

Rethinking the structural factors in inter-organisational marketing settings: Empirical conclusions

Abstract

Organisational structural factors have become a point of contention in recent years within the marketing and management literature with important implications for marketing strategy. In this paper we conceptually and empirically examine the effects of two structural factors, centralisation and formality, on innovation in alliances such as marketing partnerships.

Keywords: marketing alliance, structure, innovation

Introduction

Alliances and other forms of interorganisational partnerships have gained significant importance in implementing marketing strategies. These types of interorganisational forms have been characterised by various organisational structures; i.e., interorganisational structures differ in regards to their formality and centralisation. While several authors have examined certain aspects of collaborative arrangements between partners in business relationships, there seem to be no studies that examine interorganisational structure. For example, Bello and Gilliland (1997) investigated the effects of outcome controls, activity controls and flexibility on export channel performance; Celly and Frazier (1996) examined outcome-based and activity-based co-ordination efforts in channel relationships; Lusch and Brown (1996) studied interdependency, contracting and relational behavior in marketing channels; and Mohr and co-authors (1996) researched collaborative communication in inter-firm relationships. This apparent lack of research in interorganisational structures seems even more troublesome as authors such as Burns and Stalker (1965) argue that organisational structure has a significant influence on the organisation's ability to innovate. The latter is of crucial relevance to many organisations that enter into an alliance to implement their marketing strategies; i.e., they need to identify and manage innovative approaches for successfully implementing their marketing strategies. Thus, it is important to understand how interorganisational structure affects innovation within the context of alliances such as marketing partnerships.

Aims

The purpose of this work is to empirically assess whether organisational structure in inter-organisational (alliance) settings influences innovation. Specifically, we examine the effects of structural formality and structural centralisation within the context of strategic alliances. Given that most alliances are not based on joint equity, the *alliance team* is used as the unit of analysis so that the interorganisational setting is focused upon. Findings are reported from a cross-sectional, large-scale study focusing on innovation in alliances. Inspired by research into the relative importance of structural issues, this paper provides empirical justification that enables marketing and management scholars to come closer to substantiating the mainly conceptual arguments that have been presented thus far. A better understanding of structural factors in the context of strategic alliances is important for marketing and management strategists alike. A better understanding will assist marketing managers to selected and manage interorganisational partnerships with appropriate levels of structural formality and centrality.

Foundation

Fundamentally, this research integrates the earlier works of Burns and Stalker (1965) and alliance management literature that deals explicitly or implicitly, with innovation and related concepts. Thus, we draw upon the works of authors such as Bucic and Gudergan (2003), Lyles and Reger (1993) and Ghoshal and Bartlett's (1988). Their works suggest that to understand innovation within a partnership context it is important to examine antecedent constructs of innovation which are creativity, learning and knowledge stock. Their work provided insights into the role played of structural and other factors on these factors. Those specifically included structural formality and centralisation, which were examined within the context of the alliance team and its ability to adapt, interact and implement decisions (e.g., Wildavsky, 1979; Fiol, 1996; Amason et al., 1995; Leenders et al., 2003).

Definitions and hypotheses:

Commonly, organisations are either mechanistic or organic in their approach to governance (Burns and Stalker, 1965). *Structural formality* refers to the extent of mechanistic governance in the organisation, where a formal structure can be observed for example, through hierarchical control. Burns and Stalker (1965) suggested that formal approaches to governance—or structure, as referred to in this paper, are appropriate in stable environments that seldom require change. Fittingly, these methods are characterised by rigidity and guidelines that instil conformity among members, policies and methods. Consequently, members of these types of organisations are pressured to approach their work, interactions and approaches to problem-solving in a mechanistic manner (Burns and Stalker 1965). While these approaches may have been appropriate in some contexts, governance in collaborative settings is more complex. This is reflected in Bartlett and Ghoshal's (1991) suggestion that formal structures lack effectiveness in current business environments because of their inflexibility and upholding of closed systems. More recently, Bonner and co-authors (2002) strengthen this argument by suggesting that while some degree of formality is necessary for proficient management, excessive or inappropriate control hinders creativity, which directly impacts on alliance innovation (Bucic et al., 2002).

In contrast, organic structures make allowances for "organisational slack" and allow members to interact more easily. Burns and Stalker (1965) suggest that organic structures are suitable for dynamic organisations that require constant change and adaptation. Along these same lines, Collier and Esteban (1999) suggest that organisations in evolving and unsettled environments should be responsive and flexible to cope with continuous change.

In this paper, it is suggested that a formal, mechanistic structure is restrictive for individuals, the groups that they are in, and the alliance. Procedures and artificial boundaries are imposed, limiting interaction opportunities, thus learning and creativity, which directly impact alliance innovation (Bucic et al., 2002) Structural formality is defined as *a mechanistic, inflexible system of control governing the alliance team* and the following hypothesis is derived:

H1: Structural formality has a negative effect on collaborative innovation.

The governance of organisational decision-making is referred to in this paper, as *structural centralisation* (Wallach, 1983). In an organisation, decision-making can be centrally controlled within a small group of individuals (centralised) or dispersed across organisational levels (decentralised) (Floyd and Woodruff, 1996). Studies (e.g., Leenders et al., 2003) have

shown that in settings with low levels of centralisation, individuals are exposed to more opinions and information, resulting in an integration of perspectives, encouraging creativity. This also facilitates information exchanges and interaction among individuals, leading to the generation of meaningful information and interpretations, hence learning (Senge, 1990); creativity and learning, in turn, foster innovation (e.g., Bucic et al., 2002).

High levels of centralisation can lead to conflicting perspectives and can hinder progress (Wildavsky, 1979; Fiol, 1996). That is, high levels of structural centralisation restrict decision-making within the alliance to a designated set of people, limiting interaction and information exchange. In this paper, structural centralisation is defined as *the concentration of decision-making to the people in the alliance team* and the following hypothesis is derived:

H2: Structural centralisation has a negative effect on collaborative innovation.

Method

The setting of this research focuses on a cross-industry sample of 4,500 medium to large sized organisations that have formed at least one alliance (without distinguishing between equity and non-equity alliances). To ensure sufficient variance in the data, the sample was selected to include organisations operating in diverse manufacturing and services arenas. The use of this sampling procedure introduced deliberate variations in relationships under examination. The unit of analysis in this research is the alliance team, resulting from the collaboration between two independent organisations. Using the alliance team as the unit of analysis is appropriate for studying the phenomenon of the collaborative innovation process in alliances such as marketing partnerships. Directing the questionnaire to the Alliance Manager ensured collection of appropriate data. This key informant was asked to complete the questionnaire based on (only) one alliance that they have had experience with and have detailed knowledge about. This method ensures that the unit of analysis is adequately addressed and that useful information is collected. A pilot test assisted in refining the questionnaire items. The data collection method of personalised packages was complemented by a reminder fax to increase the response rate.

The questionnaire consisted of reflective and formative measures. Reflective measures were evaluated using reliability analysis (Nunnally and Bernstein, 1994) and Cronbach alpha scores, and formative measures using Vanishing Tetrads (Bollen and Ting, 2000). Structural equation modelling (Jöreskog and Sörbom, 1982) featuring partial least squares analysis (PLS) (Chin, 1998) was used for model estimation (to examine the effects discussed in this paper, a range of control factors was included in our estimation). This allowed the researchers to make explicit assumptions regarding constructs and relationships (e.g., Hulland, 1999)—a benefit leading to increased use of SEM in marketing and management when accounting for multiple relationships and modelling of unobservable variables (e.g., Bagozzi, 1980; Fornell and Cha, 1994).

Results and implications

The results of our analysis provide interesting insights which we will discuss in the following sections. As shown in Table 1 and Table 2, the measurement properties are appropriate for carrying out the analysis. Table 3 briefly summarises the path coefficients and significance levels for the relationships discussed.

Table 1: Reflective scale Cronbach alphas

CONSTRUCT	No. Items	Cronbach alpha
Creativity	4	0.8551
Formality	4	0.7481
Centralisation	3	0.6870

Table 2: Formative scales p-values (Vanishing Tetrads)

CONSTRUCT	χ^2	d.f.	p-value
Innovation	106.13	44	0.0000
Learning	51.23	20	0.0001
Knowledge	53.07	20	0.0001

Table 3: Estimation of Effects (PLS)

CONSTRUCT	Path Coefficient	T-Value	Sig. level	1 or 2-Tail
<i>Effects on Partnership Innovation</i>				
Partnership Creativity	0.241	4.697	****	1
Partnership Learning	0.292	4.132	****	1
Partnership Knowledge Stock	0.170	4.684	****	1
<i>Effects on Partnership Creativity</i>				
Structure – Formality	0.002	-1.016	n.s.	1
Structure – Centralisation	-0.112	-2.359	***	1
<i>Effects on Partnership Learning</i>				
Structure – Formality	-0.169	-2.352	***	1
Structure – Centralisation	-0.085	-2.969	****	1
<i>Effects on Partnership Knowledge Stock</i>				
Partnership Learning	0.635	11.721	***	1

The non-significant effect of structural formality on partnership creativity suggests that a rigid structure governing the partnership should be of no great concern when gauging which factors promote or inhibit partnership creativity. For example, tight control over processes and interactions within the partnership team are not considered to be effective by the partnership manager for the partnership team when aiming to produce innovations. However, the negative but significant result for partnership learning suggests that tight control does impact the partnership team's ability to learn. That is, it may be interpreted that the tighter the control of say, interactions with the partnership, the less team members are likely to learn from each other and disseminate information. This effect is negative for the partnership in terms of producing innovative output.

The hypothesised effect of structural formality in the paper is based on the understanding that it is important to account for structure set at the partnership level and their impact on the partnership team. As suggested in the early organisational structure literature (e.g., Burns and Stalker, 1965), an organisation is either mechanistic or organic. They are either regulated and closed systems, or loosely organised structures. In a context focusing on the partnership team

wherein creativity is critical for innovation, a structure that enables fluidity and leads to flexibility and adaptability would also be important for creativity. However, the results suggest that the structural facet of formality does not influence the partnership team members' creativity, and in turn, partnership team innovation.

For structural centralisation, the results supported the hypotheses and likewise, the newer ideas in the literature. The results indicate significant but negative effects on the core constructs, therefore partnership innovation. It can be interpreted from this information that concentrating decisions among members within the partnership team only, does not lead to positive results. This could suggest that it might be more effective to have joint or decision-making where more than one individual is involved.

The management literature discusses a diverse set of contexts and consequences of structural factors. Notable is that the focused, well-planned approaches—often characterised by formal procedures—that were once broadly recommended, are becoming increasingly redundant in dynamic and competitive environments (e.g., Kamoche and Pina e Cunha, 2001). This is aligned with the findings of this study. The argument is consistent with a logic that puts emphasis on the role of fluid systems—rather than formal systems—in the exchange and development of knowledge. However, recognising the risk associated with a lack of say, structural formality, Brown and Eisenhardt (1997) recommended combining limited structure with opportunity to improvise. In a similar vein, Tatikonda and Rosenthal (2000) show that the task of balancing 'firmness' and 'flexibility' can be achieved through project management formality.

The implications of the literature and Tatikonda and Rosenthal's (2000) findings in particular, are that a possible explanation for the non-significant result of structural formality on partnership creativity may be that formality at the alliance level does not play a role *within* the alliance team. That is, the structural formality of the relation of the partnership to its parent organisations is irrelevant to the individuals and their efforts within the partnership team. This conclusion is interesting as it supports the debate regarding the effect of formality in the organisation. It indicates that there is a need for further research to understand better the implications for structural factors on inter-organisational arrangements.

Conclusion

Partnership managers can further increase creativity by reducing the concentration of decision-making from a small group of people to more widely dispersed members of the partnership team. It is also important for managers to note that changing the degree of formality within the context of the partnership will not have a strong consequence, when considering creativity. This indicates that managers are more likely to accomplish better outcomes from the partnership team by focusing on other areas rather than the levels of formality that are present when following procedures and reliance on formal policies.

The findings suggest those structural aspects, including formality and centralisation, negatively influence partnership learning. This suggests that the manager should focus effort so that the partnership is organised loosely, people within the partnership team do not rely on formal policies in their decision-making, and that the partnership is not very hierarchically organised. Furthermore, it is important that members of the partnership team are involved in determining objectives and have wide latitude in making job-related choices.

References

- Bagozzi, R. P. (1980) *Causal Models in Marketing*, New York: John Wiley, New York
- Bartlett, C.A. and Ghoshal, S. (1991) Global Strategic Management: Impact on the New Frontiers of Strategy Research. *Strategic Management Journal*, 12 (Special Issue, Summer), 5-16.
- Bello, Daniel C. and David I. Gilliland (1997), "The effect of output controls, process controls, and flexibility on export channel performance," *Journal of Marketing*, Vol. 61(1), 22-38.
- Bollen, K. A. and Ting K-F. (2000) A Tetrad Test for Causal Indicators, *Psychological Methods*, Vol. 5: 322
- Brown, Shona L., and Kathleen M. Eisenhardt (1997) The art of continuous change: Linking complexity theory and timebased evolution in relentlessly shifting organizations, *Administrative Science Quarterly* 42: 1-34.
- Bucic, T., S. Gudergan and K. Miller (2002) The Innovation Process in Alliances, *conference proceedings*, Organisational Knowledge and Learning Conference (OKLC), Athens, Greece, April 2002.
- Burns, Tom, and G. M. Stalker (1961) *The management of innovation*. London: Tavistock.
- Celly, Kirti S. and Gary L. Frazier (1996), "Outcome-based and behavior-based coordination efforts in channel relationships," *Journal of Marketing Research*, Vol. 33 (2), 200-210.
- Chin, W.W. (1998) The Partial Least Squares Approach for Structural Equation Modeling, in Marcoulides, G.A. (ed.). *Modern Methods for Business*.
- Collier, J. and Esteban, R. (1999) Governance in the participative organization: Freedom, Creativity and Ethics, *Journal of Business Ethics*, Vol. 21: 173-188
- Fiol, C.M. (1996) Squeezing harder doesn't always work: Continuing the search for consistency in innovation research, *Academy of Management Review*, Vol. 21(4): 1012-1021.
- Floyd, S. W. and Wooldridge, B. (1996) *Strategic Middle Manager: How to Create and Sustain Competitive Advantage*
- Fornell, C. and Cha, J. (1994) Partial Least Squares, in R. P. Bagozzi (Ed.), *Advanced Methods of Marketing Research*, Blackwell Publisher, UK
- Hulland, J. (1999) Use of partial least squares (PLS) in strategic management research: A review of four recent studies, *Strategic Management Journal*, Vol. 20: 195-203.
- Joreskog, K. G. and Sorbom, D. (1982) Recent Developments in Structural Equation Modeling, *Journal of Marketing Research*, Vol. 19: 404-416
- Kamoche, Ken, and Miguel Pina e Cunha (2001) Minimal structures: From jazz improvisation to product innovation, *Organization Studies*, 16 (4) 29-42.
- Leenders, Roger, A.J. Th, Jo.M.L. van Engelen., and Jan Kratzer (2003) Virtuality, Communication, and the New Product Team Creativity: A Social Network Perspective, *Journal of Engineering & Technology Management*, 20 (1/2):69-93.
- Lusch, Robert F. and James R. Brown (1996), "Interdependency, contracting, and relational behavior in marketing channels," *Journal of Marketing*, Vol. 60 (4), 19-38.
- Lyles, Marjorie A. and Rhonda K. Reger (1993), "Managing for autonomy in joint ventures: A longitudinal study of upward influence," *Journal of Management Studies*, Vol. 30 (3), 383-404.

- Mohr, Jakki J., Robert J. Fisher and John R. Nevin (1996), "Collaborative communication in interfirm relationships: Moderating effects of integration and control," *Journal of Marketing*, Vol. 60 (3), 103-115.
- Senge, P.M. (1994) Learning to Alter Mental Models, *Executive Excellence*, 11(3):16-17.
- Wallach, Ellen J. (1983) Individuals and Organizations: The Cultural Match. *Training and Development Journal*, 37 (2): 28-36.
- Wildavsky, A. (1979) No Risk is the Highest Risk of All, *American Scientist*, (January-February), reprinted in Glickman and Gough (1990).