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Is more always better? An investigation into the relationship between marketing influence and managers' market intelligence dissemination



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ABSTRACT

How does the influence of the marketing department within an organization affect marketing managers' dissemination of market intelligence (i.e., knowledge about customer needs and competitor activities) to managers of other departments? Three studies with 711 executive managers and integrated survey and experimental data offer insights. Rather than the positive relationship indicated by conventional wisdom, the study results indicate a curvilinear, inverted U-shaped effect of marketing's influence on marketing managers' dissemination of market intelligence. Managers in a marketing department with moderate influence within the organization are significantly more likely to disseminate market intelligence than are those in low and, interestingly, those in high influence departments. This finding adds nuance to the existing body of knowledge showing countervailing effects of a strong marketing department and implies that executives need to carefully manage the organization's culture to ensure well-balanced influences of the marketing department in relation to other corporate functions.

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1. Introduction

Marketing managers' active dissemination of market intelligence, defined as knowledge about customer needs and competitor activities, throughout an organization is a key component of a market orientation and an important antecedent of financial performance (Kohli & Jaworski, 1990; Maltz & Kohli, 1996). A global survey of more than 1200 executives (Global Intelligence Alliance, 2013) suggests that the dissemination of market intelligence can increase the efficiency of organizational decision making by 15%; another survey of 389 executives in 42 countries reveals that managers' *insufficient* sharing of market intelligence is a key barrier to an organization's financial performance (Economist Intelligence Unit, 2013).

To encourage marketing managers to disseminate market intelligence across functional boundaries, both marketers and researchers highlight the need to strengthen the influence of the marketing department within the organization (e.g., Jaworski, 2011; Webster, 1992). One Forrester manager even claimed that the "only way to have an organization aligned with what customers want is to have a strong CMO"

(MarketingWeek, 2012) who represents the strong influence of the marketing department within an organization (Nath & Mahajan, 2008). Despite this general belief in the importance of marketing's influence for ensuring the dissemination of market intelligence though, little empirical research has considered this relationship. Verhoef and Leeflang (2009) include a positive linear effect of marketing's influence on market orientation in a framework but also cite a deeper analysis of the relationship of these two variables as "the most important issue for further research" (p. 30). In particular, extant research has not examined whether this relationship is linear in nature, as is widely assumed—despite indications to the contrary.

We address this gap by investigating how the influence enjoyed by the marketing department affects marketing managers' dissemination of market intelligence across departments. We specifically consider the possibility of a curvilinear, inverted U-shaped relationship, according to the following reasoning: the department's influence likely defines managers' perceptions of their personal influence within the organization. Starting from low influence levels, increases in the level of influence should reduce the psychological costs of communicating with managers of other departments and thus stimulate intelligence dissemination. However, and more importantly, past a certain point, more influential marketing managers may become excessively self-focused, such that they reduce their intelligence dissemination. We empirically test this hypothesized relationship with data from three studies: a large cross-sectional survey among marketing and finance/controlling managers (Study 1) and two experimental studies (Studies 2a and 2b)

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with 711 managers in total. The data consistently provide support for a curvilinear, inverted U-shaped effect and offer a refinement of prior research that has assumed a simple, linear, positive relationship.

In the next section, we provide the conceptual basis for our hypothesis of an inverted U-shaped effect of marketing influence on managers' dissemination of market intelligence. We then elaborate on our methodology and report the findings of the three studies demonstrating the hypothesized effect and its consequences for the organization. Finally, we discuss the implications and limitations of our research.

2. Conceptual background

Research in various management disciplines—including applied psychology (e.g., Mesmer-Magnus & DeChurch, 2009), communication (Burgess, 2005), human resource management (Foss, Minbaeva, Pedersen, & Reinholt, 2009), organization and management science (Darr, Argote, & Epple, 1995), and marketing and sales research (Ahearne, Lam, Hayati, & Kraus, 2013; Le Bon & Merunka, 2006)—has addressed various antecedents of knowledge dissemination in an organization. In addition to organizational variables, such as its structure, functional rivalry, or interdepartmental collaboration (e.g., Homburg, Jensen, & Krohmer, 2008), extant literature has emphasized the individual organization member, who must choose to disseminate his or her knowledge to others (Le Bon & Merunka, 2006).

To extend this literature stream, we focus on marketing managers' dissemination of a particular form of knowledge throughout the organization, namely, *market intelligence*, which refers to formal and informal knowledge about current and future customer needs and competitor activities (Maltz & Kohli, 1996). Disseminating market intelligence critically improves the effectiveness and efficiency of decision processes at various functional boundaries, including marketing–finance (e.g., Ganesan, 2012) and marketing–R&D (e.g., DeLuca & Atuahene-Gima, 2007) interfaces. Furthermore, market intelligence dissemination enhances the organization's financial performance (Jaworski & Kohli, 1993). Accordingly, we concentrate on *marketing managers* who choose whether to disseminate market intelligence to managers of other departments, because prior market orientation research emphasizes marketing managers' knowledge sharing as critical for aligning the organization with the voice of the market (e.g., Luo, Slotegraaf, & Pan, 2006).

In turn, we investigate the influence of the marketing function within an organization and its effect on marketing managers' dissemination of their market intelligence. *Marketing's influence* refers to the perceived contribution of the marketing department to the success of an organization, *relative* to other departments (Moorman & Rust, 1999; see also Homburg, Workman, & Krohmer, 1999). Verhoef and Leeflang (2009) offer some empirical evidence of a simple, positive, linear relationship between marketing influence and market orientation which includes sharing knowledge about customers and competitors.

However, we anticipate that the benefits of marketing influence may be limited, such that we propose a curvilinear relationship to describe managers' dissemination of their market intelligence across departments. According to self-categorization research (Hogg & Terry, 2000), people internalize the characteristics of the groups to which they belong. Therefore, marketing managers should internalize the (relative) influence of their department to define their own personal influence in the organization, relative to that of members of other departments. Managers working in low influence departments then should define themselves as having little influence on organizational decisions, whereas managers of departments with high influence likely regard themselves as highly influential in the organization.

The extent of this personal influence then should affect managers' dissemination of market intelligence across departments. Specifically, prior research cites several behavioral consequences stemming from individual perceptions of their influence. For example, when dealing with others who appear to have greater influence, people with low influence tend to be reactive rather than proactive, behave passively, are less

likely to make the first move, and volunteer little information (Galinsky, Gruenfeld, & Magee, 2003). Such findings imply that low influence persons experience psychological costs when communicating with high influence others. Therefore, we propose that marketing managers who perceive themselves as lacking in influence are less likely to communicate proactively with managers of other departments and disseminate their market intelligence to them. With increasing influence however, the psychological costs of communication dissipate, which should increase the managers' dissemination. This proposition is in line with Verhoef and Leeflang's (2009) argument that marketing influence enhances the market orientation.

However, we posit detrimental effects on intelligence dissemination when managers reach high influence levels. People with high influence often become self-focused (Rucker, Dubois, & Galinsky, 2011), consider the perspectives of others less (Galinsky, Magee, Inesi, & Gruenfeld, 2006), reject the advice of others, and perceive themselves as more important (See, Morrison, Rothman, & Soll, 2011; Tost, Gino, & Larrick, 2012). Notable evidence also suggests that obtaining more influence motivates people to withhold essential knowledge from others. Maner and Mead (2010) show that high influence group members seek to maintain their current position in the group, so they give themselves the best clues for solving a task while withholding those clues from others. Following this reasoning, we propose that managers become less likely to disseminate their market intelligence when they perceive their own greater influence within an organization. The combination of the likely positive effects of marketing's influence and the limitations created by these negative mechanisms suggests an inverted U-shaped relationship between marketing influence and managers' dissemination of market intelligence to managers of other departments. Formally, we hypothesize:

H1. The influence of the marketing department has a curvilinear, inverted U-shaped effect on marketing managers' dissemination of market intelligence to managers of other departments.

We test this prediction in a series of three studies with 711 experienced managers. Specifically, Study 1 demonstrates the proposed curvilinear relationship between marketing influence and managers' market intelligence dissemination, using a cross-sectional survey of marketing and finance/controlling managers. Study 2a extends these findings with an experimental manipulation of marketing influence in a marketing–finance context, using formal market intelligence (written market report). Study 2b replicates and validates this effect in a marketing–R&D context, using informal market intelligence (expert information provided at a conference).

3. Survey findings (Study 1)

With Study 1, we investigated the relationship between marketing's influence within an organization and marketing managers' dissemination of market intelligence to managers of other departments. We sought to test this relationship from the perspectives of both senders (i.e., marketing managers) and receivers (i.e., non-marketing managers) of market intelligence, so we invited experienced marketing and finance/controlling managers, working for firms in three European countries (Austria, Germany, and Switzerland) across various industries, to complete a survey about marketing's role within their organization. In addition, we sought to examine the relevance of managers' dissemination of market intelligence throughout the organization and explore whether marketing influence affects financial performance, through marketing managers' dissemination of market intelligence.

3.1. Method

We recruited 194 marketing managers (mean age: 43.8 years; 77% male) from three sources to participate in our online surveys: an alumni organization of a European management school, a European marketing

Table 1 Descriptive statistics and correlations (Study 1).

	M (SD)					Correlations (full sample)	
	(a) Full sample $(N = 472)$	(b) Marketing sample $(N = 194)$	(c) Finance and controlling sample ($N = 278$)	t-value for mean difference between (b) and (c)	(I)	(II)	
Marketing's influence within organization (I)	3.71 (1.49)	3.70 (1.45)	3.72 (1.51)	15 (p > .88)			
Marketing managers' dissemination of market intelligence to non-marketing managers (II)	4.42 (1.52)	4.89 (1.36)	4.09 (1.53)	5.81 (<i>p</i> < .001)	.11 (p < .02)		
Financial performance of organization (III)	4.68 (.98)	4.73 (.92)	4.64 (1.03)	.91 (p > .37)	.07 (p > .16)	.17 (p < .001)	

association, and a European management association. In addition, we received survey responses from 278 finance and controlling managers (mean age: 41.5 years; 76% male) from a European management association. All participants were informed that the study would address the role of the marketing department within their organization.

The survey of both management samples included questions about marketing's influence within the organization, marketing managers' dissemination of market intelligence to managers of other departments, and the financial performance of the organization. To measure marketing's influence, we used four perceptual items from Moorman and Rust (1999). We formed an influence index by averaging the items ($\alpha=.92$). To assess managers' dissemination of intelligence, we used three items from Kumar, Jones, Venkatesan, and Leone (2011), averaged to form a market intelligence dissemination index ($\alpha=.68$). The financial performance measure included four items from Luo et al. (2006), averaged to form a performance index ($\alpha=.68$). Finally, managers indicated the industry and country of their organization, as well as their age, gender, and work experience in their current organization.

3.2. Results

The preliminary analyses indicated that managers had sufficient work experience in their organization to evaluate the influence of its marketing function. In particular, 83% of the managers worked for their current employer for more than 3 years. The descriptive statistics and correlations between the focal variables (marketing's influence, market intelligence dissemination, and financial performance) are in Table 1.

We tested our hypothesis by regressing the market intelligence dissemination index on the influence index and its squared term. We mean-centered the influence index before creating the squared term to facilitate the interpretation of our findings (Cohen, Cohen, West, & Aiken, 2003), because the linear term captures the relationship between marketing's influence and market intelligence dissemination at the mean influence level. As we show in Table 2 (regression 1), we uncovered a significant, positive effect of the linear term and a significant, negative effect of the squared term on market intelligence dissemination. The negative coefficient of the squared term supported the proposed curvilinear relationship. Moreover, the positive coefficient of the linear term implied that marketing managers felt encouraged to disseminate

their market intelligence at the mean influence level, in line with prior research (Verhoef & Leeflang, 2009).

To test for potential differences between marketing and non-marketing respondents, we estimated a second regression equation that included a "Manager" dummy variable. The dummy variable has the value 0 (1) if the respondent was a marketing (non-marketing) respondent. In Table 2 (regression 2), we found only a negative and significant effect of the dummy variable, such that non-marketing managers indicated a lower mean value of market intelligence dissemination by marketing managers in their organization. The interactions of the dummy variable with the linear influence term or the squared term were not significant, suggesting that the relationship between marketing's influence and market intelligence dissemination produced a similar shape among both marketing and non-marketing managers, with only a shift of the intercept indicating any difference (see Fig. 1).

To examine the relevance of marketing managers' dissemination of market intelligence in more detail, we tested whether intelligence dissemination fully mediated the effect of marketing's influence on the financial performance of the organization. Due to the (overall) nonlinear nature of our model, we used the concept of the instantaneous indirect effect recently introduced by Hayes and Preacher (2010) and calculated the indirect effect as a function of the influence level. In doing so, we considered the inverted U-shaped effect of marketing's influence on intelligence dissemination (path *a*) and we assumed a linear (positive)

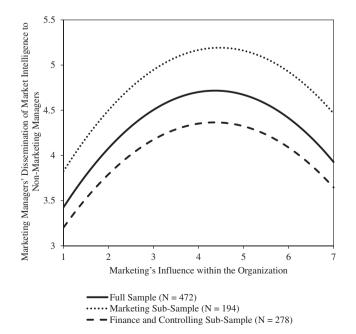


Fig. 1. Regression plots (Study 1).

 $^{^3}$ In the marketing sample, we also assessed the following organization-related variables: number of employees in the organization, number of marketing employees, B2B vs. B2C orientation, goods vs. service orientation, technological intensity, and competitive intensity. Including these variables in the analyses did not affect the results, and we found no significant effects for any of the variables (p > .10). See Appendix A for the measures.

⁴ A post-test with 54 marketing managers (mean age: 44.5 years; 81.5% male), recruited from the same pool of subjects as those who participated in the main study, indicated a high correlation (r=.67, p<.001) between the agreement-based market intelligence dissemination scale (1 = "strongly disagree" to 7 = "strongly agree"; $\alpha=.79$) and the same items on a scale anchored by 1 = "never" and 7 = "always" ($\alpha=.85$). Respondents in Study 1 thus interpreted the agreement scale as a range from low (never) to high (always) intelligence dissemination. We thank an anonymous reviewer for this insight.

Table 2Results of regression analysis (Study 1).

	Marketing managers' dissemination of market intelligence to non-marketing managers					
	Regression 1			Regression 2		
	beta	t	p	beta	t	р
Intercept	4.67	47.78	.000	5.13	35.05	.000
Marketing's influence within organization	.15	3.13	.002	.17	2.33	.020
(Marketing's influence within organization) ²	11	-3.61	.000	11	-2.32	.021
Manager				80	-4.19	.000
Manager × Marketing's influence within organization				04	41	.685
Manager \times (Marketing's influence within organization) ²				.01	.17	.869

Note: Unstandardized betas are shown; marketing's influence within organization is mean-centered; manager is a dummy coded variable (0 if marketing manager; 1 if non-marketing manager).

effect of dissemination on financial performance (path b).⁵ As suggested by Hayes and Preacher (2010), we elaborated the instantaneous indirect effect at the mean (moderate influence), one standard deviation below the mean (low influence), and one standard deviation above the mean (high influence) of marketing's influence. Consistent with our expectations, analyses based on 5000 bootstrap resamples from the full sample (N = 472) confirmed a significant positive indirect effect for low and moderate influence levels (low level: $a \times b = .49 \times .11 = .05$; 95% confidence interval CI = [.02, .10]; moderate level: $a \times b = .15 \times .11 = .02$; 95% CI = [.01, .04]). With high influence though, we found a significant negative indirect effect ($a \times b = -.19 \times .11 = -.02$; 95% CI = [-.05, -.011). The direct effect of marketing's influence on financial performance was not significant, indicating indirect-only mediation (Zhao, Lynch, & Chen, 2010). These results are in line with Verhoef and Leeflang (2009) who found support that market orientation fully mediates the relationship between marketing's influence and business performance.

3.3. Discussion

Study 1 provides initial support for the inverted U-shaped relationship between marketing influence and marketing managers' dissemination of their market intelligence throughout the organization. After a certain moderate influence level is exceeded, managers become less likely to share their knowledge about customers and competitors with managers of other departments. Moreover, this study supports an indirect effect between marketing influence and the financial performance of an organization through marketing managers' market intelligence dissemination. That is, growing influence increases the financial performance through managers' dissemination of their market intelligence at low and moderate influence levels, whereas an opposite effect was found at high influence.

These findings offer initial evidence of the hypothesized effect, based on correlational observations. Yet without random assignments and experimental controls, we cannot assert confidently that marketing influence drives managers' dissemination of market intelligence, rather than the other way around, such that marketing influence within an organization might stem from its market orientation (Verhoef & Leeflang, 2009). To corroborate our findings, we explicitly manipulated the influence of marketing departments in Studies 2a and 2b.

4. Experimental findings (Studies 2a and 2b)

4.1. Study 2a: marketing-finance context and formal market intelligence

In addition to experimentally manipulating the influence of the marketing department within an organization, in Study 2a we sought to validate the findings of Study 1 in the specific context of the important marketing–finance interface. Organizations must ensure appropriate

information exchanges between these departments to achieve effective and efficient decision making (e.g., Ganesan, 2012). Moreover, we investigated the dissemination of formal market intelligence in this study (Maltz & Kohli, 1996).

4.1.1. Method

One hundred twenty-two marketing managers from the alumni pool of a leading European business school completed a study about strategic decision making under uncertainty. Seventeen participants suspected the study purpose and thus were excluded, leaving a final sample of 105 marketing managers (mean age: 44.9 years; 82% male).

Managers were first asked to take the perspective of the head of marketing of a hypothetical manufacturer of electric engines, ElecDrive. They received general information about the manufacturer, such as the number of (firm and marketing) employees, revenue, profit, market share, and the organizational structure. Next, to indicate their possession of formal market intelligence, the scenario reported that, in their role as head of marketing, they had received a recent market report for the electric engine industry that included important knowledge about increasing competition, mergers, current and future customer needs, and a cut in government subsidies. For example, the report included forecasts that sales of hybrid and electric cars would triple over the next 10 years and that the government planned to cut subsidies for electric engines that could cause a 25% increase in the price of ElecDrive's products and increase competition in the electric engine market. This formal market intelligence was assumed to be of high importance for ElecDrive's finance managers.

Next, we manipulated marketing's influence within ElecDrive. Managers were randomly assigned to a high, moderate, or low influence condition. Those in the high (low) influence condition were told that the marketing department had a leading (minor) position and that its relative influence within ElecDrive, compared with the finance department, was 90:10 (10:90). Managers in the moderate influence condition were told that the marketing department played an important role, and its influence within ElecDrive was 50:50, relative to the finance department. Thus Study 2a used a single-factor, between-subjects design and manipulated marketing's influence within the organization (high vs. moderate vs. low).

The managers then completed a questionnaire. For the dependent variable, managers' dissemination of market intelligence, we used a single probability measure: they indicated how likely they were to disseminate the provided market intelligence to a finance manager within ElecDrive on a scale ranging from 0 to 100. Prior research suggests that single probabilities can generate more accurate assessments than discrete measures of intended behavior (Granbois & Summers, 1975). To check the influence manipulation, we used the four-item measure of the influence of the marketing department from Study 1 (α = .94).

⁵ We also tested for non-linear effects of dissemination on financial performance but these turned out to be not significant.

⁶ We included the same three-item scale from Study 1 and obtained the same pattern of results. The single probability item and the three-item scale also correlated significantly (r = .48; p < .001).

Finally, the respondents indicated their age, gender, and current job title, before completing an open-ended suspicion probe question.⁷

4.1.2. Results

We tested whether our manipulation of marketing influence was successful. In line with our assumptions, an analysis of variance (ANOVA) with the perceived influence of the marketing department within ElecDrive as the dependent variable and the experimental influence condition as the independent variable revealed a significant effect (F(2,102)=73.25, p<.001). Planned contrasts showed that managers in the high influence condition ($M_{\rm HighInfluence}=5.12, SD=.94$) indicated significantly more influence of the marketing department than those in the moderate influence condition ($M_{\rm ModerateInfluence}=4.21, SD=1.13; F(1,102)=81.01, p<.001$), and managers in the moderate influence condition reported significantly more influence than those in the low influence condition ($M_{\rm LowInfluence}=2.10, SD=.95; F(1,102)=131.45, p<.001$).

To test for the curvilinear effect, we conducted another ANOVA with the probability measure of market intelligence dissemination as the dependent variable and the manipulation of marketing influence as the independent variable. The results revealed a significant effect of the influence manipulation (F(2, 102) = 3.95, p < .02). Managers in the moderate influence condition ($M_{\text{ModerateInfluence}} = 85.1$, SD = 18.2) were more likely to disseminate market intelligence than those in the low influence condition ($M_{\text{LowInfluence}} = 75.7$, SD = 25.9; F(1, 102) =3.38, p < .07), though this effect was only marginally significant. Managers in the high influence condition were significantly less likely to disseminate market intelligence than those in the moderate influence condition ($M_{\text{HighInfluence}} = 70.0$, SD = 23.9; F(1, 102) = 7.50, p < .01). We found no significant differences for the low and high influence conditions (F(1, 102) = 1.00, p > .32). This pattern of data suggests that influence causes the curvilinear effect on marketing managers' dissemination of market intelligence to managers of other departments.

4.1.3. Discussion

Study 2a replicates the findings of Study 1 at the marketing–finance boundary: Managers of a marketing department with moderate influence are more likely to disseminate market intelligence than managers of high or low influence departments. Our experimental manipulation of the influence of the marketing department confirmed the proposed cause (i.e., marketing influence) \rightarrow effect (i.e., dissemination of market intelligence) relationship.

4.2. Study 2b: marketing-R&D context and informal market intelligence

In Study 2b, we aimed to replicate and generalize the inverted U-shaped effect of marketing's influence at another organizational interface and confirm its validity with another form of market intelligence. Specifically, we investigated the marketing–R&D interface, because effective intelligence dissemination from marketing managers to R&D managers is important for successful new product development, for example (e.g., Atuahene-Gima & Evangelista, 2000; Leenders & Wierenga, 2008). To confirm the validity of the curvilinear effect, we also used informal market intelligence in Study 2b.

4.2.1. Method

We recruited 134 marketing managers (mean age: 45.1 years; 75% male) who were members of a European marketing association to participate in a case study about the market success of a new

information technology. Participants received information about a hypothetical international manufacturer of smartphones and tablet devices, the DigiGroup (e.g., number of employees, revenues, organizational structure). The instructions asked them to take the perspective of DigiGroup's marketing manager.

As in Study 2a, managers were randomly assigned to one of three marketing influence conditions: those in the low (high) influence condition were told that the marketing department had a weak (strong) role within DigiGroup, compared with the R&D department. Managers in the moderate influence condition read that the role of the marketing department was similarly important to that of R&D. Therefore, Study 2b also used a single-factor, between-subjects design, with marketing's influence as the manipulated factor.⁸

Next, all participants received informal market intelligence. They were asked to imagine that, in their role as DigiGroup's marketing manager, they attended an international market research conference about the future of the digital device industry. The major new insight discussed at the conference was a growing customer need for products with 3D technology. Leading marketing and R&D experts had presented promising forecasts of customers' acceptance of products with 3D technology, and competitors had already begun research to develop a 3D smartphone. This market intelligence was assumed to be of high importance to R&D managers within DigiGroup.

All managers then answered a questionnaire that included distraction questions to prevent them from predicting the study purpose (e.g., personal preferences for electronic devices with 3D technology), as well as items related to the dependent variable and a manipulation check. To assess the dependent variable managers' dissemination of informal market intelligence to an R&D manager, we used the probability measure from Study 2a. As a manipulation check, managers answered the four-item scale of marketing's influence from Studies 1 and 2a ($\alpha=.94$). Finally, they indicated their age, gender, and current job title and completed the suspicion probe question.

4.2.2. Results

None of the participants suspected the true study purpose. The manipulation of marketing influence was successful: the experimental condition had a significant effect on the reported influence within DigiGroup (F(2, 131) = 44.53, p < .001). Managers in the moderate influence condition ($M_{\text{ModerateInfluence}} = 3.70$, SD = 1.46) stated significantly more influence than those in the low influence condition ($M_{\text{LowInfluence}} = 2.43$, SD = 1.15; F(1, 131) = 20.99, p < .001) but less than those in the high influence condition ($M_{\text{HighInfluence}} = 4.91$, SD = 1.16; F(1, 131) = 20.89, p < .001). Controlling for age, gender, and current job title did not affect the results.

To test our main hypothesis, we conducted an ANOVA with the probability of market intelligence dissemination as the dependent variable and the experimental condition as the independent factor. This analysis revealed a significant effect (F(2, 131) = 3.07, p < .04). Planned contrasts indicated that participants in the moderate influence condition ($M_{\text{ModerateInfluence}} = 82.3, SD = 18.6$) were more likely to disseminate their market intelligence than those in the low ($M_{\text{LowInfluence}} = 69.3, SD = 27.1; F(1, 131) = 6.03, p < .02$) or high ($M_{\text{HighInfluence}} = 72.7, SD = 25.0, F(1, 131) = 3.64, p < .06$) influence conditions. The difference between the latter two conditions was not significant (F(1, 131) = .47, p > .51). These findings again were consistent with our

⁶ We included the same three-item scale from Study 1 and obtained the same pattern of results. The single probability item and the three-item scale also correlated significantly (r = .48; p < .001).

We included confounding checks for participants' cognitive load, interest in the market report, personal market knowledge, and ability to imagine the context (see Appendix A for all measures). No significant effects arose for any of these variables.

⁸ We provided the managers with market intelligence before we manipulated marketing's influence in Study 2a; we opted for a reversed order in Study 2b to help generalize our findings and eliminate any potential confounding effect caused by the order of presentation in Study 2a.

⁹ We also included the following confounding checks: cognitive load, perceived relevance of market intelligence, identification with DigiGroup's marketing function, identification with the organization DigiGroup, extent to which participants were able to imagine the context, and the general attitude toward R&D activities (see Appendix A). No significant effects arose for any of these variables.

hypothesis of an inverted U-shaped effect of marketing's influence on managers' dissemination of market intelligence.

4.2.3. Discussion

Study 2b provides additional evidence that managers in a marketing department with moderate influence within the organization are more likely to disseminate market intelligence than are those in low and high influence departments. This effect is robust against different types of market intelligence (i.e., formal and informal) and departmental interfaces.

5. General discussion

Despite the importance of disseminating market intelligence across the organization, empirical studies on this topic are scarce. The present research attempts to fill this gap and addresses the need to "focus on understanding factors that affect...senders to disseminate market intelligence" (Maltz & Kohli, 1996, p. 58). In three studies with 711 managers, we have investigated how the influence of the marketing department within an organization affects marketing managers' dissemination of knowledge about customers and competitors across departmental boundaries.

Consistently across the studies, we find support for a curvilinear, inverted U-shaped relationship: marketing managers' dissemination of market intelligence first increases with the greater influence of the marketing department, but after a moderate level, this dissemination decreases with more influence. We obtained this pattern of results using a cross-sectional survey of marketing and finance/controlling managers in general interfaces (Study 1), as well as experiments with experienced marketing managers at the marketing-finance interface using formal market intelligence (Study 2a) and at the marketing-R&D interface using informal market intelligence (Study 2b).

These findings extend literature on marketing's influence and market intelligence dissemination. To the best of our knowledge, this study is the first to predict and confirm a non-linear relationship between the variables. Only Verhoef and Leeflang (2009) have included both marketing influence and market orientation in one framework; they propose a positive linear relationship but also call for deeper analyses of this link. We respond to this call and find support for a curvilinear relationship, offering a new perspective that adds nuance to predictions about the benefits of a strong marketing department (see Drechsler, Natter, & Leeflang, 2013). Moreover, in contrast with prior research that has "explored marketing intelligence largely as an organizational level construct" (Hughes, Le Bon, & Rapp, 2013, p. 92), we concentrate on individual marketing managers, with the realization that a manager's failure to disseminate market intelligence can hamper decision processes and impair the overall organization's financial performance (cf. Le Meunier-FitzHugh & Piercy, 2006). The results of our study affirm that the dissemination of market intelligence is important for the financial success of the entire organization.

Our finding also has clear practical implications. Shared knowledge about customer needs and competitor activities relates closely to the effectiveness and efficiency of decision making and financial performance. By revealing that low and high influence levels for the marketing department weaken the dissemination of such knowledge, this study recommends that top executives manage their organizations' cultures carefully to ensure well-balanced influences of the marketing department in relation to other corporate functions. An imbalance in either direction can decrease essential interactions across departments and thereby hinder firm performance, as our results show.

The reasons why managers withhold market intelligence from other departments can be manifold. For instance, departments compete for scarce resources such as budget and influence on corporate decisions; they can have different views about the organization's strategic orientation and they strive to affect corporate decisions in their desired direction (Frankwick, Ward, Hutt, & Reingen, 1994). For the marketing

department, market intelligence can be the key advantage to outperform other departments in competing for scarce resources (Luo et al., 2006). Thus, firm management could think of creating incentives for managers to share important knowledge proactively and avoid using it strategically to achieve their self-interests. To prevent the pursuit of self-interests, executives should implement an incentive compatibility system in the organization that aligns departmental (i.e., influence) and organizational (i.e., intelligence dissemination across functional boundaries) goals and encourages departments to share common organizational objectives. Further, recent research implies that feelings of cooperation (vs. competition) across functional boundaries help reduce strategic self-focused behavior and can increase managers' motivation to share information with others (Tost et al., 2012; Tsai, 2002). Executives should therefore implement a cooperative culture in the organization and, in particular, in the marketing department to motivate its managers to disseminate market intelligence throughout the firm.

Several limitations of our studies provide avenues for further research. In particular, based on self-categorization and individual influence literature, we argued that the marketing function's influence in an organization shapes marketing managers' perception of individual influence which affects their dissemination behavior, as an underlying process. However, additional studies could shed more light on details of the underlying mechanisms and investigate potential boundary conditions of this effect. It would be interesting to study the role of different kinds of individual motivations to disseminate information (or not) and what an organization can do to reinforce such motivations. Similarly, further work might examine the effects of managers' individual- and job-specific characteristics (e.g., work experience, hierarchical position) and their influence on knowledge sharing as well as firm specific characteristics that exhibit both high marketing influence and high intelligence dissemination.

Furthermore, we focused on marketing managers' dissemination of market intelligence, because of their critical role in bringing the voice of the market to the forefront of organizational decisions. We anticipate that managers of other departments may be similarly susceptible to withholding information at low and high influence levels, but further research should directly address this issue.

Another concern that merits discussion is the intercultural generalizability of our findings. Our data come from managers with a similar cultural background. Noting the differences in departmental influences and communication behavior as a function of culture, we recommend that researchers examine the effect of marketing influence on managers' dissemination of knowledge in intercultural settings.

In exploring managers' dissemination of intelligence, we did not examine how or when managers of other departments use this knowledge; other research focused on the receivers of market intelligence (e.g., Moorman, Zaltman, & Deshpande, 1992). Research that combines both these perspectives in a dyadic study could provide valuable insights into both senders' dissemination and receivers' uses of market intelligence. Along similar lines, we assumed (and found) a positive effect of marketing managers' dissemination of market intelligence on the organization's financial performance. Further work might explore the potential boundary conditions of this relationship, such as the effects of the organization's market position.

This study investigates an important variable that affects marketing managers' dissemination of their knowledge about customers and competitors to other departments. Our findings reveal that managers of a marketing department with moderate influence in the organization are likely to share their market intelligence, whereas low and high influence levels limit this dissemination, which ultimately impairs the financial performance of the organization. We hope that our research sparks continued studies about when and how marketing influence within the organization might backfire.

Appendix A. Measures used in empirical studies

Measure	Scale	Items		
Marketing influence within the firm ^{1,2a,2b} (Moorman & Rust, 1999)	7-point scale (1 = "strongly disagree," 7 = "strongly agree")	The functions performed by marketing are generally considered to be more critical than other functions.		
		Top management considers marketing to be more important than other functions.		
		Marketing tends to dominate other functions in the affairs of the firm.		
		Marketing is generally regarded as being more influential than		
		other functions.		
Marketing manager's dissemination of market intelligence ^{1,2a}	7-point scale (1 = "strongly disagree," 7 = "strongly agree")	I (marketing employees) regularly organize interdepartmental meetings to ensure that information regarding customer needs and market trends		
(Kumar et al., 2011)	/ = strongly agree)	are communicated to other departments within the firm.		
(Marian et all, 2011)		I (marketing employees) invest much time to discuss future customer		
		needs and market developments with other departments within the firm.		
		When something important happens in regard to customers and markets,		
		I (marketing employees) promptly disseminate information to other departments within the firm.		
Financial firm performance ¹	7-point scale ($1 =$ "much worse,"	Based on the targets set by your firm, please rate the performance		
(Luo et al., 2006)	7 = "much better")	in terms of		
		 Market share growth 		
		- Sales growth		
		 Reducing selling costs Return on investment 		
Job tenure ¹		For how long have you been working for your current employer?		
job tenare		(1) less than 1 year; (2) 1–3 years; (3) more than 3 years		
Goods vs. services ¹	10-point scale ($1 = \text{``goods,''}$	Please indicate the percentage of your turnover that arises from		
(Verhoef & Leeflang, 2009)	10 = "services")	goods or service markets.		
B2B vs. B2C ¹ (Verhoef & Leeflang, 2009)	10-point scale (1 = "B2B", 10 = "B2C")	Please indicate the percentage of your turnover that arises from B2B or B2C markets.		
Technological intensity ¹ (Jaworski & Kohli, 1993)	10-point scale (1 = "strongly disagree," 10 = "strongly agree")	Our industry is characterized by fast technological change.		
Competitive intensity ¹	10-point scale (1 = "strongly disagree,"	Our industry is characterized by high competitive intensity.		
(Jaworski & Kohli, 1993)	10 = "strongly agree")			
Interest in market intelligence ^{2a}	7-point scale (1 = "not at all interesting," 7 = "very interesting")	How interesting was the market report to you?		
Personal knowledge ^{2a}	7-point scale (1 = "none," 7 = "very high")	How would you assess your personal knowledge about the market for electric engines?		
Cognitive load ^{2a,2b}	7-point scale (1 = "strongly disagree," 7 = "strongly agree")	Participating in this study was mentally strenuous.		
Imagining context ^{2a,2b}	7-point scale (1 = "strongly disagree,"	It was very easy for me to put myself into the role of the marketing		
	7 = "strongly agree")	manager of the firm ElecDrive (DigiGroup).		
Relevance of market intelligence2b	7-point scale (1 = "strongly disagree,"	In my opinion, the introduction of the 3D technology		
	7 = "strongly agree")	(e.g., a 3D smartphone) is likely to lead to significant changes in our target market.		
Identification with firm	7-point scale (1 = "strongly disagree,"	During the case study		
(marketing) function ^{2b}	7 = "strongly agree")	I strongly identified with the firm DigiGroup (the marketing		
(Fisher, Maltz, & Jaworski, 1997)		function of DigiGroup).		
		it was important to me to be part of DigiGroup (the marketing function of DigiGroup).		
		first and foremost, I thought of myself as a part of DigiGroup		
		(the marketing function of DigiGroup).		
Attitude toward R&D ^{2b}	7-point scale ($1 = \text{"strongly disagree,"}$	I have a positive attitude toward the R&D function.		
	7 = "strongly agree")	•		

Note: Superscripts indicate the study in which measure was assessed.

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