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Revisiting the relationship between marketing capabilities and firm performance: The moderating role of market orientation, marketing strategy and organisational power

Luca Cacciolatti ^a, Soo Hee Lee ^{b,*}

^a Westminster Business School, University of Westminster, 35 Marylebone Road, London NW1 5LS, United Kingdom

^b Kent Business School, University of Kent, Canterbury, Kent CT2 7PE, United Kingdom

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ABSTRACT

This study extends original insights of resource-advantage theory (Hunt & Morgan, 1995) to a specific analysis of the moderators of the capabilities–performance relationship such as market orientation, marketing strategy and organisational power. Using established measures and a representative sample of UK firms drawn from Verhoef and Leeflang's data (2009), our study tests new hypotheses to explain how different types of marketing capabilities contribute to firm performance. The application of resource-advantage theory advances theorising on both marketing and organisational antecedents of firm performance and the causal mechanisms by which competitive advantage is generated.

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1. Introduction

Marketing plays a significant role in determining the strategic orientation and performance outcomes of the firm (Rust, Ambler, Carpenter, Kumar, & Srivastava, 2004; Srivastava & Reibstein, 2005). Capabilities in acquiring and transforming tangible and intangible resources are considered as an important determinant of value creation and competitive advantage (Hunt & Morgan, 1995; Hunt & Morgan, 2005; Morgan, 2012; Wang, Hu, & Hu, 2013; Kozlenkova, Samaha, & Palmatier, 2014). In increasingly fragmented and dynamic markets (Cavusgil, Seggie, & Talay, 2007), dynamic capabilities of utilising market knowledge become crucial to technological innovation (Bruni & Verona, 2009). Thus, dynamic marketing capabilities are defined in terms of absorptive capacity and knowledge management (Barrales-Molina, Martínez-López, & Gázquez-Abad, 2014). Given the continuing debate on marketing capabilities and performance (Rust et al., 2004; Srivastava & Reibstein, 2005; Vorhies & Morgan, 2005; Webster, Malter, & Ganesan, 2005), a more fine-grained research is called for on both marketing and organisational antecedents of firm performance and the causal mechanisms by which competitive advantage is generated.

This paper provides three main contributions to marketing research. The first contribution lies in explaining the conditions under which marketing and the marketing department contribute to competitive advantage. While the research on dynamic marketing capabilities is fostered by the advancement of relationship marketing and service-dominant logic, paradoxically practitioners are experiencing a loss of relevance and influence of the marketing department within the firm (Verhoef & Leeflang, 2009; Verhoef et al., 2011), with marketing departments being in jeopardy (Webster, 1992; Homburg, Workman, & Krohmer, 1999; Webster et al., 2005; O'Sullivan & Abela, 2007) and chief marketing officers (CMOs) fearing for job loss (Lee, 2012). Therefore, the research on marketing capabilities and performance shows an apparent tension between a paradigm shift towards a service-dominant logic and the loss of importance of the marketing department within the firm. The premise of this paper is that the tension can be reconciled by reconsidering the general propositions of resource-advantage (hereafter R-A) theory developed by Hunt and Morgan (1995, 1996, 1997) and Hunt (1997a, 1997b).

The second contribution consists in the creation of a new analytical framework that extend R-A theory by making use of Verhoef and Leeflang's (2009) work (hereafter VL). Although VL's model empirically investigating the changing role of the marketing department within firms is not underlined by any specific marketing theory, their work includes comprehensive indicators to measure intangible resources

* Corresponding author.

E-mail addresses: l.cacciolatti@westminster.ac.uk (L. Cacciolatti), s.h.lee@kent.ac.uk (S.H. Lee).

and marketing capabilities. Utilising these indicators, we focus on the moderation of the capabilities–performance relationship by market orientation, strategic orientation and organisational power. Such logic of analysis is implicit in the original formulation of R-A theory but has never been articulated explicitly and tested empirically.

The third contribution consists in using simple but strong established measures to test new hypotheses in line with R-A theory. The adoption of VL's constructs allows us to operationalise R-A theory's key propositions. Although VL's indicators were originally developed to explain the loss of influence of the marketing department within the firm, these measures are instrumental to analysing intra-firm capabilities (Zott, 2003). In particular, VL's dual measures of performance reduces the potential bias from relying on a single measure of financial performance as Hunt and Morgan (1996, p. 109) distinguish 'the firm's own performance in a previous time-period' from 'that of a set of rival firms'.

Our paper is structured as follows: section two presents our analytical framework after a brief evaluation of R-A theory. Section three describes the methodology, providing a detailed report of the research design and methods of data collection and analysis. Section four reports the empirical results and section five discusses the implications of our findings. We close the paper with the conclusions in section six. The main hypotheses of the paper are developed from R-A theory and tested with a sample of UK firms. All our hypotheses are partially supported, thus validating our analytical framework focusing on the moderators of the capabilities–performance relationship.

2. Analytical framework

2.1. Evaluation of R-A theory

R-A theory, first proposed by Hunt and Morgan (1995), is an evolutionary economic theory of competition founded on a disequilibrium paradigm. According to Hunt (1997a, p. 425), 'R-A theory tries to propose a unifying framework explaining how 'neoclassical and evolutionary theories – rather than being mutually exclusive – can complement each other'. Dickson (1996), in spite of supporting the disequilibrium approach, criticises the lack of dynamism in R-A theory. This criticism has led to a reformulation of the endogenous process within R-A theory, focusing on the role of the learning organisation (Hunt, 1997a). However, based on a paradigm-level analysis, Deligönül and Çavuşgil (1997) challenge the epistemology of R-A theory and argue that it cannot be distinguished from the perfect competition paradigm. In a reply to these authors, Hunt and Morgan (1997) highlight the disequilibrium provoking behaviour of firms in the process of endogenous innovation in contrast to the neoclassical view of the economic system as equilibrium.

Hunt (1997a, p. 429) defines R-A theory as: 'an evolutionary, disequilibrium-provoking, process theory of competition, in which innovation and organisational learning are endogenous, firms and consumers have imperfect information, and in which entrepreneurship, institutions and public policy affect economic performance'. The particular advantage of R-A theory is its close applicability to marketing and its contributions to marketing theory. The three main tenets of R-A theory relevant to our study consists of: 1) the existence of heterogeneity in tastes and preferences amongst industries, as proposed by Chamberlin (1933) who also coined the term 'product differentiation'; 2) the view that competition is a 'process that focuses on marketplace positions of competitive advantage' (Porter, 1985; Hunt, 1997a, p. 425); and 3) the conceptualisation of resources as both tangible and intangible (Morgan & Hunt, 1999).

The heterogeneity of tastes and preferences affects the strategy of firms with respect to competitors. Therefore, differentiation is required for satisfying dynamically changing demand (Davicik & Sharma, 2015) by offering diverse value propositions to heterogeneous market

segments (Hunt, 1997a). Resources should be shifted in such a way to produce superior performance with respect to the objectives of the firm and with respect to the firm's competitive position (Hunt & Morgan, 1996). Morgan and Hunt (1999, p. 283) identify different types of resources generated in marketing relationships: 'financial, legal, physical, human, organisational, relational, and informational resources'.

Despite the plethora of research on marketing capabilities (Moorman & Slotegraaf, 1999; Vorhies & Morgan, 2005; Bruni & Verona, 2009; Morgan, Vorhies, & Mason, 2009; Day, 2011), there is little agreement on what to consider as marketing capabilities and how to measure them. Fundamentally, the research on marketing capabilities can be classified into two types: A) the ability to engage with advertising, pricing, product characteristics, distribution, communication, selling, planning and implement plans (Fahy et al., 2000; Morgan et al., 2009; Murray, Gao, & Kotabe, 2011; Smirnova, Naudé, Henneberg, Mouzas, & Kouchtch, 2011; Ngo & O'Cass, 2012); and B) accountability, the ability to connect with customer, innovativeness, collaboration and organisational power (Moorman & Rust, 1999; Rust et al., 2004; Verhoef et al., 2011).

2.2. Marketing capabilities and performance

Empirical research on the relationship between marketing capabilities and performance do not explicitly adopt R-A theory, whereas some studies draw on the resource-based view (RBV) (Barney, 1991, 2001; Penrose, 1959; Wernerfelt, 1984), as reported in Table 1. Although acknowledging 'the role of marketing specific resources such as brands and customer and distribution relationships in gaining and sustaining competitive advantage', RBV is limited in explaining the dynamic processes of resource transformation and value creation for customers through managerial guidance (Srivastava, Fahey, & Christensen, 2001:778).

On the other hand, R-A theory suggests that intangible capabilities 'could potentially enable a firm to produce a market offering for some market segments more efficiently or effectively than one's competitors' (Hunt & Morgan, 1995:11). Two main types of marketing capabilities can be identified from previous studies. The first type of capabilities is concerned with tactical marketing objectives rather than strategic objectives or organisational dynamics. The second type of capabilities consists of intangible resources underpinning marketing performance, not just financial performance. We develop our hypotheses around the second type of capabilities and marketing performance, given R-A theory's emphasis on institutional factors and endogenous innovation process.

Previous studies have used mostly financial measures of performance, despite the advantages of using more comprehensive measures (Smirnova et al., 2011; Theodosiou, Kehagias, & Katsikea, 2012). Therefore, we justify the use of two different measures of performance: one with respect to the firm's internal objectives and the other with respect to competitors' performance. The dual nature of performance is recognised by Hunt and Morgan (1996, p. 109): 'the specific measure of financial performance might be profits, return on assets, or return on equity, whereas the specific referent might be the firm's own performance in a previous time-period or that of a set of rival firms (...)'. As most previous studies have included direct effect models, our baseline hypothesis also tests direct models for a comparative perspective. Thus, our baseline hypothesis is:

H_{DE}. Marketing capabilities have a positive and direct effect on firm performance. (Model 1).

H_{DEa}. Marketing capabilities have a positive and direct effect on firm performance with respect to the firm's objectives. (Model 2).

H_{DEb}. Marketing capabilities have a positive and direct effect on firm performance with respect to the firm's competitors. (Model 3).

Table 1
Empirical studies on the relationship between marketing capabilities and firm performance.

Author	Theoretical lens	Method	Context	Performance-related hypotheses	Notes
Moorman and Rust (1999))	Unstated theoretical frame Conceptual model built on 'looking broadly at the marketing literature' (p. 180)	Hierarchical regression analysis	USA consumer goods and industrial firms	Direct effect of x, on performance: ●Market orientation ^a ●Marketing capabilities ^a ○Accountability ○Customer connection ○Innovativeness ○Collaboration ●Org.tional power (influence) ^a	Direct effect models only MO as mediator between capabilities and org. power
Morgan et al. (2009))	Resource-based theory and dynamic capabilities theory	SEM	USA consumer goods and industrial firms	Direct effect of x, on performance: ●Market orientation ●Marketing capabilities ^a ○Pricing ○Product ○Distribution ○Communication ○Selling ○M. Planning ○MO × capabilities ^a	Objective versus subjective financial performance
Verhoef and Leeflang (2009))	Unstated theoretical frame Conceptual model built on market orientation literature and strategic management literature	SUR	Dutch consumer goods and industrial firms	Direct effect of x, on performance: ●Market orientation ^a ●Org.tional power (influence) ^a	Direct effect models only. MO as mediator between capabilities and org. Power.
Verhoef et al. (2011))	Unstated theoretical frame Conceptual model built on market orientation literature and strategic management literatur.	SUR	Consumer goods and industrial firms in Germany, Holland, UK, Israel, USA, Sweden, and Australia	Direct effect of x, on performance: ●Market orientation ^a ●Org.tional power (influence) ^a	Direct effect models only. MO as mediator between capabilities and org. power.
Smirnova et al. (2011))	Unstated theoretical frame Conceptual model built on market orientation literature and relational capabilities literature	SEM	Russian industrial firms	Direct effect of x, on performance: ●Customer orientation ●Competitor orientation ^a ●Inter-functional coordination ●Relational capabilities	Performance measured as growth, adaptability and customer satisfaction
Theodosiou et al. (2012))	Unstated theoretical frame Conceptual model built on market orientation literature and strategic management, with elements of RBV and contingency theory	SEM	Greek service sector, banks	Direct effect of x, on performance: ●Marketing capabilities ^a ○Advertising ○Public relations ○Sales promotions ○Environmental scanning ○M. Planning ○M. Plans implementation	Performance measures as sales, market share, profitability and customer satisfaction
Ngo and O'Cass (2012))	Resource-based theory Focus on innovation capabilities	SEM	Australian industrial and service firms	Direct effect of x, on performance: ●Marketing capabilities ^a ○Incorporation of needs ○Pricing ○Distribution ○Communication ○M. Planning ○M. Plans implementation	Performance split into customer related and innovation related

^a Supported hypothesis.

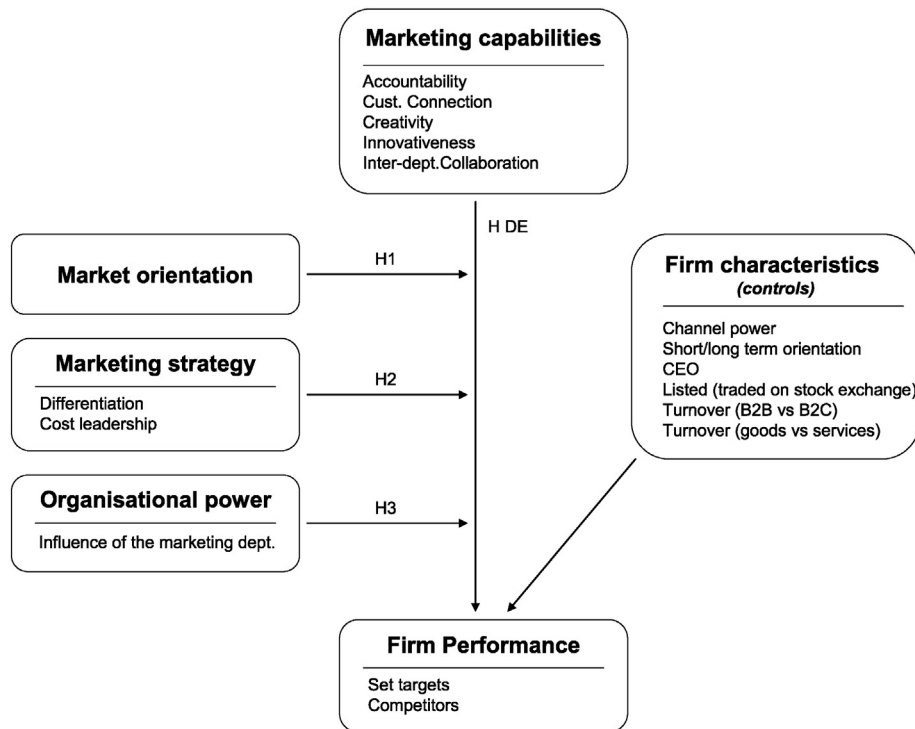


Fig. 1. Conceptual model showing the interaction of marketing capabilities with MO (H1), marketing strategy (H2) and organisational power (H3) and their effects on firm performance. HDE indicates the baseline hypothesis for a direct effect, whereas H1, H2 and H3 indicate the hypotheses for interaction effects.

2.3. Moderating effects of market orientation, strategy and organisational power

An important element of R-A theory is the concept of learning organisation (Hunt & Morgan, 1996). Information and knowledge are important resources that enable the organisation to make better decisions. As indicated by Morgan and Hunt (1999, p. 284): 'the collective knowledge of the organisation and the processes developed for inducing organisational learning comprise much of a firm's information resources'. Hence, market orientation becomes a fundamental characteristic of the learning organisation. While MO is considered as an antecedent of performance (Moorman & Rust, 1999; Verhoef et al., 2011), MO may play a moderating role in the use of marketing capabilities, as market oriented firms tend to develop more effective capabilities (Zhou & Li, 2010; Smirnova et al., 2011). MO is also conceptualised as an antecedent to some capabilities (Nasution, Mavondo, Matanda, & Ndubisi, 2011), although there is no conclusive evidence to suggest whether MO moderates the relationship between capabilities and performance, or rather capabilities play a mediating role between MO and performance. On this ground, we assume an interaction of market orientation with marketing capabilities and propose our first nested hypothesis:

H1. Market orientation has a moderating effect on the direct relationship between marketing capabilities and firm performance.

H1a. Market orientation has a moderating effect on the direct relationship between marketing capabilities and firm performance with respect to the firm's objectives. (Model 4).

H1b. Market orientation has a moderating effect on the direct relationship between marketing capabilities and firm performance with respect to competitors. (Model 5).

Relying on evolutionary economics (Nelson & Winter, 2009), R-A theory criticises the foundational propositions of perfect competition (Hunt, 1997b). In a market with imperfect information, endogenous

growth is generated by innovation and destructive creativity while markets are characterised by a dynamic demand driven by actors' tastes and preferences which are motivated not by maximum utility but by hedonism (Sharma, Sivakumaran, & Marshall, 2006) or impulse (Sharma, Sivakumaran, & Marshall, 2010). In a conceptually new world where neoclassical assumptions of rational behaviour and utility maximisation have no ground, firms can respond to the irrational demands of the market by creating offers that add value through product differentiation or lower price (Porter, 1985). The relationship between generic strategies and performance is moderated by technology (Ortega, 2010).

R-A theory certainly distinguishes between differentiation and cost leadership: 'If no firm has a resource assortment that can produce either superior value for a particular market segment or has a cost advantage, then all firms will have parity market positions' (Hunt, 1997b, p. 65). Therefore, R-A theory accommodates a strategic perspective for the utilisation of resources and capabilities. However, it is not clear how different marketing strategies may interact with capabilities in affecting firm performance. Hence, our second nested hypothesis is:

H2. Marketing strategy has a moderating effect on the direct relationship between marketing capabilities and firm performance.

H2a. A differentiation strategy has a moderating effect on the direct relationship between marketing capabilities and firm performance with respect to the firm's objectives. (Model 6).

H2b. A differentiation strategy has a moderating effect on the direct relationship between marketing capabilities and firm performance with respect to competitors. (Model 7).

H2c. Cost leadership strategy has a moderating effect on the direct relationship between marketing capabilities and firm performance with respect to the firm's objectives. (Model 8).

H2d. Cost leadership strategy has a moderating effect on the direct relationship between marketing capabilities and firm performance with respect to competitors. (Model 9).

Lastly, R-A theory stresses relationships as an asset granting sustainable and long term accessibility to resources. Drawing on the importance of organisational culture and intra-firm social behaviour (Fiol & Lyles, 1985) and institutional routines in a social system (Nelson & Winter, 2009), Morgan and Hunt (1999, p. 284) maintain that there are ‘systematic processes that the firm acquires or develops that are applied to the various functions of the firm (...)’. Furthermore, Morgan and Hunt (1999, p. 284) state that ‘relational resources consist of the relationships: (1) between various constituencies within the organisation; and (2) between the organisation and its various external partners’. The influence of top management on departmental organisation and inter-departmental politics has a strong relationship with power sharing (Jurkus, Park, & Woodard, 2011) and performance (Buyl, Boone, Hendriks, & Matthyssens, 2011), because it affects the way resources are allocated and how the department develops its capabilities. Accordingly, the diversity and capability of the top management team affects innovativeness (Talke, Salomo, & Rost, 2010) and entrepreneurial orientation (Williams & Lee, 2009). Therefore, we assume a moderating effect of organisational power on the capabilities–performance relationship. Hence, our third nested hypothesis:

H3. Organisational power has a moderating effect on the direct relationship between marketing capabilities and firm performance.

H3a. Organisational power has a moderating effect on the direct relationship between marketing capabilities and firm performance with respect to the firm’s objectives. (Model 10).

H3b. Organisational power has a moderating effect on the direct relationship between marketing capabilities and firm performance with respect to competitors. (Model 11).

A graphic representation of our proposed analytical model and the hypothesised relationships amongst variables are depicted in Fig. 1.

3. Methodology

3.1. Instrument design and measurements

The instrument used is identical to the one designed by VL (2011). In Appendix 1 we provide a table summarising the variables used and list the questionnaire items composing different constructs and their measurements. In Appendix 2 we provide descriptives and correlations. In what follows we describe the measures whose details are summed up in Appendix 1.

Marketing capabilities (accountability of the marketing department, *account*; the customer connection role, *custconnect*; the perceived creativity of the marketing department, *creative*; the level of interdepartmental collaboration with respect to the sales department, *mktg_sales_col*, operations *mktg_oper_col*, finance *mktg_fin_col*, and R&D *mktg_RD_col*; and the level of perceived innovation within the department measured as the percentage of innovation produced, *innovative*).

Performance was originally implemented by VL as a self-reported 1–7 points’ Likert scale. The performance variable measures the perceived comparative firm performance with respect to competition (items marked with number 2 in Appendix 1) and with respect to internal objectives (items marked with number 1), scoring on 6 main items. The scale extremes are 1 = ‘worse’ and 7 = ‘much better’. We manipulated this construct by splitting the original overall performance into two distinct measures of performance, making distinction between the performances of the firm with respect to established internal objectives (*perform_1*) and with respect to competition (*perform_2*). This

scale was originally developed by Moorman and Rust (1999). All dependent variables were dichotomised as high versus low performances and the cut-off point was determined by looking at their factor loading distributions (which were not affected by skewness). The mean was used as cut-off point (*perform_1* cut-off = .01387, min = –2.24568, max = 3.84782; *perform_2* cut-off = .01696, min = –3.18133, max = 2.70548), indicating that any value higher than the cut-off point helps classify the case as high performance and any case whose value is lower than the cut-off point is classified as low performance (Niosi, 2003).

Market orientation, called *MARKOR* in our table, measures the firm’s market orientation according to Deshpandé and Farley’s (1998) *MARKOR* shortened scale.

Organisational power or influence is made of different items measuring influence (*IN_influence*) on a 1–7 points Likert scale adapted from Moorman and Rust (1999).

Strategy is measured as a binary variable, indicating whether the firm adopts a differentiation strategy (*strategy_diff*) or whether it focuses on cost leadership (*strategy_cost*). It was adapted from Verhoef and Leeflang (2009).

Several control variables were included and called as *firm characteristics*. These include the short versus long term strategic orientation of the firm, *orientation*, measured as a 1 to 10 points bipolar scale (Baker, Black, & Hart, 1982); the background of the CEO in terms of previous experience within a function of a firm, *CEO*, measured as categorical variable on 8 categories representing different functional areas (Homburg et al., 1999); a binary variable indicating whether the firm was listed on a stock market, *traded*; the percentage of turnover that was generated by B2B or B2C activities (1–10 points bipolar scale), *turn_B2BC*; the percentage of turnover generated by either services or goods provision, *turn_goodserv* (1–10 points bipolar scale); and the negotiation strength of the firm within its own channels (*ch_power*), measured as a 1–7 points Likert scale. Scales for all variables were developed by Verhoef and Leeflang (2009), except for channel power developed by Slater and Narver (1994).

3.2. Data collection, validity and reliability

The instrument and sample for the survey are identical to VL (2011) as we used the UK section of the same dataset originally used by VL’s (2011) cross-national study. All scales taken from the literature were tested on pilot samples. The alpha coefficients obtained for our scales

Table 2
Summary of hypotheses and results.

Designation	Hypothesis	Model	Hypothesised effect	Support
HDE	MC → P	1	+	Partial
HDEa	MC → P1	2	+	Partial
HDEb	MC → P2	3	+	Partial
H1			*	Partial
H1a	MO × MC → P1	4	*	Partial
H1b	MO × MC → P2	5	*	Partial
H2	MS × MC → P		*	Partial
H2a	DS × MC → P1	6	*	Partial
H2b	DS × MC → P2	7	*	Partial
H2c	CL × MC → P1	8	*	No
H2d	CL × MC → P2	9	*	No
H3			*	Partial
H3a	OP × MC → P1	10	*	Partial
H3b	OP × MC → P2	11	*	Partial

MC = marketing capabilities.
MO = market orientation.
MS = marketing strategy.
DS = differentiation strategy.
CL = cost leadership.
OP = organisational power.
P = performance.
* corresponds to .10.

Table 3
Direct effect models 1, 2 and 3 showing the effect of marketing capabilities on firm performance.

Direct effect of models 1, 2 and 3 (N = 222)	Model 1		Model 2		Model 3	
	DV = performance		DV = perform_1		DV = perform_2	
	Beta	Exp(B)	Beta	Exp(B)	Beta	Exp(B)
Account	.479*	1.614	.469*	1.599	.359	1.432
Connect	-.029	.972	-.381	.683	.086	1.090
Creative	.717**	2.049	.829***	2.291	.704***	2.022
Innovative	-.004	.996	-.009	.992	-.001	.999
<i>mktg_sales_col</i>	.128	1.136	-.032	.969	.189	1.208
<i>mktg_oper_col</i>	-.241	.786	-.209	.811	-.561**	.571
<i>mktg_fin_col</i>	.421	1.523	-.079	.924	.844***	2.326
<i>mktg_RD_col</i>	-.664**	.515	-.248	.780	-.712***	.491
<i>ch_power</i>	-.049	.952	-.179	.836	.089	1.093
Orientation	-.216	.806	-.151	.860	-.263	.769
CEO	.063	1.065	.081	1.084	-.023	.977
Traded	-.226	.798	-.093	.911	-.180	.835
<i>turn_B2BC</i>	-.068	.934	-.070	.933	-.035	.965
<i>turn_goodserv</i>	.135**	1.144	.032	1.032	.109*	1.115
Constant	-.257	.773	.450	1.568	-.210	.811
Nagelkerke R ²	0.261		0.243		0.281	
Hosmer and Lemeshow Test						
Chi-sq	8.826		4.482		5.348	
df	8		8		8	
Sig.	0.357		0.811		0.72	
Correct classification of cases (%)	65.3		64.4		70.2	

*** sig. < .01, ** sig. < .05, and * sig. < .10.

ranged from a minimum of .758 for *influence* to a maximum of .917 for *creative* (Cronbach's alphas, Appendix 1), which denotes internal reliability. The only sub-optimal coefficient was found for channel power (*ch_power*) with alpha .536. However, this result is not dissimilar from VL's reliability for the same measure (.590). The data collection took place in the UK in 2010 using an online survey. The survey was addressed to top marketing and financial executives, CEOs and top managers of medium and large size enterprises. A total of 222 complete responses were collected with an 18.2% response rate.

During the data collection phase, VL (2011) tested for common method bias and reported the result as follows: 'First, we include an item regarding economic confidence ("I have much confidence in the Dutch economy"), which is not related to the variables in our study. We calculate correlations between this question and the important constructs in our questionnaire and find no significant and very low correlations. Second, an exploratory factor analysis of all included items reveals that many factors are derived and explain 70.6% of the variance. If one general factor were derived, it would explain only 17.5% of the

Table 4
Interaction effect models 4 and 5 showing the moderating effect of MO on firm performance.

Interaction effect models 4 and 5 (N = 222)	Model 4		Model 5	
	DV = perform_1		DV = perform_2	
	Beta	Exp(B)	Beta	Exp(B)
MARKOR × account	-.049	0.952	.151	1.163
MARKOR × connect	-.233	.792	.360	1.433
MARKOR × creative	.122	1.130	-.128	0.880
MARKOR × innovative	.015**	1.015	.007	1.007
MARKOR × <i>mktg_sales_col</i>	.230	1.258	.760**	2.138
MARKOR × <i>mktg_oper_col</i>	.107	1.113	.381	1.464
MARKOR × <i>mktg_fin_col</i>	-.047	0.954	-.555	.574
MARKOR × <i>mktg_RD_col</i>	.062	1.064	-.291	.747
<i>ch_power</i>	.052	1.053	.288	1.334
Orientation	-.012*	.988	.138**	1.148
CEO	.011	1.011	-.023	0.977
Traded	.340	1.404	-.256	.774
<i>turn_B2BC</i>	-.105	.900	-.051	.950
<i>turn_goodserv</i>	.022	1.023	.042	1.043
Constant	.154	1.166	.062	1.064
Nagelkerke R ²	0.149		0.18	
Hosmer and Lemeshow Test				
Chi-sq	5522		6913	
df	8		8	
Sig.	0.701		0.546	
Correct classification of cases (%)	65		63.1	

***sig. < .01, **sig. < .05, and *sig. < .10.

Table 5
Interaction effect models 6, 7, 8 and 9 showing the moderating effect of marketing strategy on firm performance.

Interaction effect models 6, 7, 8 and 9 (N = 222)	Model 6		Model 7		Model 8		Model 9		
	Beta	Exp(B)	Beta	Exp(B)	Beta	Exp(B)	Beta	Exp(B)	
<i>strategy_diff</i> × account	.425	1.529	.275	1.316	<i>strategy_cost</i> × account	.801	2.227	33.549	371.000
<i>strategy_diff</i> × connect	-.299	.741	-.043	.958	<i>strategy_cost</i> × connect	-1.443	.236	117.882	1.569
<i>strategy_diff</i> × creative	.610*	1.841	.501	1.651	<i>strategy_cost</i> × creative	2.370	10.703	45.371	506.000
<i>strategy_diff</i> × innovative	.001	1.001	.009	1.009	<i>strategy_cost</i> × innovative	.021	1.022	.642	1.901
<i>strategy_diff</i> × <i>mktg_sales_col</i>	-.067	0.935	-.026	.975	<i>strategy_cost</i> × <i>mktg_sales_col</i>	-.149	0.862	46.167	1122.000
<i>strategy_diff</i> × <i>mktg_oper_col</i>	-.365	.695	-.622**	.537	<i>strategy_cost</i> × <i>mktg_oper_col</i>	.823	2.278	-4.164	.016
<i>strategy_diff</i> × <i>mktg_fin_col</i>	-.110	0.896	.965**	2.625	<i>strategy_cost</i> × <i>mktg_fin_col</i>	-.896	0.408	52.562	6.720
<i>strategy_diff</i> × <i>mktg_RD_col</i>	-.159	.853	-.884**	.413	<i>strategy_cost</i> × <i>mktg_RD_col</i>	-.267	.766	62.279	1.100
<i>ch_power</i>	-.132	.877	.215	1.240		.019	1.019	.217	1.243
Orientation	.011	1.011	-.200	.819		-.782	.458	-24.404	.000
CEO	.056	1.058	-.032	0.969		.011	1.011	-.050	0.951
Traded	-.097	.908	-.180	.835		.057	1.058	-.253	.776
<i>turn_B2BC</i>	-.074	.929	-.056	.946		-.041	.960	.008	1.008
<i>turn_goodserv</i>	.037	1.038	.097	1.102		.009	1.009	.010	1.010
Constant	-.089	.914	-.480	0.619		.238	1.269	.324	1.383
Nagelkerke R ²		0.149		0.211		0.158		0.405	
Hosmer and Lemeshow Test									
Chi-sq		5461		2803		10.616		8	
df		8		8		8		8	
Sig.		0.707		0.946		0.224		0.405	
Correct classification of cases (%)		60.2		64.1		61.2		65	

***sig. < .01, **sig. < .05, and *sig. < .10.

variance. Together, these two tests indicate no evidence of common method bias' (Verhoef et al., 2011: 13).

3.3. Sample description

The average firm had 6647 employees. In 49.1% of cases marketing was represented in the board of directors. Marketing was organised as a staff function within the firm in 22.4% of the cases, versus 43.7% of the cases in which marketing was a line function. This indicates most of the firms still had a marketing department at the time of the survey.

The respondents were executives in the marketing function (32.5%), finance (16.4%), CEO (1.5%) and other departments (41.0%). The firms themselves operated in different business fields, with 63.5% of firms operating in B2C and 36.5% B2B. 38.8% of firms traded goods whereas 62.2% were in the services sector. When looking at the average scores for the scales (measured on 1–7 Likert points, with 1 = low and 7 = high), influence averages 3.74 (SD = 1.17), accountability 4.32 (SD = 1.32), innovativeness 4.16 (SD = 2.23), customer connection 4.88 (SD = 1.16) and creativity 3.83 (SD = 1.22). If we observe the level of collaboration of marketing with other departments we find that the

Table 6
Interaction effect models 10 and 11 showing the moderating effect of organisational power on firm performance.

Interaction effect models 10 and 11 (N = 222)	Model 10		Model 11	
	Beta	Exp(B)	Beta	Exp(B)
Influence × account	.130	1.139	-.325	0.722
Influence × connect	-.031	.969	1.149***	3.155
Influence × creative	.267	1.305	-.237	0.789
Influence × innovative	.002	1.002	-.001	.999
Influence × <i>mktg_sales_col</i>	-.219	0.803	-.599	.549
Influence × <i>mktg_oper_col</i>	.259	1.296	.274	1.315
influence × <i>mktg_fin_col</i>	-.100	0.905	.738	2.091
Influence × <i>mktg_RD_col</i>	.069	1.071	-.344	.709
<i>ch_power</i>	-.057	.944	.288	1.333
Orientation	.560*	1.751	.654**	1.922
CEO	.029	1.029	-.060	0.941
traded	-.010	.990	-.067	.935
<i>turn_B2BC</i>	-.072	.930	-.052	.949
<i>turn_goodserv</i>	.016	1.016	.026	1.027
Constant	.068	1.070	.128	1.137
Nagelkerke R ²		0.145		0.26
Hosmer and Lemeshow Test				
Chi-sq		9		8547
df		8		8
Sig.		0.379		0.382
Correct classification of cases (%)		60.6		71.2

***sig. < .01, **sig. < .05, and *sig. < .10.

average score for the integration with finance is 5.34 (SD = 1.32), with sales is 4.79 (SD = 1.45), and with R&D is 4.63 (SD = 1.29).

To avoid sample biases from the potential differences between B2C and B2B firms, we have run a non-parametric test for group differences (Gibbons & Chakraborti, 2011). The Mann–Whitney test showed no significant differences, indicating that 88% of the variables indicate no differences between the two groups. Although for our sample there are no major differences, our findings may hold for samples with a different industry or national composition.

3.4. Model specification and data analysis

First of all, a Pearson-correlation test was performed to search for potentially high correlations amongst the predictors, which may cause multicollinearity. In Appendix 2 we can see that only 8% of the variables of the dataset are highly correlated ($\rho > .400$, sig. $\leq .01$) with each other. Although some extreme cases have very high shared variance (60% in the case of *mktg_fin_col* with *mktg_RD_col*), the average shared variance of all the variables amounts to about 8%. If we compare these variances with a previous study, in Moorman and Rust's (1999) paper approximately 50% of the variables were correlated, with an average shared variance of 19% and the presence of very high values (63% of share between variable 1 and variable 2 at page 188). It was not possible to compare correlations with VL (2009) because they did not report the significance levels of the correlations.

We analyse the data by using logistic regressions in order to determine the likelihood of predictors to have an effect on performance. Although the type and size of our dataset would allow for testing via structural equation modelling (SEM) techniques (Hair, Sarstedt, Ringle, & Mena, 2012; Hair, Ringle, & Sarstedt, 2013), small sample sizes ($n \approx 200$ or lower) lead to estimate biases in covariance based SEM (CB-SEM) (Reinartz, Haenlein, & Henseler, 2009). On the other hand, partial least square based SEM (PLS-SEM) techniques would be a good alternative for testing the models as they are based on OLS regression and maximise shared variance (Diamantopoulos & Riefler, 2011). However, both CB- and PLS-based SEM are limited in terms of global optimisation criterion, lacking the measure for overall model fit (Hair et al., 2012). On the other hand, logistic regression allows testing all constructs independently based on the likelihood of the relationship and it is a better suited technique than SEM for categorical measures (Jakobowicz & Derquenne, 2007).

We use an 'enter' method for the selection of the variable, thus all variables are entered in the model simultaneously. The enter algorithm is pre-set in IBM SPSS v. 23. Furthermore, all models' fit was assessed by the Nagelkerke statistic, which is a pseudo adjusted R^2 statistic, and by the Hosmer and Lemeshow Test. This test determines the accuracy of the distribution of the observed events, matching observed values with expected values (Hosmer & Lemeshow, 2000). Its basic assumption is that the test statics follows a χ^2 distribution. All non-significant p-levels indicate good fit for the model. Finally, we compute the percentage of correct cases classifications and we consider values above 60% as being acceptable, and values above 70% as being good, following a conventional guideline (Hair, Black, Babin, & Anderson, 2009).

We specify a total of eight models with a constant. The first three models are direct effect models for our base hypothesis (HDE) of a direct effect of marketing capabilities on performance, where model 1 has the overall *performance* as dependent variable, and with models 2 and 3 having as dependent variable *perform_1* and *perform_2* respectively. The remaining models test the moderating effects of market orientation (models 4 and 5) as indicated by hypothesis 1, strategy (models 6, 7, 8 and 9) as indicated by H2 and organisational power (models 10 and 11) as indicated by H3.

The three models for our base hypothesis, which consists of direct effect models, are specified as follows:

$$P(x_i) = \frac{1}{1 + e^{-x_i}}; \quad x_i = \beta_0 + \sum_j^n (\beta_j K_j) + \sum_j^n (\beta_j o_j) + \varepsilon; \quad (1)$$

where $P(x)$ is the likelihood of having high versus low performance and where x_i is the dichotomous value assigned to the dependent variable, β_0 is the constant, k_j are the capabilities, o_j are the organisation's characteristics, and ε is the error term. For our core hypotheses of moderation, which include interactions, the models are specified as follows:

$$P(x_i) = \frac{1}{1 + e^{-x_i}}; \quad x_i = \beta_0 + \prod_j^n \beta_j (K_j m_j) + \sum_j^n (\beta_j o_j) + \varepsilon; \quad (2)$$

where IT is the interaction of the variables and m_j are the moderators in the model.

The goodness-of-fit for different models are as follows: for the direct effect models, the minimum and maximum R^2 are for model 2 (Nagelkerke R^2 equal to .243) and for model 3 (Nagelkerke R^2 equal to .281). Hence, our direct models can explain approximately 25–30% of the variance. In terms of accuracy in the prediction, our models can classify correctly about 65–70% of the cases, with slightly higher accuracy for performance with respect to competitors (correct classification of cases = 70.2% in model 3).

For the interaction effect models, the minimum and maximum R^2 are for model 10 (Nagelkerke R^2 equal to .145) and for model 11 (Nagelkerke R^2 equal to .260). Hence, our interaction effect models can explain approximately 15–25% of the variance, with the exception of model 9 which can explain approximately 40% of the variance.

4. Empirical results

All hypotheses were partially supported, with the exception of H2c and H2d as there was no interaction effect for cost leadership as a strategy. Table 2 summarises the hypotheses and results. (See Tables 3–6.)

4.1. The direct effects of marketing capabilities on performance

Amongst marketing capabilities accountability, creativity, and collaboration show a direct effect on performance. We discuss these findings in more detail below.

Accountability (*account*) displays a significant ($p < .10$) direct, positive effect on overall performance (model 1). The higher the accountability in the firm the higher the performance approximately by 160% ($\text{ExpB} = 1.614$). Accountability has also a similar effect on performance with respect to set objectives (model 2, sig. $< .10$, $\text{ExpB} = 1.599$). However, the effect disappears when looking at performance with respect to competitors (model 3). Despite the apparent difficulty in interpreting why accountability shows a positive relationship with performance within the organisation, but no significance with respect to normative pressures outside of the organisation, the concept of social loafing (Earley, 1989) may give a plausible explanation on this. Social pressure, e.g. signification, legitimation and domination (Giddens, 2013) within the organisation and the legitimation of appraisal schemes (Mero, Guidice, & Brownlee, 2007) may push members to perform better with respect to internal objectives while pushing them to be more accountable, because bad performance can be easily associated with a single employee or manager (Hausknecht & Holwerda, 2013). On the other hand, bad performance with respect to competitors' actions may be less traceable. Therefore, employees may be collectively less accountable to external pressures of competition. This mechanism of social loafing may explain partly why the relationship between accountability and different types of performance may vary.

Also *creativity* (*creative*) is an important predictor of performance in general (model 1, sig. $< .05$; models 2 and 3, sig. $< .01$). The more creative the organisation is, the higher the overall performance ($\text{ExpB} =$

2.049), performance with respect to set objectives ($\text{ExpB} = 2.291$) and performance with respect to competition ($\text{ExpB} = 2.022$). The chances of observing higher performance in creative organisations double in all three models.

Collaboration of the marketing department with other departments seems to bear mixed results, depending on the type of performance. When we observe the effects of marketing capabilities on overall performance (model 1), there is a strong (sig. < .05), direct but negative ($\text{Beta} = -.664$) effect of collaboration between marketing and R&D (*mktg_RD_col*). Lack of collaboration between the two departments increases the overall performance of the firm. The chances of higher performance increase by approximately 50% ($\text{ExpB} = .515$) when the two departments carry on focusing on their core activities rather than collaborating. This counter-intuitive finding may be attributable to the advantage of increasing departmental focus, pushing the whole department to perform better through the creation of an organisational discourse or logic (Marshak & Grant, 2008) that justifies internal efficiency over the effectiveness of inter-departmental communication. Lack of collaboration and focus on internal routines may work better for departmental performance when inter-departmental integration is deficient. On the other hand, collaboration may be helpful under some conditions, e.g. when departmental routines do not seal the department in a functional silo, enabling process integration through physical and information flows (Smart, Maddern, & Maull, 2009). While marketing-R&D collaboration has no particular effect on performance with respect to set objectives (model 2), it has a strong (sig. < .01), direct but negative ($\text{Beta} = -.712$) effect on firm performance with respect to competitors (model 3). Again, also in this case, when the two departments collaborate and lose focus on their core activities, the chances for higher performance halves ($\text{ExpB} = .491$) with respect to competitors.

When we look at the effects of collaboration on performance with respect to competitors (model 3), collaboration between marketing and operations departments (*mktg_oper_col*) show a significant (sig. < .05), direct but negative ($\text{Beta} = -.561$) relationship with performance, indicating that the higher is the interaction between these two departments the lower are the chances for higher performance with respect to competitors ($\text{ExpB} = .571$). However, a strong collaboration between marketing and finance (*mktg_fin_col*) considerably improves the chances ($\text{ExpB} = 2.326$) for better performance with respect to competitors (sig. < .01).

These results highlight the apparent tension between the role of marketing capabilities in generating competitive advantage and the shift in marketing logic and practises as often observed by practitioners. Leveraging on creativity and accountability improves performance. However, inter-departmental collaboration is not particularly effective, perhaps due to the clash between silos-like functional departmentalisation within the firm and the need for a more responsive and flexible organisational structure which leverages on capabilities at a time when the marketing department loses importance within the organisation and marketing activities spread to all functional areas.

4.2. The moderating effect of market orientation on the relationship between marketing capabilities and performance

Looking at the results for the first interaction effect in models 4 and 5, market orientation (*MARKOR*) displays a significant ($p < .05$) interaction with *innovativeness* (*innovative*). Positive Beta in model 4 indicates that innovativeness in connection with market orientation increases the chances for better performance with respect to objectives by 100%. The same interaction is significant in the case of performance with respect to competitors (model 5).

Collaboration of the marketing department with sales (*mktg_sales_col*) shows a non-random (sig. < .05), strong interaction with market orientation (model 5). Thus, strong marketing-sales collaboration in

market oriented organisations doubles the chances of higher performance than competitors ($\text{ExpB} = 2.138$).

An unexpected effect of a control variable, *short versus long term orientation*, is particularly relevant to our main argument on resource-based advantage. This finding indicates that in market oriented organisations, short term focus (model 4, $\text{Beta} = -.012$) increases by 99% the chances of higher performance with respect to set objectives (sig. < .10). On the other hand, long term focus (model 5, $\text{Beta} = .138$) increases the chances by over 115% of higher performance with respect to competitors (sig. < .05).

4.3. The moderating effect of marketing strategy on the relationship between marketing capabilities and performance

A significant distinction should be noted between the effects of a differentiation strategy (*strategy_diff*) in models 6 and 7, and a cost leadership strategy (*strategy_cost*) in models 8 and 9.

When adopting a differentiation strategy, *creativity* (*creative*) in model 6 almost doubles the chances ($\text{ExpB} = 1.841$) of high performance with respect to objectives (sig. < .10). In creative organisations that follow a differentiation strategy we observe high performance. However, creativity shows no significant effect on performance with respect to competitors (model 7). Performance with respect to competitors is affected by the types of *collaboration* across different departments in the organisation. A strong relationship (model 7) between marketing and finance (*mktg_fin_col*) increases performance by 262% (sig. < .05). On the other hand, marketing-operation (*mktg_oper_col*) collaboration and marketing-R&D (*mktg_RD_col*) collaboration have a negative interaction effect (sig. < .05) on performance (Betas are respectively $-.622$ and $-.884$), halving the chances for higher performance ($\text{ExpB} = .537$ and $\text{Exp} = .413$).

Contrary to our expectation, when adopting a cost leadership strategy (models 8 and 9), no capabilities show any significant effect on performance. A potential explanation for this may be found in the incompatibility of cost-leadership and market orientation (Murray et al., 2011) with respect to the composition of our sample. As all firms tested show an inclination for market orientation, it is not unlikely for these firms to pursue a differentiation strategy as a default and develop capabilities to support that strategy. Market orientation is already observed as a precursor to marketing capability building (Atuahene-Gima 2005; Day 1994), depending on strategy directions (Murray et al., 2011, p. 256). This conjecture does not diminish the value of our findings, but we acknowledge the possibility that in samples of non-market-oriented organisations capabilities may interact with different strategies.

4.4. The moderating effect of organisational power on the relationship between marketing capabilities and performance

In the results for the interaction effect models 10 and 11, organisational power (*influence*) shows a significant ($p < .01$) interaction with the *ability to connect to customers* (*connect*). Positive Beta in model 11 indicates that high organisational power of marketing connecting with the customer enhances the chance for superior performance with respect to competitors three times ($\text{ExpB} = 3.155$). This same interaction is not significant when looking at the performance with respect to set objectives (model 10).

We also identified an unexpected effect of *short versus long term orientation*. This finding is particularly relevant to our main argument on resource-based advantage. It indicates that in organisations with powerful marketing departments long term focus (models 10 and 11) has positive effect on performance, almost doubling it both for performance with respect of set objectives ($\text{ExpB} = .1751$) and with respect to competitors ($\text{ExpB} = .1922$).

5. Discussion

In light of the results reported in the previous section significant moderating effects of market orientation, marketing strategy and organisational power should be kept into consideration in explaining how marketing capabilities contribute to firm performance (Morgan et al., 2009).

Creativity is an important trigger of innovation and consequently contributes with a direct effect to firm performance (Fleming, Mingo, and Chen (2007)). Not surprisingly, our result shows that creativity contributes to the firm performance under general conditions. However, in terms of interactions effects, creativity appears relevant only to firms pursuing a differentiation strategy and is linked to performance with respect to internal objectives. Despite the considerable appeal of a creative organisation and associated high performance work practises, managers need to take a cautious approach to the long-term development of creativity in light of organisational characteristics, industry context, competitive position and strategy.

Strategy plays a strong moderating role on the creativity–performance relationship. This finding is in line with the literature on competitive advantage, which posits that ‘a firm creates a sustained economic rent when it is able to consistently exceed the performance expectations of its owners, despite that these expectations will be adjusted given a firm’s prior performance levels’ (Barney, 2001, p. 48). However, creativity may not always be an antecedent of superior performance in competitive terms. Actually, our findings suggest that there is no evidence for a non-random effect of creativity on firm performance in those firms pursuing either cost leadership or superior performance with respect to competitors.

Collaboration is commonly regarded as a trigger of superior performance (De Luca & Atuahene-Gima, 2007). However, firms may benefit from collaboration in different ways and at different levels. Accordingly, inter-departmental collaboration may have a positive effect on performance only when it is aimed at specific strategic objectives. While interdepartmental collaboration may bring new ideas and initiatives to the organisation by increasing the diversity of knowledge and expertise, it could also increase the cost of communication and coordination (Meunier-FitzHugh & Lane, 2009). Therefore, firms without effective mechanisms of lateral communication, participative culture and flexible decision-making may try secure better performance by focusing on core activities of each functional department instead of seeking cross-functional collaboration. Our result shows that under different strategic regimes, collaboration brings different performance outcomes and in some cases excessive collaboration may hamper performance. Innovation, in contrast to collaboration, turns out to be more significant to performance with respect to strategic objectives rather than absolute competitive advantage. Hence, market orientation plays a moderating role in collaboration–performance and innovation–performance relationships. These findings offer a more critical perspective on the search for collaboration (Meunier-FitzHugh & Lane, 2009), highlighting that collaboration should be built not just on resource complementarities but also in close connection with organisational strategies and capabilities (Kerr, Farrukh, Phaal, & Probert, 2013).

Another important finding is related to the moderating effect of organisational power. Although VL (2009) identified the influence of the marketing department as a symbol of organisational power, they did not clarify its link with customer focus. Marketing influence becomes relevant when organisations make a conscious effort to create a relationship with customers (Heide, 1994; Swaminathan & Moorman, 2009). The last two findings on collaboration and organisational power support R-A theory’s propositions of relationship-based competitive advantage (Morgan & Hunt, 1999) but also shed new light on how intangible resources such as collaboration and power can affect marketing performance.

Our last observation reveals that the focus of the firm on a specific strategy (*short versus long term focus orientation*) over a period of time

is critical to performance. Dynamic marketing capabilities enable the firm to shift resources and transform their use when radical change threatens the firm’s ability to achieve competitive advantage (Bruni & Verona, 2009; Barrales-Molina et al., 2014; Rossignoli & Ricciardi, 2015). Short term orientation improves the performance of market oriented firms (Bhuian, Menguc, & Bell, 2005). Long term orientation is better suited to improving performance relative to competitors (Lumpkin, Brigham, & Moss, 2010). If the firm has a strong or influential marketing department, then long term orientation or focus leads to overall performance enhancement.

6. Implications and conclusion

R-A theory maintains that intangible resources are critical to building competitive advantage (Hunt & Morgan, 1995; Hunt & Morgan, 2005). Our analytical framework is consistent with R-A theory and extends its original insights to a specific analysis of the moderators of the capability–performance relationship such as market orientation, strategy and organisational power. Using simple but strong established measures and a representative sample of firms drawn from VL’s data (2009), our study tests new hypotheses generated by revisiting the R-A theory to provide further theoretical explanation of how intra-firm capabilities contribute to performance and competitive advantage. Our findings suggest that developing both tangible and intangible capabilities may not suit all firms. For instance, firms pursuing a cost leadership strategy may decide to outsource marketing related tasks and to opt for competences to improve operational efficiency rather than marketing capabilities (Gilley & Rasheed, 2000).

This study evaluates different definitions and operationalisations of capabilities found in representative empirical studies of the capability–performance relationship to develop an analytical framework rooted in R-A theory and to identify important moderators of the capability–performance relationship. This approach is taken because previous studies have not explicitly adopted the R-A theory as a theoretical framework and formulated their hypotheses out of a methodological framework and empirical generalisations. Notwithstanding the contributions of previous empirical studies to the discipline of marketing, we argue that the lack of a specific theoretical framework has brought a degree of confusion on the definition, measurement and operationalisation of the constructs related to marketing and organisational capabilities (what should constitute a capability and why?) and performance (what type of performance measure should be used and for what reason?).

Our study, therefore, attempts to resolve an apparent tension between two different streams of research which present diverging interpretations and operationalisations of capabilities and performance (Moorman & Slotegraaf, 1999; Vorhies & Morgan, 2005; Day, 2011). The application of R-A theory also gives us the opportunity to reflect on both marketing and organisational antecedents of firm performance and the mechanisms by which competitive advantage is generated.

While our analytical framework based on R-A theory sheds new light on the mechanisms of moderation in the capabilities–performance relationship, some important limitations of our study have to be recognised. The R-A theory highlights the importance of innovation as an endogenous trigger of growth (Hunt & Lambe, 2000). However, our measure of innovativeness as a capability does not sufficiently capture the endogenous dynamic of innovation. Therefore, future research may adopt more objective and multiple indicators of innovation input and output to explain the role of innovation as an important generator of superior performance. A second limitation of our study lies in the cross-sectional approach to the capabilities–performance relationship. Although our analysis allows a static understanding of how competitive advantage is generated by marketing and organisational capabilities, we suggest that future research should adopt a longitudinal research design and data to examine how performance and competitive advantage may change over time in light of the manipulation of marketing capabilities.

Appendices

Appendix 1
Measures.

ID	Variable name	Items	Factor loading*	Cronbach's alpha**	No. of items	Type C = continuous O = ordinal N = nominal	Measure	Authors
<i>Performance measures</i>								
i	Performance	(1) Relative to your firm's stated objectives / (2) competitors how is your firm performing on		0.907 (overall)–0.921 (perform_1)–0.914 (perform_2)	12 (overall)–6 (perform_1)–6 (perform_2)	C	1–7 Likert scale	Moorman and Rust (1999)
		(1) Customer satisfaction	0.595					
		(1) Customer loyalty	0.610					
		(1) Turnover	0.638					
		(1) Profitability	0.763					
		(1) Market share	0.743					
		(1) Cost level	0.502					
		(2) Customer satisfaction	0.720					
		(2) Customer loyalty	0.720					
		(2) Turnover	0.832					
		(2) Profitability	0.808					
		(2) Market share	0.767					
		(2) Cost level	0.732					
<i>Marketing capabilities</i>								
d	Account	Is effective at linking their activities to financial outcomes	0.893	0.792	3	C	1–7 Likert scale	Moorman and Rust (1999)
		Shows how their plans will return into financial outcomes	0.933					
		Has little respect for the activities of the marketing has little attention for financial outcomes of their activities	0.689					
e	Connect	Is effective at translating customer needs into new products or services	0.803	0.776	4	C	1–7 Likert scale	Moorman and Rust (1999)
		Promotes customer needs in our firm	0.815					
		Rarely shows how customer needs can be taken into account for our strategy (r)	0.808					
		Has not enough knowledge and skills to translate customer needs into technical specifications (r)	0.664					
f	Creative	Dull/exciting	0.880	0.917	5	C	1–7 bipolar scale	Andrews and Smith (1996)
		Fresh/routine	0.897					
		Novel/predictable	0.900					
		Trendsetting/warmed over	0.856					
		Nothing special/an industry model	0.790					
h	Innovative	What is the percentage of introduced new products in the last five years that were initiated by the following department? Please divide 100 points across four departments: (1) R&D, (2) marketing, (3) sales, and (4) other. The points assigned to marketing department are used as the innovativeness score of the marketing department.	NA	NA	1	C	Percentage	Verhoef and Leeflang (2009)
g ₁	<i>mktg_sales_col</i>	To what extent has the marketing department and the specific department had problems concerning coordination of activities in the past three years?	0.916	0.816	2	C	1–7 Likert scale	Maltz and Kohli (1996)
		To what extent has the marketing department and the specific department had hindered each other's performance in the past three years?	0.916					
g ₂	<i>mktg_oper_col</i>	To what extent has the marketing department and the specific department had problems concerning coordination of activities in the past three years?	0.904	0.784	2			
		To what extent has the marketing department and the specific department had hindered each other's performance in the past three years?	0.904					
g ₃	<i>mktg_fin_col</i>	To what extent has the marketing department and the specific department had problems concerning coordination of activities in the past three years?	0.902	0.778	2			
		To what extent has the marketing department and the specific department	0.902					

(continued on next page)

Appendix 1 (continued)

ID	Variable name	Items	Factor loading*	Cronbach's alpha**	No. of items	Type C = continuous O = ordinal N = nominal	Measure	Authors
g ₄	<i>mktg_RD_col</i>	had hindered each other's performance in the past three years? To what extent has the marketing department and the specific department had problems concerning coordination of activities in the past three years? To what extent has the marketing department and the specific department had hindered each other's performance in the past three years?	0.917 0.917	0.810	2			
<i>Market orientation</i>								
j	<i>MARKOR</i>	Our business objectives are driven primarily by customer satisfaction. We constantly monitor our level of commitment and orientation to serving customer needs. We freely communicate information about our successful and unsuccessful customer experiences across all business functions. Our strategy for competitive advantage is based on our understanding of customers' needs. We measure customer satisfaction systematically and frequently. We have routine or regular measures of customer service. We are more customer focused than our competitors. I believe this business exists primarily to serve customers.	0.740 0.859 0.591 0.785 0.774 0.800 0.711 0.638	0.880	8	C	1–7 Likert scale	Deshpandé and Farley (1998)
<i>Marketing strategy</i>								
l	<i>strategy_diff</i>	Choice amongst pursued strategies: (i) cost leadership, (ii) differentiation, (iii) cost focus, (iv) differentiation focus; values = count(ii,iv)				N	binary 0/1	Porter (1980), Verhoef and Leeflang (2009))
m	<i>strategy_cost</i>	Choice amongst pursued strategies: (i) cost leadership, (ii) differentiation, (iii) cost focus, (iv) differentiation focus; values = count(i, iii)				N	binary 0/1	
<i>Influence of the marketing department</i>								
b	<i>IN_influence</i>	The functions performed by the marketing department are generally considered to be more critical than other functions. The marketing department is generally considered to be more influential than other departments. The marketing department is considered to be less important than other departments. Marketing tends to dominate other functions in decision-making The marketing department is primarily responsible for marketing activities Marketing is everyone's responsibility	0.846 –0.587 –0.824 0.874 0.854 0.742	0.758	6	C	1–7 Likert scale	Moorman and Rust (1999)
<i>Organisational characteristics (control variables)</i>								
k	<i>Orientation</i>	Short-term orientation / long-term orientation				O	1–10 bipolar scale	Baker et al. (1982)
n	<i>CEO</i>	What is the primary functional background of the most senior person (e.g. CEO) in your firm for the UK? (i) general, (ii) financial/accountancy, (iii) technical, (iv) marketing, (v) law, (vi) real estate, (vii) medical, (viii) other				N	8 categories	Homburg et al. (1999)
o	<i>Traded</i>	Is your firm listed on one or more stock markets?				N	binary 0/1	Verhoef and Leeflang (2009)
p	<i>turn_B2BC</i>	Please indicate the percentage of your turnover that arises from B2B or B2C markets: B2B/B2C.				O	1–10 bipolar scale	Verhoef and Leeflang (2009)

Appendix 1 (continued)

ID	Variable name	Items	Factor loading*	Cronbach's alpha**	No. of items	Type C = continuous O = ordinal N = nominal	Measure	Authors
q	turn_goodserv	Please indicate the percentage of your turnover that arises from goods or services markets: goods/services.				O	1–10 bipolar scale	Verhoef and Leeflang Verhoef and Leeflang (2009)
r	ch_power	Our company has a strong bargaining position to our buyers. Our buyers have substantial bargaining power. Our buyers are more powerful than suppliers (our own organisation). The technology in our industry changes rapidly. The intensity of competition in our industry is strongly decreased.	0.072 0.825 0.799 0.512 –0.277	0.536	5	C	1–7 Likert scale	Slater and Narver (1994)

Appendix 2

Descriptives and correlations.

Pearson correlations															
	N = 222	mean	S.D.	min	max	IN_influence	Account	Connect	Creative	mktg_sales_col	mktg_oper_col	mktg_fin_col	mktg_RD_col	Innovative	MARKOR
IN_influence	0	0.96	–2.33	2.73	–	–	–	–	–	–	–	–	–	–	–
Account	0	0.94	–2.42	2.22	0.352*	–	–	–	–	–	–	–	–	–	–
Connect	0	0.94	–3.62	1.94	0.268*	0.508*	–	–	–	–	–	–	–	–	–
Creative	0	0.85	–2.61	2.37	0.169*	0.196*	0.330*	–	–	–	–	–	–	–	–
mktg_sales_col	0	0.92	–1.65	2.55	–0.062	–0.144	–0.141	0.005	–	–	–	–	–	–	–
mktg_oper_col	0	0.92	–1.85	2.33	–0.088	–0.194*	–0.206	–0.129	0.492*	–	–	–	–	–	–
mktg_fin_col	0	0.92	–2.03	2.50	0.032	–0.168	–0.287*	–0.095	0.589	0.523*	–	–	–	–	–
mktg_RD_col	0	0.91	–1.51	2.74	0.023	–0.084	–0.196	–0.005	0.462*	0.475*	0.603*	–	–	–	–
Innovative	39.60	23.44	3.00	100.00	0.208	–0.069	0.034	–0.024	0.018	0.023	0.093	0.053	–	–	–
MARKOR	0	1.00	–3.04	1.82	0.161	0.103	0.340*	0.219	–0.163	–0.138	–0.247	–0.174	0.024	–	–

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