bottleneck to marketing's influence in the NPD process [48]. Hence, it is argued that R&D is most likely the major target of marketing's influence tactics. If so, R&D personnel might be more familiar with market-

ing's behavior than other members of the project team. Third, R&D respondents in this sample had participated in an average of 4.93 projects, which gave them substantial experience to comment on the behavior of their marketing counterparts.

Research Method

Sample and Data Collection

A random sample of 200 firms was selected from a sample frame provided by the Association of High and New Technology Enterprises in the Beijing Experimental Zone (BEZ). All the firms held the New-tech Enterprise Certificate and Instrument of Ratification approved and issued by the BEZ office. We contacted these firms with the help of the director of the BEZ, explaining the purpose and significance of the study and inviting them for participation in the project. As a result, 114 firms with 200 projects agreed to participate in the study.

To improve the validity of the data collected, three actions were taken. First, the R&D informant was asked to identify the firm's most recently developed new product that has been in the market for a sufficient time (minimum 12 months) to measure performance. Second, following Kohli's [25] work, the R&D informant was asked to answer the questionnaire with reference to a specific marketing person about whose behavior in the NPD process he or she was most knowledgeable. Third, an on-site interview approach was used to collect the data. By using this approach, we ensured that the R&D respondent was directly involved in the project selected and understood the purpose of the research and the interview focused on the appropriate project. Information about 128 of the 200 NPD projects was received from firms in the electronics, information technology, chemicals, electrical, and new pharmaceuticals and bioengineering industries. This represents a response rate of 64%. Using the respondent's business card, one of the authors telephoned each respondent to confirm that the interview took place and that he or she completed the interview and the questionnaire. Ninety-two percent of respondents requested a copy of executive summary of the study, indicating that the respondents are more likely to provide candid responses to the study.

We found no significant differences between the sample and the population in terms of the percentage of firms from each industry. Twenty-eight percentage

of the products were described as new to the world, 46% as new to the company, 16% as line extensions and 10% as product improvements. We also checked the representativeness of the new product projects selected by the informants as reference for the study. We asked the respondents the following question on a five-point scale: "Considering your firm's new product operations and the nature of the product you have selected, to what extent is this product representative of new product projects of your firm?" The mean of these products' representativeness is 3.46, suggesting that the selected projects are not highly representative of those developed in the sampled firms. This is to be expected since projects that are dissimilar to the firm's previous projects are more likely to provoke the use of influence tactics [15].

Constructs and Measures

Previously developed measures were adapted for the study. To avoid cultural bias and ensure validity, special attention was paid to establishing equivalence of the measures. The original English questionnaire was first reviewed and revised by two marketing academics with substantial research experience in the subject area, and then translated into Chinese by two bilingual academics. The Chinese version was then back translated into English by two different bilingual academics with several years of experience in China and thus knowledgeable about the practices of Chinese enterprises. Different translations were compared to detect any significant misunderstandings due to translation. The instrument was pretested by a series of preliminary interviews with 12 R&D and marketing managers. Three main issues were covered during these interviews. First, each manager provided opinions on marketing-R&D relationships in NPD and the specific role of each function. Second, the factors that tended to enhance or hinder the successful completion on NPD projects were explored. Third, each manager provided opinions on the measurement scales, their relevance to the Chinese context, and their completeness. Each manager then was asked to complete the questionnaire and verbalize any thought that came to mind, including ambiguities, inapplicable questions and suggestions for improvement. Table 2 contains the measures of each construct.

Two factors that may impact marketing's influence were controlled in this study. The first, project team size, refers to the number of persons in the NPD project team. Hare [20] suggests that an individual's

influence in a team is inversely related to team size. An individual in a large team tends to have less impact and achieve less influence because there are fewer and lower quality interactions between members. The second factor, self-perceived influence, refers to the degree of influence that the R&D respondent believed he or she exerted in the NPD process. It is controlled for to account for the possibility that the R&D informants may attribute less influence to marketing if they perceive their own influence to be high [25].

Scale Reliability and Validity

We assessed internal consistency for multi-item scales by computing Cronbach's alpha. Scale items with low interitem correlation were eliminated to achieve a higher reliability of the scale. They ranged from 0.63 to 0.93, thus meeting the requirements suggested for exploratory research. It is important to note that the scales of influence tactics in this study have much higher alpha coefficients than those reported in previous studies (e.g. [24,47]).

We examined convergent and discriminant validity of the measures by using confirmatory factor analysis (CFA) [1]. Because of sample size restrictions, three separate tests were performed, each involving most similar constructs. This procedure is argued to provide a more conservative test than one involving all scale items [28]. The CFA results are also presented in Table 2. Significant factor loadings reveal convergent validity for indicators whereas confidence intervals around factor correlations excluding 1.0 provide evidence of discriminant validity [1]. The model fit statistics indicate reasonable fit of each measurement model. Table 3 shows the correlation matrix, reliabilities, means and standard deviations for each scale (except the NPD stage and type of product).

Findings and Discussion

What is the degree of marketing's influence in NPD projects?

We adopted eight items to assess marketing's influence in new product decisions as perceived by R&D using a five-point Likert scale (1 = very low; 5 = very high). The mean of marketing's influence is 3.53, indicating a moderately high impact on new product decisions (see Table 3). Because the R&D informant may be biased in assessing marketing's influence in the NPD process, we also asked the informant to

Table 2. Construct Measurement Summary: Confirmatory Factor Analysis

Item Description Summary	Standardized Loading	<i>t</i> -value
Constructs in Model 1		
Marketing's Influence ^a		
1. How much weight did the new product team give to his or her input?	0.67	8.34
2. How much impact did she or he have on the thinking of the project team members?	0.78	10.31
3. To what extent did she or he influence the criteria used for making the final decision?	0.80	10.71
4. How much effect did his or her involvement in the new product team have on the various options were rated?	0.78	10.36
5. To what extent did she or he influence others into adopting certain positions about the various options?	0.82	11.11
6. How much change did she or he induce in the preferences of other members?	0.84	11.51
7. To what extent did others go along with his or her ideas?	0.81	10.89
8. To what extent did the final decision reflect his or her views?	0.82	11.18
Self-Perceived Influence ^a		
1. How much weight did the team members give to your opinions?	0.80	10.53
2. To what extent did you influence the criteria used for making the final decision?	0.84	11.41
3. How much effect did your involvement in the team have on how the various options were rated?	0.84	11.47
4. To what extent did the final decision reflect your views?	0.81	10.68
5. To what extent did your participation influence decisions eventually reached?	0.83	11.12
Persistent Pressure ^b		
Relative to others,		
1. She or he spent more time to impress his or her views on the team members.	0.65	7.69
2. She or he tried harder to shape the thinking of others.	0.81	10.27
3. She or he spent more energy to make sure his or her opinions were taken into account.	0.86	11.29
4. She or he exerted more effort to make sure the final product reflected his or her views.	0.71	8.74
Constructs in Model 2		
Information exchange ^c		
1. Focused on general market information for making our team work more effective.	0.60	6.63
2. Discussed the issues without making specific statements about what she or he would like others to do.	0.54	5.91
3. Emphasized critical market information that could lead the team making effective decisions.	0.60	6.63
4. Attempted to influence the committee by presenting marketing information related to the various options.	0.74	8.62
5. Attempted to change our perspective by looking at how our decisions are affected by the market environment.	0.61	6.78
Request ^c		
1. Requested our compliance in his or her own name.	0.81	8.82
2. Discussed with us privately and requested acceptance.	0.83	9.00
3. Requested our cooperation, utilizing his or her personal relations.	0.44	4.73
Recommendation ^c		
1. Made it clear that by following his or her recommendation(s), our team would benefit.	0.75	8.89
2. Made it explicit, when making a suggestion, that it was intended for the good of our operation.	0.74	8.75
3. Provided a clear picture of the anticipated positive impact on our operations his or her recommended course of action will have.	0.66	7.64
4. Indicated that a better decision would be made by following his or her suggestion(s).	0.58	6.56
Constructs in Model 3		
Interdepartmental conflict ^b		
1. R&D and marketing in the team get along well with each other (r).	0.77	9.87
2. When R&D and marketing personnel get together, tensions frequently run high.	0.82	10.65
3. For each decision of the project, R&D and marketing make it a point to keep each other well informed (r).	0.85	11.25
Legalistic Plea ^c		
1. Made a point to refer to his or her legitimate right to gain our compliance on a particular issue.	0.66	8.10
2. Used sections of company rules and policies as a "tool" to get us to agree to his or her demands.	0.75	9.68
3. Made biased interpretations of company rules in order to gain our cooperation in following his or her views.	0.78	10.27
4. Made a point to refer to company policies when attempting to influence our action.	0.80	10.47
5. Indicated that she or he expected others to comply with him or her because of his or her job position.	0.80	10.52

(Continued)

Table 2. Continued.

Item Description Summary	Standardized Loading	t-value
Upward Appeal ^c		
1. Obtained the support of superior members of the organization to back up his or her point of view.	0.84	11.36
2. Obtained informal support from superiors for his or her position.	0.81	10.79
3. Got superior members in the firm to argue his or her case to other members.	0.83	11.21
Coalition formation ^c		
1. Obtained the support of co-workers to back up his or her request.	0.83	10.80
2. Obtained the support of members from other departments to back up his or her request.	0.81	10.50

Model fit indices

Model 1. $\chi^2 = 141$ ($p = 0.06$), GFI = 0.89, RMSEA = 0.04, NNFI = 0.98, CFI = 0.98.Model 2. $\chi^2 = 72$ ($p = 0.03$), GFI = 0.91, RMSEA = 0.06, NNFI = 0.94, CFI = 0.95.Model 3. $\chi^2 = 76$ ($p = 0.36$), GFI = 0.92, RMSEA = 0.05, NNFI = 0.96, CFI = 0.98.^a Constructs were measured by five-point scale: 1 = very low, 5 = very high.^b Constructs were measured by five-point scale: 1 = strongly disagree, 5 = strongly agree.^c Constructs were measured by five-point scale: 1 = never, 5 = always.

* r denotes reverse coded.

assess his/her own influence. We then compared the mean of marketing's influence with that of R&D's self-perceived influence. A difference may indicate the relative influence of marketing in NPD compared with R&D. The mean of R&D's self-perceived influence is 3.60 on a five-point Likert scale. A *t* test analysis showed no significant difference ($t = 0.79$, $p > .10$) between marketing's influence and R&D's influence. This finding suggests that from R&D's perspective both marketing and R&D seem to have equivalent influence on new product decisions. This finding in the Chinese context provides further support for the longstanding view that marketing and R&D interaction is critical for new product success [17,18,44]. If marketing's influence is important, the question then is: how does marketing achieve its influence? We answer this question by investigating the frequency

and the efficacy of the use of marketing's influence tactics.

What is the relative frequency of the use of marketing's influence tactics in NPD?

We assessed the frequency of the use of each type of influence tactics by using the average score across the items. The use of average scores accounts for differences in the number of items in the various influence tactic scales [47]. The data show that marketing's influence tactics can be arrayed on a continuum of usage frequency and could be divided into three groups. A *t* test indicates that these groups are significantly different at the $p < .01$ level.

The first group is the *most frequently used* influence tactics:

Table 3. Correlation Matrix, Means and Reliabilities of Measures

Variables	1	2	3	4	5	6	7	8	9	10
1. Marketing's influence	1									
2. Persistent pressure	.50 ^b	1								
3. Information exchange	.46 ^b	.54 ^b	1							
4. Recommendation	.38 ^b	.52 ^b	.54 ^b	1						
5. Legalistic plea	.10	.32 ^b	.11	.46 ^b	1					
6. Request	.11	.29 ^a	.22	.36 ^b	.55 ^b	1				
7. Upward appeal	-.01	.28 ^a	.34 ^b	.38 ^b	.47 ^b	.59 ^b	1			
8. Coalition formation	.31 ^a	.35 ^b	.34 ^b	.65 ^b	.56 ^b	.44 ^b	.42 ^b	1		
9. Interdepartmental conflict	-.34 ^b	-.12	-.30 ^a	-.18	.21	.13	.01	.12	1	
10. Self-perceived influence	.34 ^b	.03	.23	.33 ^b	-.00	.03	.09	.30 ^a	-.31 ^a	1
Mean	3.53	3.56	3.37	3.32	2.44	2.37	2.67	2.96	2.15	3.60
Standard Deviation	.78	.80	.75	.82	.84	.99	.90	.96	.76	.71
Coefficient alpha	.93	.84	.78	.74	.83	.74	.63	.63	.76	.90

Note. Significance level (two-tailed): ^a $p < .01$; ^b $p < .001$.

- Persistent pressure (mean = 3.56),
- Information exchange (mean = 3.37) and
- Recommendation (mean = 3.32).

The second group is the *moderately used* tactics:

- Coalition formation (mean = 2.96) and
- Upward appeal (mean = 2.67).

The third group is the *less frequently used* tactics:

- Legalistic plea (mean = 2.44) and
- Request (mean = 2.37).

Our findings indicate that persistent pressure represents one of the most frequently used influence tactics by marketing in the NPD process. Persistent pressure describes marketing personnel's persistence or intensity of effort to influence team members' attitudes and behavior. This finding is in tune with the literature that sees the NPD process as a contest among different functions for power and resources. It appears that the more marketing tries harder to shape the thinking of the NPD team and spends energy to ensure that its viewpoints are taken into account, the more likely the final decisions would reflect its viewpoints. It appears to be a necessary element of marketing's arsenal in managing political relationships in NPD decisions because of the scarcity of resources and struggle for ascendancy among NPD team members [15,31]. Recall that persistent pressure, a hard tactic, conveys a threat of poorer working relationships on the part of the influence source for the target's noncompliance. Recognize that an individual uses an influence tactic according to his/her subjective assessment of the probability of its effectiveness [37]. This suggests that the need for group harmony and personal relationships in a collectivist society will likely encourage the frequent use of this tactic in the belief of its effectiveness.

Consistent with prior studies in buying centers [47] and interfirm relationships [3], we find that information exchange and recommendation are the next most frequently used influence tactics. Unlike the persistent pressure tactic, these two tactics are soft and devoid of any coercion and threats on the influence target. As Venkatesh et al. [47] note, these tactics are oriented to the task at hand and are hence considered by the target as professional. It appears that these qualities along with the perceived responsibility of marketing to provide market information to the NPD team lead to the high usage frequency of these tactics. Further, these tactics imply perceived expertise and competence of

the influence target, qualities that are valued and respected in high power distance societies [22,39,40].

Consistent with the findings by Kipinis et al. [24], we find that upward appeal and coalition formation tactics are used moderately in the NPD context. By using upward appeal, marketing goes over the head of the influence target to appeal to a superior manager for support for its viewpoints and to persuade the target. This tactic is a threat to the power and influence of the target, and in the collectivist culture of the Chinese, may be seen as disharmonious to the NPD team and may involve significant face loss costs for the influence target. Thus, the moderate use of this tactic may be due the fact that it may be perceived as unprofessional by our sample. By using coalition formation, marketing attempts to build alliances with peers to gain support for its viewpoints. As mentioned previously, this is a soft tactic. Hence, its moderate use may be due to the increasing perceived expertise and importance of marketing in NPD in China [6]. In other words, with increasing recognition of marketing, coupled with the tendency of individuals to accord greater respect to expertise in a high power distance culture, marketing is less likely to require the support of other co-workers to achieve influence in the NPD process. However, it is important to note that, in general, the use of both upward appeal and coalition influence tactics suggests that marketing's formal power and personal resources are lower relative to others in the NPD team. Consequently, appealing to those with superior power and forming alliances to secure support of others are necessary to achieve influence [4].

Legalistic plea and request are the least frequently used influence tactics by marketing personnel in this sample. Legalistic plea is a hard tactic and is therefore less frequently used [47]. However, one could argue that given the high power distance nature of the cultural setting where individuals tend to accept an unequal distribution of power more readily [22], people expect and follow organizational rules and procedures. Hence, the perceived primacy of organizational rules and regulations should make references to them to support one's demands and viewpoints in the NPD process a legitimate and professional tactic. This should make the use of the legalistic plea tactic more frequent. Although speculative, this argument indicates that we do know relatively little about what motivates marketing personnel to use legalistic plea tactic in the NPD process. This lack of knowledge is perhaps more pertinent with respect to the request tactic. Note that this tactic refers to the use of personal

relationships as a basis to garner support for one's viewpoint. The lack of frequent use of this tactic can be found in Venkatesh et al.'s [47] argument that request appears like a soft tactic but is also inherently coercive. The logic is that a request appeals to personal likeness and reciprocity and thus connotes implied punishment for noncompliance. Further, the basis of a request tactic being personal friendship is not related to the NPD task at hand and therefore may leave the influence target unconvinced and to question the motives of the influence source. Although plausible, this argument appears less cogent in a collectivist cultural context of our study where NPD participants prefer to champion ideas through personal interaction and relationships [28,39,40].

In summary, our findings suggest that a binary schema of influence tactics based on coercive intensity (e.g., soft and hard) may not sufficiently explain the variation in usage frequency of marketing's influence tactics. We are not sure what factors affect marketing's use of a specific influence tactic. However, our data appear to indicate that, with the exception of persistent pressure, marketing is reluctant to use influence tactics that are likely to be socially costly and that would create unfavorable impression on the influence target.

How Effective Are Marketing's Influence Tactics in Achieving Influence in NPD Projects?

We examined the effectiveness of marketing's influence tactics with ordinary least squares regression. We regressed marketing's influence on the seven influence tactics and two control variables. Before conducting this analysis, we checked for potential multicollinearity among independent variables. Though some of the variables are significantly related, their associated variance inflation factors ranged from 1.07 to 2.52, indicating that multicollinearity is not a likely threat to the parameter estimates. The results are presented in Table 4.

The results in Table 4 indicate that the regression model is significant at $p < .01$ level and the predictors explain 48% of the total variance in marketing's influence. Four of the seven tactics examined are significantly related to marketing's influence on NPD decisions, with no discernible pattern reflecting the relative efficacy of the soft and hard influence tactics:

- Persistent pressure ($\beta = 0.42, p < .01$)
- Upward appeal ($\beta = -0.30, p < .01$)

Table 4. Marketing's Influence on NPD Decisions: Main Effects Model

Predictor variables	Standardized Regression Coefficient	t-Value
Control variables		
Team size	-.20	-2.59 ^b
Self-perceived influence	.28	3.31 ^c
Independent variables		
Influence Strategies		
Soft tactics		
Information exchange	.21	2.10 ^b
Recommendation	-.08	-.70
Request	.07	.72
Coalition formation	.15	1.40 ^a
Hard tactics		
Legalistic plea	-.02	-.21
Upward appeal	-.30	-3.01 ^c
Persistent pressure	.42	4.27 ^c
R^2	.48	
Adjusted R^2	.43	
F-value	9.61 ^c	
d/f	9/95	

Note. Significance levels shown are one-tailed for hypothesis-testing variables and two-tailed for controls.

^a $p < .10$; ^b $p < .05$; ^c $p < .01$.

- Information exchange ($\beta = 0.21, p < .05$)
- Coalition formation ($\beta = 0.15, p < .10$)

Our findings suggest that persistent pressure is the most effective influence tactic followed by information exchange and coalition formation. The strong effect of persistent pressure on marketing's influence is consistent with prior findings in the literature. For example, Gresov and Stephens [16] indicate that persistent pressure represents a viable strategy for achieving influence in a political context. This result provides further support for French and Raven's [14] notion that there is a "subjective" side of power. People may not actually possess certain power resources, but as long as they can persuade others that they do, they can still gain influence. This finding is important because it offers the first systematic empirical support of this theory in the context of NPD decisions, but it does not support assertions that increased effort at influence may lead to lower influence because of increased resistance [25]. As mentioned previously, persistent pressure implies subtle threat to working relationships for noncompliance. Perhaps, the high importance that individuals accord to group harmony and cordial working relationships in our context makes this tactic effective.

It is noteworthy that information exchange tactic,

which is not significant in prior research [47] in organizational buying centers, appears to be an effective tactic in this sample. This finding is consistent with the political perspective that access to information is a major source of influence in innovation [15] and that the effectiveness of influence tactics is embedded in the context [16]. The finding could also be a reflection of the increasing importance of marketing skills and resources for new product success in China [6]. The positive effect of coalition formation on marketing's influence indicates that in addition to their own power sources, marketing personnel may gain added influence through co-worker support. This finding is consistent with Brass and Burkhardt's [4] finding that coalition formation has significant relationship with power. It is also a reflection of the importance of peer network in gaining influence in collectivist cultures [28,39,40].

In contrast to coalition formation, upward appeal tactic has a significant negative effect on marketing's influence ($\beta = -0.30, p < .01$). This finding is contrary to Brass and Burkhardt's [4] finding of a positive effect. The negative effect of upward appeal can be explained by Venkatesh et al.'s [47] suggestion that interfunctional interaction focuses more on relationships than on transactions. The use of upward appeal may cause other members to feel pressure from senior management and thus is likely to damage the relationships among team members. Recall that Chinese culture emphasizes harmonious personal relationship in teams [22]. Hence, other team members may perceive the upward appeal tactic as unprofessional, a sign of lack of trust, and perhaps calculated to damage the image and status of the influence target in the eyes of senior managers. It is likely that such a tactic may be fiercely resisted and put strains on existing relationships [13].

As reported earlier, recommendation is a frequently used influence tactic. However, the data in Table 4 show that this tactic is unrelated to marketing's influence on NPD projects. It appears that in the NPD process, marketing personnel encounter difficulties in using rational persuasion and logical arguments to influence NPD decisions. This finding is not consistent with Venkatesh et al.'s [47] study of organizational buying decisions which reveals that recommendation is the most effective influence tactic. Note that reason and logic underlie the recommendation influence tactic. It focuses on the task at hand, involves explicit statements of the desired behavior of the target. Recommendation tactic is interpreted as an ability

to convince the target that a preferred course of action is in his/her best interest and that of the success of the project [4]. Given this quality and implied association with expertise, recommendation is generally accepted as an effective influence tactic. One reason for our finding may be that marketing personnel tend to be viewed as lacking technical knowledge in high technology firms [48] and thus their recommendations are less likely to be accepted by other team members. Another reason could be that there exist dissimilar views on means and ends for product decisions between marketing and other team members. Such differences prohibit the target's acceptance of the source's logical arguments and factual evidence as means of influence [34]. However, our finding is partially consistent with Markham's [29] findings that rationality is negatively related to the target's compliance with the influence of a new product champion. Pfeffer [35] also notes that the use of rationality is almost a religion in formal organizations, yet the widely held belief in its efficacy in decision making is seldom questioned. Our finding here reinforces this viewpoint.

The relationship between request tactic and marketing's influence is not significant in our study. Such nonsignificant finding has also been reported in a recent study of buying centers [47]. One likely reason is that, given the importance of NPD for the whole firm, marketing's use of personal relationships that underlies the request tactic is not viable in achieving team members' compliance with its viewpoints. In our collectivist culture context, a plausible rationale is that personal goals are subordinated to group goals. Hence, an influence tactic that implicitly or explicitly expresses and asserts personal interest is against the collective rationality of the NPD team.

The two control variables are significantly related to marketing's influence on product decisions. Marketing personnel appear to have lower influence in large new product teams ($\beta = -0.20, p < .05$). This finding is consistent with Hare's [20] arguments. Larger team size leads to less effective communication and greater political play. Hence, marketing's influence diminishes with larger team size because there are fewer interactions among team members as well as lower quality interaction. R&D's self-perceived influence has significantly positive relationship with marketing's influence ($\beta = 0.28, p < .01$), suggesting that the R&D informants may have underestimated marketing personnel's influence. If this is so, our findings here would be even stronger if the informants' assess-

ments of marketing influence were not contaminated by their own perceived influence. It is interesting to note that in prior studies in Western companies among buying centers, self-perceived influence has been found to be insignificant (e.g. [10,25]). It appears that our results about marketing personnel's influence tactics are conservative.

Is the Effectiveness of Marketing's Influence Tactics Contingent on the NPD Context?

To examine whether the effectiveness of marketing's influence tactics is contingent on the NPD stage and interdepartmental conflict, we adopted moderated regression analyses. The procedures are as follows: First, the overall significance of a model comprising the independent and control variables is evaluated. Then, the interaction terms are added to isolate the increase in R^2 . A significant increase in R^2 suggests the presence of moderating effect. Where this is the case, the individual interaction terms are then examined. Given the high correlation between independent variables and the interaction terms, a hierarchical analysis leads to distortions of the partial coefficients of the main effects terms. To reduce the potential effects of multicollinearity, the residual centering method developed by Lance [26] and used by several authors (e.g. [36]) was adopted. This method is reputed not only to reduce multicollinearity but also to separate the interaction and main effects and provide regression coefficients of the residual cross-product term, which is interpretable as the effect of the interaction term on the dependent variable. The results of the moderated regression analyses are presented in Table 5.

Effect of the NPD stage. With regards to the NPD stage, the results indicate that the addition of interaction terms with the seven influence tactics to the regression equation yields a significant increase in R^2 of 7% (F -value = 2.14, $p < .028$). This finding suggests that the impact on product decisions of marketing personnel's influence tactics is contingent on the NPD stage. Specifically, two soft tactics—coalition formation and information exchange—are more effective at the initiation stage whereas two hard tactics—legalistic plea and persistent pressure—are more effective at the implementation stage.

Our data show that coalition formation is more effective at the initiation stage than at the implementation stage ($\beta = -0.20$, $p < .05$). As noted previously, marketing appears to have less power at the initiation stage. According to power-dependence the-

ory [8], when there is power imbalance between two interacting parties, the weaker one tends to seek external support to achieve influence over the stronger one. Marketing may seek support through coalition formation to gain influence. This finding is consistent with Workman's [48] findings that marketing tended to use political coalitions to influence NPD decisions in an engineering-driven culture where marketing's role and power are limited. As Bacharach and Lawler [2] suggest, organizational members may need the support of peers when attempting to influence target persons who have greater power in specific decision making situations. In the context of the Chinese sample, given the increasing importance and image of marketing for NPD success [6], a more plausible explanation for this finding is that peer network is considered a viable tactic irrespective of the perceived power of marketing. This argument is consistent with Shane et al.'s [40] suggestion that in collectivist societies there is greater likelihood that technology champions will get people from different functions to support a new technology by invoking the collective goals of the team.

Information exchange appears to be more effective at the initiation stage than at the implementation stage ($\beta = -0.13$, $p < .10$). This finding is consistent with the view that marketing's information input is important in the early stage of development because marketing has the responsibility of representing the customers in the design process [17]. Particularly in an emerging market like China, the greater uncertainty of the market environment amplifies the importance of marketing [6] and perhaps its power at the initiation stage of the process. R&D's need for market information does increase the legitimacy of marketing personnel as sources of information in the Chinese firms under study. This reasoning is also consistent with the notion that greater uncertainty leads to greater use of the information provided by sources within the firm that are capable of providing such information [32].

Though the main effect of legalistic plea is not significant, we find that the effect of this tactic on marketing's influence is contingent on the NPD stage. The data suggest that legalistic plea is more effective at the implementation stage than at the initiation stage ($\beta = 0.24$, $p < .05$). Considering marketing's different task responsibilities across the two stages, marketing tends to have greater power at the implementation stage than at the initiation stage. The reason is that at the implementation stage, marketing may contribute more to launching and promoting new products.

Table 5. Results of Moderated Regression Analyses: Effects of New Product Stage and Interdepartmental Conflict

Model 1. Effect of New Product Stage	Standardized Regression Coefficient	Model 2. Effect of Interdepartmental Conflict	Standardized Regression Coefficient
Control variables		Control variables	
Team size	-.26 ^d	Team size	-.20 ^c
Self-perceived influence	.13	Self-perceived influence	.17 ^a
Main Effects		Main Effects	
Independent variables		Independent variables	
Information exchange	.22 ^b	Information exchange	.19 ^a
Recommendation	.03	Recommendation	-.16
Request	.12	Request	.09
Coalition formation	.05	Coalition formation	.23 ^c
Legalistic plea	.03	Legalistic plea	-.01
Upward appeal	-.41 ^d	Upward appeal	-.33 ^d
Persistent pressure	.40 ^d	Persistent pressure	.45 ^d
Moderator variable		Moderator variable	
New Product Stage (NPS)	.03	Interdepartmental conflict (IC)	-.12
R^2	.49	R^2	.48
Interaction effects		Interaction effects	
NPS × information exchange	-.13 ^a	IC × information exchange	-.07
NPS × recommendation	.05	IC × recommendation	-.11
NPS × request	-.04	IC × request	-.04
NPS × coalition formation	-.20 ^b	IC × coalition	.37 ^d
NPS × upward appeal	.06	IC × upward appeal	.01
NPS × legalistic plea	.24 ^b	IC × legalistic plea	-.24 ^c
NPS × persistent pressure	.17 ^b	IC × persistent pressure	.10
Incremental R^2	.07	Incremental R^2	.07
F Change	2.14	F Change	1.85
Significance of F Change	.028	Significance of F Change	.080
Full Model		Full Model	
	R^2		r^2
	.56		.55
	Adjusted R^2		Adjusted R^2
	.48		.47
	F -value		F -value
	6.72 ^d		6.36 ^d
	d/f		d/f
	17/88		17/87

Note. Significance levels shown are one-tailed for hypothesis-testing variables and two-tailed for controls.

^a $p < .01$; ^b $p < .05$; ^c $p < .01$; ^d $p < .001$.

Therefore, where they have greater dominance and control, the use of rules and regulations is more likely to be effective in achieving influence on NPD decisions. We find that persistent pressure is more effective at the implementation stage than at the initiation stage ($\beta = 0.17$, $p < .05$). Recall that marketing has dominant position for decision making at the implementation stage of NPD process. Our findings suggest that stronger persistent pressure will result in greater influence in a situation where marketing is perceived as a legitimate source of information.

The findings of this study extend previous research by revealing the moderating effect of interdependence between marketing and R&D at the NPD stages on the effectiveness of influence tactics. It appears that at the initiation stage of the NPD process soft tactics (information exchange and coalition formation) which are

devoid of threats and coercion are more effective. In contrast, at the implementation stage hard tactics (legalistic plea and persistent pressure) are more effective. If it is accepted that marketing has less power at the initiation stage than at the implementation stage, then this result is in tune with prediction of political influence perspective. Given its relatively weaker position, marketing may find that soft tactics that enhance communication and cohesion in its relationship with others in the NPD team are more effective, particularly in the Chinese context [6]. At the implementation stage where marketing is perceived to be more powerful, in contrast, its references to rules and regulations and use of pressure tactics to exact compliance are more effective. These hard tactics may be perceived by influence targets as legitimate, particularly so in our context where individuals are likely to defer

to those with greater power in the NPD process [21,39,40].

Effect of interdepartmental conflict. A similar moderated regression analysis with respect to interdepartmental conflict yielded an increased R^2 of 7% (F -value = 1.85, $p < .08$). The results indicate that the addition of the interaction terms to the regression model is moderately significant, supporting our argument that the degree of interdepartmental conflict affects the effectiveness of marketing's influence tactics in NPD decisions. We find significant interaction effects with respect to only two tactics: legalistic plea and coalition formation.

Coalition formation is more effective in achieving marketing's influence when interdepartmental conflict is higher ($\beta = 0.37$, $p < .001$). A plausible explanation is that interdepartmental conflict tends to increase the degree of factionalism within a NPD project team. Factionalism refers to a situation where team members from a specific department view themselves as quite similar to one another but different from those from other departments [34]. Factionalism may create disagreement and polarize attitudes between NPD team members and thus by building alliances of support marketing is likely to have impact on the NPD outcomes. The collective effort of peers and other co-workers appears to be more likely to enhance the influence of marketing personnel in such a situation. Our finding is consistent with Workman's [48] observations that in a high conflict environment, marketing's input is more likely to be disregarded in the NPD process irrespective of its quality due to mutual distrust. Hence, gaining support through informal peer networks is important to enhance marketing's influence [48]. This finding could also be explained by the fact that individuals in collectivist societies, such as China, are likely to accept ideas presented through personal networks and relationships, hence people prefer to champion new product ideas through such processes [39].

Although we reported that legalistic plea is used less frequently by marketing, the results suggest that it is a more effective tactic when conflict between marketing and R&D is lower ($\beta = -0.24$, $p < .01$). Rules and regulations clarify expectations and responsibilities between marketing and other departments involved in the NPD process. Therefore, given the high need for harmony in Chinese society the use of legalistic pleas may be seen as good citizenship behavior and may be considered as a more appropriate and legitimate tactic in congenial relationships [28].

Discussion and Managerial Implications

To our knowledge, this is the first study on the nature, frequency and efficacy of marketing's influence tactics in the NPD process. Departing from a normative view of marketing's role in the NPD process, we provide empirical evidence about the political nature of the NPD process and reveal that marketing's contribution to NPD decisions depends on how marketing personnel influence project team members through the use of various influence tactics. Despite the exploratory nature of the study, it does provide some insights into understanding marketing's role in the NPD process. Moreover, previous influence studies in the marketing literature have focused on interfirm relationships {e.g., manufacturers and distributors (e.g., [13])} and interpersonal communications {e.g., salespersons and customers (e.g., [48])}. Thus, by focusing on marketing's interaction with R&D, our study extends this research stream to an interdepartmental context.

Although it is expected that hard influence tactics are less effective in gaining influence than soft tactics [7,34,49], our findings do not provide conclusive evidence to support this proposition. Instead, they show that both soft tactics (e.g., information exchange and coalition formation) and hard ones (e.g., persistent pressure) have significantly positive impact on marketing's influence. From a pragmatic view of point, since these tactics are identified from the NPD context, they are relevant to marketing's influence on product decisions. Hence, our findings suggest that the efficacy of these tactics may be embedded in the context of an influence attempt and moderated by, for example the degree of interdependence at each stage of the NPD process and interdepartmental conflict. Further, our findings suggest that recommendation, request and legalistic plea are unrelated to marketing influence. This does not suggest that managers and researchers should disregard them or discourage their use. Because our findings support the notion that influence is a context-specific phenomenon, these tactics may be effective under certain conditions not examined here. Therefore, managers and researchers need to examine not only additional influence tactics but also conditions under which they are used.

We acknowledge that the current study is not a cross-cultural research. Yet, the unique characteristics of the Chinese culture, the research context of this study, and the inconsistent findings between this study and prior research conducted in the Western countries lead us to speculate that cultural values may represent

an important contextual variable affecting the efficacy of influence tactics. This is not surprising because influence tactics encompass ways of thinking when individuals decide to use their power on the influence target [2]. Yet, surprisingly few previous studies on influence tactics have addressed the impact of cultural values. Our findings here suggest that culture may influence the frequency of use and efficacy of specific influence tactics. Overall, our results suggest that managers who seek to use influence tactics in NPD should choose them with a careful attention to the cultural context.

Another important finding of this study is that the usage frequency of an influence tactic is not necessarily consistent with its effectiveness in achieving influence. For example, although recommendation tactic is frequently used, it appears not effective in enhancing marketing's influence on NPD decisions. Similarly, coalition formation is a moderately used tactic, but it appears to have significant impact on marketing's influence. The inconsistency between usage frequency and effectiveness of influence tactics suggests not only the need for careful selection of these tactics but also the need for managerial understanding why this inconsistency arises in the first place.

A review of the results of this study provides marketing personnel and managers responsible for ensuring market-oriented NPD with a better understanding of how the impact of marketing personnel and thus the use of marketing's input may be increased in the NPD process. Many NPD projects in most organizations in the West as well as in the East are still organized and managed on the classic resource dependence and information process paradigms. Although, a useful approach in many respects for diagnosing and finding solutions to problems in the NPD process, particularly with regards to the marketing-R&D interface, examining this interface from the political and influence perspective appears to provide added insights. Hence, the results of this research help marketing and new product managers to balance their orientation in the NPD process by offering empirical evidence in support of the effectiveness of marketing's influence tactics in the NPD process. Specifically, the findings suggest several pointed implications.

- *Marketing personnel influence NPD activity with several influence tactics that have differential efficacy.* The findings show that marketing personnel who use persistent pressure, information exchange, and coalition formations are likely to be successful

in affecting the NPD decisions. Persistent pressure indicates unrelenting effort to ensure that one's viewpoints are factored into the decisions made by the NPD team. Simply, put the message here is that hard work pays for marketing in achieving influence. The result pertaining to information exchange suggests that by providing general market information without indications of specific courses of action marketing enhances its influence. This finding appears consistent with the longstanding conventional wisdom that marketing participation in the NPD process is critical for new product success. However, recent research suggests that marketing's participation affects new product success not directly but rather indirectly through its influence [28]. The insight here is that influence tactics may have effects on new product success through the degree of influence they engender. Hence, managers and researchers should be concerned with the process through which marketing's influence tactics affect new product outcomes (see [29,30]). Finally, the positive relationship of coalition formation with marketing's influence suggests that by building alliances with peers for support for its viewpoints marketing achieves higher influence. This finding suggests the need for marketing to be conversant with the political landscape in the organization. As Pfeffer [35] suggests, it is only those who are aware of the nuances of the political landscape of the organization who are likely to be successful in using the support of others to bolster their influence. Marketing personnel should develop skills for forming and using peer alliances.

- *Frequency of use of influence tactics may not be consistent with their effectiveness.* Findings of the study suggest that recommendation is one of the most frequently used tactics but it is unrelated to marketing's influence. This is an important finding indicating that marketing personnel are not very efficient in their selection and use of influence tactics. The high usage rate of recommendation tactic may be traced to the rationality and logic that underlies it and the almost religious acceptance of it as an effective tactic in organizational decision-making [35]. Our findings and those of others (e.g. [29]) suggest that marketing and new product managers should begin to question the effectiveness of recommendation in decision-making contexts that involve organizational politics. At the very least, managers need to be careful with recommendation as an influence tactic in the NPD context.

- *Appealing to higher authority may not be an effective influence tactic.* Upward appeal is the only tactic found to have a direct negative effect on marketing's influence. As mentioned previously, this tactic may be seen as unprofessional, threatening and disharmonious, by the influence target, particularly in the Chinese context. Hence, it is likely to be resisted or receive only lukewarm acceptance. This finding is not in keeping with the observations of Workman [48] in a single computer firm. The message here seems to be that care should be taken in using this tactic in the NPD process since it is likely to have social costs that may limit its effectiveness.
- *Be sensitive to the context in which influence tactics are selected and used.* The observed contingency effects of information exchange, legalistic plea, coalition formation and persistent pressure suggest that marketing personnel should be sensitive to the immediate context of NPD decisions to select appropriate influence tactics. At different NPD stages and for different degrees of interdepartmental conflict, marketing personnel need to learn to use different tactics to influence NPD team members since their efficacy appears to differ. The simple message is that it may be more beneficial for marketing to use soft tactics such as information exchange and coalition formation at the initiation stage of the NPD process rather than at the implementation stage. Similarly, it appears that using hard tactics such as legalistic plea and persistent pressure may be more effective at the implementation than at the initiation stage. Finally, the results suggest that marketing personnel should think of adopting a legalistic plea tactic when they perceive a congenial relationship between marketing and R&D departments. Under this situation, the use of this tactic is more effective in gaining influence. We caution that this finding and implication may be specific to the sample and study context given the greater likelihood of the Chinese to accept rules and regulations than people in the West. Likewise, the finding that coalition formation is more effective when interdepartmental conflict is higher sends an important message. Building alliances to garner support for one's viewpoints in the NPD process, though effective, is even more so when the relationship between marketing and R&D is conflict ridden. In brief, marketing needs the support of others in situations where R&D and other team members would most likely not be receptive to its ideas.

Limitations and Future Research

Despite some contributions to the literature, this research has certain limitations that should be addressed in future research. Given the exploratory nature of the study, we suggest that future research could use the findings here as a foundation to develop and test a theoretical model that explores the antecedents and efficacy of marketing's influence tactics. An obvious set of factors to consider is organizational and personal factors (such as power sources of marketing personnel) [25]. Other contextual sources of power and those that reduce marketing's power such as engineering culture of the firm [48] should also be considered. With respect to outcomes, influence tactics should be linked to new product success, quality and creativity. Recent research suggests that the linkage between marketing's influence tactics and new product project outcomes may not be necessarily direct but indirect through their effect on project and strategy implementation [29,30]. Thus, future research that investigates potential outcomes of influence tactics should also consider potential mediators. We also encourage future research to investigate additional influence tactics that may be used by marketing and other participants in the NPD process.

Our findings suggest that the degree of interdependence at each stage of the NPD process and interdepartmental conflict moderate the effectiveness of certain influence tactics. Hence, we advise that future research should take a contingency approach by delineating the conditions under which the use of each particular tactic identified is more or less effective. A further useful avenue for future research would be the investigation of the influence tactics of other NPD team participants such as R&D, and the similarities and differences with those of marketing.

In conclusion, this study provides the first major empirical study of marketing's influence behavior and, more specifically, the use of influence tactics in the NPD process. We hope it will serve as a foundation that stimulates additional research in this area. Marketing's role in the NPD process is too important to leave its influence behavior unexplored.

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