Adaptation in business relationships: The impact of uncertainty and relational norms

A Work in Progress

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Abstract
Adaptation is a construct of central importance to the IMP paradigm. The role of uncertainty as an impediment to interfirm adaptation is explored. A model is proposed that seeks to test the negative effects of uncertainty on adaptation. The model also tests the extent to which uncertainty can be controlled by social norms. Additionally, the role of social norms as a means of enhancing interfirm adaptation when uncertainty is present is also tested. The results of an empirical test of 225 respondents in the UK car components sectors did not find support for the negative effects of uncertainty on adaptation but did produce support for the remaining propositions.

Keywords: Adaptation, uncertainty, norms and interaction model
Introduction

Within the IMP paradigm, adaptation has been recognised as a construct of central importance (Ford, 1980; IMP, 1982; Metcalf, Frear and Krishnan, 1992; Kalafatis 2002). Its critical importance to ongoing relationships between industrial marketers has been identified by researchers (Brennan & Turnbull, 1999; IMP Group, 1982; Turnbull, Ford and Cunningham, 1996). However, it has also been shown that adaptation within relationships can be influenced by uncertainty (Ford 1980; Turnbull, Ford and Cunningham, 1996). This implies that the risk posed by uncertainty needs to be addressed if adaptation is to be efficiently handled within relationships. Since it has been demonstrated that adaptation arises out of a process of interaction or social exchange (Metcalf, Frear and Krishnan, 1992; Kalafatis, 2002), it has been decided to focus on the role of social norms as a means of dealing with this problem. In particular, this paper seeks to clarify two areas. The first is the extent to which norms can lessen the negative effects of uncertainty on interfirm adaptation. The second is the extent to which norms can enhance interfirm adaptation.

This paper is structured as follows. Firstly, a brief literature review on the effects of uncertainty on adaptation, and the role of norms within interfirm relationships is provided. This is followed by a description of a conceptual framework that sets out a research model and by a section setting out the methodology used. The findings will be set out, followed by a discussion of the theoretical contributions of this paper, together with its limitations and and proposed areas for are set out.

Literature review

Uncertainty appears prominently in many theoretical paradigms and its importance as a potential impediment to adaptation within relationships has been recognised by researchers (Aldrich, 1979; Ford, 1980). The study of uncertainty as a construct poses difficulties for the researcher because of the wide range of different conceptualisations and research settings which have been used (Rindfleish and Heide, 1997). This diversity of conceptualisations has caused seemingly confounding decisions to be arrived at (Balakrishnan and Wernerfelt, 1986). Due to the practical problems that this poses to the researcher it has been decided to concentrate on one type of uncertainty: environmental dynamism because it has been shown to be the strongest determinant of environmental uncertainty (Bourgeois, 1980; Duncan, 1972) and it has been linked to adaptation problems (Joshi and Campbell, 2003).

Environmental dynamism is the result of factors such as rapidly changing technology, frequent price changes, or variance in product availability and support services (Joshi and Campbell, 2003). The effect of environmental dynamism is to make it more difficult to predict future contingencies (Aldrich, 1979; Child, 1972) thereby contributing to unpredictability, which in turn requires a firm to develop mechanisms for coping with the need for adaptation.
One mechanism for organising adaptation that has featured across several research paradigms is social norms. Norms are defined generally in the literature as common expectations concerning behaviour (Axelrod, 1986; Bendor and Mookherjee, 1990; Gibbs, 1981). Within the interaction model of the IMP, social norms arise out of social exchange (Metcalf, Frear and Krishnan, 1992; Kalafatis, 2002). Norms represent a means of providing control within a relationship by providing a general frame of reference, order, and standards against which to guide and assess appropriate behaviour in uncertain situations. In such situations contracts are often incomplete, and legal remedies can undermine relationship continuity (Williamson, 1975). In contrast, norms have been shown to motivate performance by focusing attention on the shared values of the parties to a relationship (Macneil, 1980). Furthermore, norms rely on peer pressure and social sanctions to mitigate the risk of shirking and opportunistic expropriation. Since norms involve expectations rather than rigid standards as may appear in a formal written contract, they create a cooperative as opposed to a confrontational environment for negotiating adaptations, thus promoting continuity in exchange (Macneil, 1980).

The collective effect of cooperative norms is to define relational properties that are important in affecting adaptations in dynamic market conditions. Cooperative norms reflect expectations that the parties to a relationship have about working together to achieve mutual and individual goals jointly. The existence of cooperative norms does not imply one party's acquiescence to another's needs but rather that both parties behave in a manner that suggests they understand that they must work together to achieve common objectives (Anderson and Narus, 1990). For example, the presence of a strong form of cooperative norms is to make the parties to a relationship more flexible in response to changing conditions and treat problems as joint responsibilities. Conversely, a focus on working independently to achieve individual goals characterizes low cooperation.

Cooperation is a key aspect of interaction model (Håkansson, 1982). It plays a central role in achieving coordination in channels of distribution (Anderson and Narus, 1990; Morgan and Hunt, 1994). A high degree of cooperation suggests behaviours consistent with the bilateral power system described by Bonoma (1976, p. 517), in which the exchange parties "act to maintain the union as well as fulfil individual hedonic plans." Finally, cooperation is implicit in the game-theoretic representations of interpersonal relationships (Kelley and Thibaut, 1978).

Cooperative norms cut across many of the relational norms proposed by Macneil (1980), including flexibility in response to changing conditions (Heide and John, 1992) and solidarity, where the preservation of the relationship is an important end (Kaufmann and Stern, 1988). Some authors suggest that the development of such norms reflects trust and operates as a mode of governance in commercial exchange (Bradach and Eccles, 1989). Furthermore, it has been established that the existence of co-operation is an antecedent to adaptation within the interaction model (Metcalf, Frear and Krishan, 1992; Kalafatis, 2002).
Conceptual Framework
The starting point of the research model has been the explicit acknowledgement by a number of authors that adaptation within business relationships is a relatively under-researched area. Furthermore, the existing research identifies uncertainty as likely to have a negative effect on adaptation. This is reflected in the research model (see figure A1), where negative linkages are hypothesised between uncertainty with adaptation.

Figure A1: The Research model
At the same time, the literature strongly suggests that the presence of norms is likely to enhance adaptation within relationships, as well as to counter the negative effects of uncertainty. The model depicts positive linkages between norms and adaptation.

Of the various norm constructs, three relational norms have been identified as relevant: information exchange, solidarity and flexibility as the ones that are most relevant to adaptation. Consequently, the research model depicts these norms as a second-order construct (comprising the norms of information exchange, solidarity and flexibility) with adaptation as a consequence of the presence of these relational norms.

Hypotheses
Based on the discussion above, the following propositions are proposed:
Hypothesis 1: Uncertainty is negatively related to adaptation in interfirm relationships

Hypothesis 2: Relational norms are positively related to adaptation in interfirm relationships

Hypothesis 3: The interaction of relational norms and uncertainty is positively related to adaptation in interfirm relationships

Methodology

In order to test the model and the proposed pathways, data were obtained from 225 respondents operating in the UK car components sector by means of a survey. A major trade directory of this industry was used as the sampling frame. Companies involved in the manufacture of car components were identified and then, on the basis of their job title, as it appeared in the directory, potential respondents were contacted by telephone and invited to participate in the survey. In order for the person to be eligible for participation in the survey, respondents were asked about their length of experience in managing relationships in the car components sector and those with less than two years experience were screened out. Furthermore, in order to be eligible to participate the respondent had to be either a lead negotiator or a major participant in negotiations with customers. Respondents were then asked to indicate their level of agreement with a number of statements according to a seven point likert scale. The statements were compiled after a literature review was carried out and were based on existing scales.

Data Analysis/Results

The data were analyzed using partial least squares (PLS), using PLSGraph software. Statistical significance was tested through bootstrapping with 500 samples. For the measurement model, scale items with significant loadings greater than 0.7 were retained and internal consistency of each scale was confirmed (of all scales values greater than 0.8). The second order construct was confirmed. All construct measures exhibited convergent validity (average variance explained above 0.5) and square root of average variance for each scale was considerably higher than bivariate correlations, thus confirming discriminant validity. The results related to the structural model are presented in the Table below.

<table>
<thead>
<tr>
<th>Structural Pathways</th>
<th>Coefficient</th>
<th>T statistics</th>
</tr>
</thead>
</table>


Table 1: Results of empirical testing of research model

<table>
<thead>
<tr>
<th>Pathway</th>
<th>R²</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncertainty → Adaptation</td>
<td>0.129</td>
<td>1.23</td>
</tr>
<tr>
<td>Relational Norms → Adaptation</td>
<td>0.332</td>
<td>4.59 ***</td>
</tr>
<tr>
<td>RelNorms_Uncert → Adaptation</td>
<td>-0.222</td>
<td>2.14 *</td>
</tr>
</tbody>
</table>

Goodness of Fit and Predictive Relevance Values

Outcome: Adaptation

R² 0.435

Note: * p < 0.05; ** p < 0.01; *** p < 0.001

With an R² value of 0.43 the model demonstrates considerable explanatory power. Looking specifically at the pathways, no significant result was achieved for the effect of uncertainty on adaptation. Relational norms are shown to have a positive effect on adaptation within relationships. When the interaction between relational norms with uncertainty is tested, it is shown that in the case of the effect on adaptation of the interaction between relational norms and uncertainty the result is significant.

Conclusions

From a theoretical standpoint, this paper offers an important insight into the role of norms as a form of social exchange within the interaction model of the IMP. The research findings show that the presence of norms is likely to engender increased adaptation within interfirm relationships even in situations in which uncertainty is present.

Although a significant relationship between uncertainty and adaptation is the expected result on the basis of existing literature, the non-significant result for uncertainty on adaptation is not expected. One possible explanation for this result is the research context chosen: the car components sector is sometimes characterised by long-term contracts which may mean that uncertainty is less pervasive than in other contexts. It is a result that is consistent with at least one other study where the main effect of uncertainty have been non-significant but the effects of uncertainty when interacted with other variables has been positive (Heide and John, 1992). It does seem, therefore, that the pathways should be tested in a different research context in order to broaden our understanding of the linkages set. A limitation of this
research is that we examined the model from only one side of the buyer-supplier dyad. Increasingly, researchers are calling for a simultaneous examination of relationship models from both sides of the dyad (e.g. Heide and John, 1992).

In addition to addressing the above identified limitations, future research should explore the hypothesis that was not supported in this research. The main effect of uncertainty is a subject of immense complexity and there remains substantial work before clarity can be provided to this problematic area of research.

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