PORT WINE DISTRIBUTION: BUYER/SELLER COOPERATION

Luis Sequeira
Port Wine Distribution Strategies
Buyer/Seller Cooperation

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Abstract

The main purpose of this study is to research buyer-seller cooperation in the distribution of Port wine. Eight research hypotheses were derived from data collected by case study, and incorporated into a quantitative questionnaire distributed to commercial directors of 52 producer companies and 49 distributors. A binary probit model was developed to analyze the Likert-scaled answers in valid questionnaires returned by 32 producer respondents and 29 of distributor respondents. The results of the study show that (1) conflict, when permanent and intense, inhibits the development of cooperative relationships; (2) trust is likely to solve conflicts; (3) a combination of trust and adaptation increases the potential for cooperation; and (4) the presence of a foreign employee at the interface between producers and distributors does not negatively affect the level of cooperation. Lastly, cooperation can be considered as an important means of developing skills and resources, which can then be applied to existing transactional relationships.

Keywords: Cooperation, Marketing, Distribution, Multiple Channels, Port Wine.
INTRODUCTION

Thach and Olsen (2006) remarked that one of the critical success factors for any wine producer is to build effective partnership relationships with its distributors. In fact, the scarcity of intensive studies of the distribution chain in the wine industry has been identified as an important shortcoming by Beaujanot et al. (2004), Orth et al. (2007), and Thach and Olsen (2006). As for the Port Wine industry specifically, the need is especially urgent, since no investigations at all have been conducted recently. Despite urging by Lages (1998, p. 98) there is still a gap in the research a decade later.

The historical background

‘Port wine’ is produced only in the Douro river valley area of northern Portugal, which extends eastwards from inland of the city of Oporto to the border with Spain. The name of the wine derives from the name of the city, which in English derives from ‘the port’ in Portuguese (o porto) but in Portuguese is simply ‘Porto’. In general usage, the wine is called simply ‘port’. The region is situated in an area that begins about 100 km east of Oporto and stretches as far as the Spanish border.

The Duoro valley is characterised by rocky schist soils, precipitous valley sides and a Mediterranean type of climate (Pereira, 2005), even though Portugal is in fact an Atlantic country. The wine it produces is fortified, by the addition of brandy before the final fermentation, which endows it with a sweet, dark and full-bodied character. This practice appears to owe its origin to the strong historical influence of the English in Portugal, who
appreciated such characteristics (Martins, 2000). As early as 1703, the Methuen Treaty between the two countries granted Portuguese wines easy access to the Britain and a tax rate only two thirds of that charged on French wines, in return for greater freedom of trade for British textiles in Portugal. As demand for port increased exponentially, the Demarcated Region of the Douro was created in 1757. Though the Hungarian Tokay and Italian Chianti regions had been delimited much earlier (Kolpan et al, 1996), those did not have the system of individual classifications, formal records and certification controls that were established in the Douro (Pereira, 2007). Port is thus the first and oldest of the modern controlled denominations.

The wines of the Douro are transported in tankers to the town of Vila Nova de Gaia, across the river from Oporto, for storage and ageing. Brito (1997) distinguishes four main categories of player in the port wine industry: growers, cooperative cellars, exporters and distributors. The annual sales of about 30,000 growers are based on relationships of trust, without formal contracts (Araujo and Brito, 1998). The exporters play a key role in the sector by connecting the Douro production network to the official authorities and the markets (Brito, 2006).

Exporters store and age wines in the cellars of Vila Nova de Gaia, promoting and selling the wine around the world. To remain competitive in the face of substitute products, changes in consumption patterns and the growing negotiating power of distributors, among other changes, the long-established companies of mainly English origin dominating the port trade (Croft, founded 1588; Kopke, 1638; Warre’s, 1670; Taylor’s
1692) began a process of concentration immediately after the Second World War (Lopes, 1998: 38). By the 1950s, the first acquisitions and mergers in the port business had taken place (Bradford, 1983), the trend continuing in the following decades until today just five groups (Gran Cruz, Symington Family Estates, The Fladgate Partnership, Sogrape and Sogevinus) account for 80% of total sales in the sector (Woodard, 2008). Their size allows them to make the necessarily financial investments, which are especially high in this sector on account of the ‘law of the third’ obliging producers to hold stock equivalent to three times their annual sales.

Over recent decades, the wine-producing companies have progressively increased the number of properties they own in the Douro. Given that there is no short-term return on such investments, the purpose of this vertical integration is essentially strategic: by controlling the entire process, they can guarantee the production of better and more distinctive wines (Brito, 1996b). In this way, these companies control the various stages in the value chain, with the likely exception of the final phase: distribution.

Export has always been crucial to the port wine industry. During the 19th century, it represented 30% of total Portuguese exports and defraying 19% of the cost of total national imports (Martins, 1990). Until the First World War, some 80% of worldwide port sales were to the British market; thereafter, on account of variations in disposable income and consumer habits, that share fell to just half. Today, port is exported to over 100 countries, among which the European Union accounts for 92% of total volume and 83% of value. The North American market contributes approximately 7% and 12% of
volume and value respectively. The most important single-country foreign markets are France, the Netherlands, the United Kingdom and Portugal itself, collectively accounting for 68% of total sales and 62% of total value (IVDP, 2008).

Internationalisation has played as important a role in the worldwide distribution of port as in other contemporary export businesses. Before the Second World War, for example, sales to the United Kingdom were made through direct contacts between individual producers and small merchants, but Bradford (1983) noted that such informal, family-owned marketing channels were no longer the pattern forty years later, having been overtaken by the concentration in the world distribution of alcoholic products. Port is now distributed by third parties, such as the multinational alcoholic beverages companies and powerful retailers, who use their own channels to distribute port brands (Aguiar and Lopes, 2000). Control of the distribution network is a key factor in gaining a competitive advantage in the port wine sector (Lages and Shaw, 1998), largely because distribution tends to be controlled by a small number of companies with a major emphasis on price (Maçães and Dias, 2003).

Channel relationships
Marketing channels have also changed dramatically over the last few decades, particularly with respect to their structure, working partnerships, operational practice and performance skills (Gadde, 2004; Mudambi and Aggarwal, 2003). There has furthermore been a profound change in the way companies deal with each other, Frazier and Antia (1995) observing two concurrent trends: deterioration in marketing channel relationships,
yet simultaneously closer relations between some suppliers and buyers. The high level of coordination demanded by modern market conditions has led to a reduction in the number of business partners, with the consequence that the level of collaboration between buyer and supplier has become more intense (Ploetner and Ehret, 2006).

As companies become involved in a more restrictive set of relationships, with a longer-term perspective, a new paradigm has become evident, based on the development and management of working relationships: namely ‘relationship marketing’ (Grönroos, 1994; Gummesson, 1994; Kozak and Cohen, 1997; Möller and Halinen, 2000; Parvatiyar and Sheth, 2000). The maintenance of cooperative relationships poses a substantial challenge, in respect not only of the inherent complexity but also of the scarcity of time and resources. It is therefore incumbent upon researchers and practitioners to learn more about these complex relationships, as Frazier and Rody (1991) remarked two decades ago.

The Port wine business thus faces a dual challenge: how to cope with the changing distribution landscape and how to develop new collaborative and cooperative relationships. The next section summarises the theoretical underpinning of the research constructs and develops eight related hypotheses. It is followed by the methodology of a research study of cooperation in the distribution chain, based upon data collected by questionnaire from commercial directors of Port wine producers and their distributors in France, the Netherlands and the United Kingdom. A fourth section presents the results of
probit analysis of the collected data. The final two sections draw conclusions for strategic management of the process and for future research into the topic.

THEORETICAL BACKGROUND AND HYPOTHESES

As a theoretical framework for our study, we propose that cooperation, underlying the various relationships depicted, is a function of eight behavioural constructs: supply chain management, power, conflict, trust, interdependence, adaptation, culture, and opportunism.

Supply Chain Management

Handfield and Nichols (1999) defined supply chain management as the integration of all activities associated with the flow and transformation of goods, from raw materials to the final consumer, as well as information flows among the parties involved in the chain. Min and Mentzer (2000) and Rogers and Leuschner (2004) have observed that it is both a logistic and a marketing concept. Other authors describe the supply chain as constituting a system of interdependent companies, which collectively facilitate more collaborative relationships and partnerships between buyers and sellers (Bantham et al., 2003; Hagel and Brown, 2005; Jahre and Fabbe-Costenes, 2005), reducing costs and enhancing relationship quality (Lambert and Cooper, 2000; Liker and Choi, 2004; Omta et al., 2002).
The importance of the supply chain, not only as a means of improving cost efficiency but also as a source of competitive advantage, has been proved conclusively by Mentzer et al. (2001) and Slone (2004), and it can therefore be considered a strategic resource (Ketchen and Hult, 2007). Supply chain management requires coordination and the integration of activities in key processes (Alvarado and Kotzab, 2001; Stock and Lambert, 2001), through strong formal and informal communication among chain members (McAdam and McCormack, 2001) across complex networks of interdependent companies.

By collaborating within the supply chain, the parties involved can achieve substantial operational advantages, encouraging consistent collaboration rather than confrontation (Bhutta et al., 2003; Christopher, 1998; Duffy and Fearne, 2004; Lindblom and Olkkonen, 2008). This in turn adds value to products and services, and simultaneously develops the capacity for solving logistical issues and marketing problems (Alvarado and Kotzab, 2001).

Vlachosa et al (2008) define ‘supply chain management capabilities’ as specific processes developed by a company (information exchange; technological competences; the logistical resources to move the product efficiently; the ability to collaborate effectively with supply chain partners) and the complex interactions among those resources. When such capabilities are well developed, cooperation is facilitated (Li et al., 2006) and competitive advantage conferred (Ketchen and Hult, 2007). It has been suggested that only such capabilities can deliver real competitive advantage (Markides and Williamson, 1996).
Summarising the propositions discussed in this section, we hypothesize that:

**H1: Supply chain management capabilities promote cooperation between channel members.**

**Power**

The construct of power has been researched extensively in the marketing literature (Ailawadi *et al.*, 1995; Bloom and Perry, 2001; El-Ansary and Stern, 1972; Gaski, 1984, 1996; Hunt and Nevin, 1974; Lusch, 1976; Merlo *et al.*, 2004). This level of research interest is fully justified, given that power is a factor in all business relationships (Hingley, 2005).

El-Ansary and Stern’s study was one of the first attempts to specify the determinants of power. The authors defined the power of a channel member as its “ability to control the decision variables in the marketing strategy of another member in a given channel at a different level of distribution”. To qualify as power, that control would need to be “different from the influenced member’s original level of control over his own marketing strategy” (El-Ansary and Stern, 1972, p. 47).

Power has shifted from producers to distributors, as the latter gain direct access to large numbers of clients, and the structure of the distribution chain has consolidated (Stock and Lambert, 2001). Evidence of this shift is to be found in the common practice among the big distribution companies of dictating the producer’s marketing strategy or even
controlling strategy in such fundamental corporate disciplines as pricing, promotion and product positioning (Zenor, 1994). A research study of the UK market by Robson and Rawnsley (2001, p. 47) concluded: “it is clear that distributors hold the power in retailing”.

The manner in which power is used is fundamental to the management of the potential for conflict inherent in each and every relationship (Gadde, 2004). Several researchers have come to the conclusion that the exercise of coercive power in marketing channels will damage a relationship between channel members, increase conflict and diminish trust (Bunduchi, 2008; Duarte and Davies, 2004; Frazier and Rody, 1991; Gadde 2004; Hunt and Nevin, 1974; Leonidou et al., 2008; Lusch, 1976; Thach and Olsen, 2006). Geylani et al. (2007) observe, on the other hand, that a powerful distributor may use coercive power in order to bargain for lower prices and obtain more favourable deals from a supplier. Though the objective is to price the supplier’s products below its competitors’, the outcome is a concomitant increase in conflict. In practice, nevertheless, the use of coercive power seems to be a regular practice in marketing channels (Kiyak et al., 2001): the most powerful actors can achieve their objectives by coercion.

On balance, we hypothesize that:

**H2: The exercise of coercive power exerts a negative impact on cooperation amongst channel members.**

Conflict
Gaski (1984, p. 11) defines conflict as “the perception on the part of a channel member that its goal attainment is being impeded by another, with stress or tension the result”. Several authors argue that business relationships always entail both conflict and cooperation (Stern and Reve, 1980; Welch and Wilkinson, 2005). A high level of conflict is not a problem only in the context of low collaboration (Gadde and Håkansson, 2001). If not managed appropriately, it can lead to the termination of a relationship, but if disputes are handled constructively and amicably, the conflict is labelled ‘functional’ (Morgan and Hunt, 1994), and can engender the commitment from both partners (Madhok, 1995) that is necessary for a sound relationship (Håkansson and Snehota, 1995).

It has been suggested that conflict is inevitable in marketing channels (Emiliani, 2003), on account of producers’ and distributors’ different corporate objectives and contrasting market perspectives (Gattorna, 1999; Coughlan and Stern, 2001). More significantly in the present context, the most important driver of channel conflict has been found to be centred on differences with respect to price expectations, as distributors rely on their suppliers to improve their financial performance in a zero-sum game (Emiliani, 2003; Mentzer et al, 2001).

With respect to marketing channels specifically, conflict can also increase when multiple channel strategies are deployed (Rangaswamy and van Bruggen, 2005; Rosenbloom, 2007). Cespedes and Corey (1990) concluded, however, that such a strategy would allow the firm to determine the degree of conflict that will have to be managed. Tsay and
Agrawal (2004) argue that conflict in marketing channels can undermine attempts to develop cooperative relationships, leading to lower profits for both parties.

Summarising the propositions discussed in this section, we hypothesize that:

**H3: Persistent and intense conflict constitutes an obstacle to cooperation in marketing channels.**

**Trust**

Trust has been identified as a key element in any business relationship (Arnott, 2007), particularly important in any research related to cooperation (Geyskens *et al.*, 1998; Ring and Van de Ven, 1992) and especially in the context of marketing channels (Halliday, 2003). It has been defined by Kumar (1996, p. 95) as the “ability of the parties to make a leap of faith: they believe that each is interested in the other’s welfare and that neither will act without first considering the action’s impact on the other”.

Such relationships are time consuming; trust cannot be regarded as a static concept, but rather as something in constant evolution. In time, the parties come to know each other better and the level of trust changes as experience of successes and failures accumulates, and general interaction progresses (Gadde and Håkansson, 2001; Inkpen, 2005). Trust has been studied not only as a coordination mechanism but also as an important precondition for enhanced performance in complex competitive environments (Free, 2008).
Under conditions of uncertainty and ‘asymmetrical information’, the trust construct is fundamental in understanding interpersonal behaviour and economic relationships (Agarwal et al., 2007). Its significance in the context of wine distribution has been recently confirmed by a study in the USA, in which Thach and Olsen (2006) concluded that producers facing market uncertainty and asymmetry of information tend to rely more on partners they trust.

Specifically, cooperation has been identified as a basic precondition for the high degree of commitment required for an effective cooperative relationship (Johnston et al., 2004; Min and Mentzer, 2000) and as a process in which trust is essential (Ganesan, 1994; Lui et al., 2006). Ganesan has further argued that producers and distributors who are concerned with the success of a retailer as well as their own will be trusted to a greater extent than those who seem to be interested solely in their own welfare.

Trust is a psychological condition that may be either the cause or result of cooperation (Rousseau et al., 1998). That is perhaps why Spekman and Carraway (2006) assert that, despite being a key link in cooperative relationships, trust is fragile and subject to several tensions and vicissitudes. Ploetner and Ehret (2006) argue that cooperation is impossible, without a minimal level of trust. The greater the capacity for trust, the lower the transaction costs entailed in negotiation, the establishment of agreements and the conduct of the relationship. The need for legal structures and safeguards in relationship management is thereby reduced (Ring and Van de Ven, 1994).
Relating trust to cooperation, we hypothesize that:

**H4: The greater the level of trust, the greater the propensity to cooperate amongst channel members.**

**Interdependence**

Companies have to operate within an integrated and interdependent system of buyers and suppliers, normally involving themselves in inter-organizational transactions in order to achieve objectives they could not fulfil independently, and eventually becoming dependent upon such transactions (Eyuboglu *et al.*, 2003). Pfeffer and Salancik (1978, p.40) observed that interdependence came about “whenever one actor does not entirely control all the conditions necessary for the achievement of an action or for obtaining the outcome desired from the action”. Given the limited supply of scarce resources that would be valuable to another company, and the intensity of competition for them, it is inevitable that parties providing important resources are difficult to replace (Buchanan, 1992). Within marketing channels, both actors are dependent on each other to some degree. The structure of this reciprocal dependence characterizes their interdependence (Gundlach and Cadotte, 1994), given their complementary needs (Luo, 2008). According to Gattorna (1999) and van Bruggen *et al.* (2005), the quality of relationships in marketing channels improves once interdependence increases.

The development of interdependence may act as a means of mitigating an increase in buyer power. Interdependent relationships create potential termination costs, the prospect of which encourages greater investment in increasing long-term levels of trust (Shaw and
Gibbs, 1995). Buyer-supplier interdependence can lead to higher profitability for both partners, since it implies the need and desire to establish mutually beneficial relationships (Gattorna, 1999; Nevin, 1995). This finding has been confirmed by van Bruggen et al. (2005), who concluded that the quality of a buyer-seller relationship quality is enhanced when interdependence increases.

Studying a variety of buyer-seller relationships, Duffy (2008) identified three distinct types, respectively characterised by limited coordination, high coordination, and cooperation. Duffy emphasises the importance of interdependence in cooperation relationships. In fact, it is intimately connected to cooperation; when it is high, companies are more willing to pursue a long-term competitive advantage, which promotes cooperation (Berthon et al., 2003).

Several researchers have argued that interdependence promotes trust (Laaksonen et al., 2008; Mentzer et al., 2001; Yilmaz et al.; 2005), and is a key characteristic of cooperation (Ploetner and Ehret, 2006).

Drawing on the findings of the studies discussed, we hypothesize that:

**H5: Increased interdependence enhances cooperation between channel members.**

**Adaptation**

Brennan and Turnbull (1998) define adaptation as the making of behavioural or structural modifications by one organisation, at the individual, group or corporate level, which are
designed to meet the specific needs of another organization. Adaptation is not perceived merely as an answer to a market situation, but as an efficient way to maintain and develop a valued relationship.

Ling-Yee (2007) notes that adaptation can be an important source of knowledge, and can thus facilitate the development of a positive relationship. It therefore allows companies to change their structure, in an effort to increase their response capabilities with respect to their partners (Levinthal, 1997). Doing so demonstrates commitment and reduces the distance between parties, leading to strengthening of the relationship (Lukkari and Parvinen, 2008). The practice of adaptation entails a more ‘behavioural’ approach to business relationships than before, allowing for the development of more flexible partnerships (Mukherji and Francis, 2008).

In markets where buyers and sellers frequently establish and develop lasting relationships, adaptation to the partner is expected to occur (Hallén et al., 1991). Nevertheless, there appears to be evidence that sellers adapt more frequently to buyers than vice-versa (Brennan et al., 2003). Adaptation may manifest itself as a means of developing the requirement for a partnership or strengthening the relationship itself (Brennan and Turnbull, 1999), or it may be the result of a desire to make adjustments that will deliver benefits for both partners (Hagberg-Andersson, 2001). Such adaptations are potentially necessary to allow buyers and sellers to establish successful long-term relationships (Canning and Hanmer-Lloyd, 2001).
A recent study of buyer-seller relationships by Fang et al. (2008) concluded that investments in specific adaptations enhance cooperation, and that those are followed by a joint effort to accommodate changes in the relationship. The optimization of activities requires coordination through adaptation (Jahre and Fabbe-Costes, 2005), in which sense adaptations represent a coordinated and cooperative response to change (Gulati et al., 2005).

In the context of wine distribution, a study by Gow et al. (2002) found that the capacity for innovation in a producer’s supply chain management system enhanced the results for the company and its partners. Beaujanot et al. (2004), studying the Australian wine industry, concluded that wine producers with the greatest capacity to adapt were the most willing to develop cooperative relationships.

For Brennan et al. (2003), one important characteristic of “partnership” is the willingness of at least one actor to adapt to the needs of the other. Adaptation strengthens the relationship between business partners (Johanson and Mattson, 1987). Hence, we hypothesise that:

**H6: The greater the capacity to adapt, the greater the willingness to cooperate amongst channel members.**

**Culture:**

Marketing decisions are influenced not only by tangible factors, such as the firm’s resources and capabilities, but also by intangible factors such as national culture.
Hofstede (1993) defined national culture as “the collective programming of the mind which distinguishes one group of category of people from another”, adding that “the category of people is the nation” (p. 89). It is thus assumed that thinking and behaviour are influenced by cultural values. National culture offers fundamental assumptions and values, adding an important tool in the context of business relationship behaviour (Fang, 2001). The internationalization of business has focused more attention on the impact of local cultures in working relationships across national boundaries. Culture is reflected in management style (Calori and Dufour, 1995), or in the way cooperation is handled (Bearden et al., 2006).

Several authors have identified culture as an important factor for collaboration and cooperation amongst companies: for example, Griffith et al. (2000), Steensma et al. (2000) and Leek et al. (2006). Among those, Steensma et al. concluded that national culture can directly influence the formation of alliances. Other studies have demonstrated its influence in the nature of relationships between actors in the marketing channels (Kale and McIntyre, 1991; LaBahn and Harich, 1994; Kale and Barnes, 1992).

Given that it is usual to encounter employees of different nationalities and from different cultures in modern companies, it is important to consider the implications in terms of cooperation. The company’s sales representatives are the employees most closely and regularly in contact with its customers, and therefore the most likely to engender any ‘foreignness’ reaction. We therefore hypothesize that:
H7: The presence of a foreign sales representative does not constrain cooperation in the marketing channel.

Opportunism:

Opportunism has been defined by Williamson (1975, p. 255) as “self-interest seeking with guile”, which can “involve either data distortion or the making of self-disbelieved promises”. This seminal paper argued that such behaviour as “tough” negotiation or strong disagreement is not opportunistic. Jap and Anderson (2003, p. 1686) subsequently identified several key elements of true opportunism, which included: “the distortion of information, including overt behaviours such as lying, cheating and stealing, as well as more subtle behaviours such as misrepresentation by misrepresenting information by not fully disclosing; (ii) reneging on implicit commitments by shirking, or failing to fulfil promises, and obligations.”. They noted that either party in a business relationship may engage in opportunism.

Williamson had argued that the opportunism concept does not mean that all actors are unreliable, but implies that it is unwise to become naively involved in working relationships. Several research studies have suggested that the effects of opportunism can be mitigated by creating control mechanisms (Stump and Heide, 1996; Williamson, 1993), but others argue that it is a hazard inherent in any business relationship (Jones, 2005). Even in cooperative relationships, it is by no means necessarily absent, and in fact constitutes one of the major threats to such cooperation (Das, 2004). Though it might be more efficient for a seller to work with several distribution channel partners, the potential
for opportunism could thereby be increased (McAfee and Schwartz, 1994). Also, buyer opportunism is negatively related to dependence on a supplier and positively to a supplier’s control over a seller’s decisions (Provan and Skinner, 1989).

Opportunistic behaviour is less likely when there is trust between partners in a working relationship (Bunduchi, 2008), and the strengthening of relationships is a more important means of controlling opportunism than formal contracts (Deeds and Hill, 1998). Opportunism and trust are not necessarily polar opposites. For instance, Sako and Helper (1998) asserted that technical support might enhance trust, but would not safeguard against opportunism. Lado et al. (2008) suggest that it is feasible to develop cooperative relationships with a minimal level of what they describe as “generalized trust”, as long as the risk of opportunism is perceived to be low.

Drawing on the findings of the studies discussed, we hypothesize that:

**H8: Opportunistic behaviour has a negative impact on the development of cooperative relationships.**

**RESEARCH METHODOLOGY**

With the objective of testing H1-H8, our study combined qualitative and quantitative methodologies: case studies for the formulation of the hypothesis and a structured questionnaire to collect the data for analysis. Given the specificity of the study, a
A convenience sample was deemed to be appropriate (Patton, 1990). Several authors have underlined the advantages of such a combined methodology as a means to enrich research findings while avoiding the susceptibility to bias associated with a single methodology (Matthyssens, 2007; Strauss and Corbin, 1998; Tashakkori and Teddlie, 1998).

**Case Studies**

The distribution processes of one Port wine company were investigated in France, the Netherlands and the UK. These markets were chosen on the basis that they account respectively for 27%, 16% and 11% of global sales and collectively for 54% of the total. A further consideration was that they are at different stages of distribution development. In the UK, the off-trade is concentrated among a limited number of companies (Hingley, 2005), characterised by a very efficient logistic system and the willingness to develop alliances with producers (Cotterill, 1997). In France, there is collaboration between producers and distributors (Messeghem, 2004) and strong concentration, with a few chains of hypermarkets and supermarkets controlling the market, but there remains some powerful specialized distribution. Distribution of alcoholic beverages in the Netherlands exhibits a dichotomy between supermarket chains and a distinctive type of independent specialist shop, with individual brands unlikely to be present in both distribution systems.

For each market, a distribution company was selected that had handled the same brand for several years, thereby avoiding a potential bias attributable to differences between brands. Following the recommendations of Yin (1994), a data collection protocol was set up, based on the theoretical background discussed in the previous section. Two pilot case
studies were conducted, and appropriate minor adjustments made to the eventual procedure. For data collection, a structured interview (Yin, 1994) was conducted with the CEO of each company, lasting between two hours and two and a half. The interviews were audio-recorded and transcribed, and the transcriptions subjected to conventional content analysis. The outcome was the eight hypotheses specified in the previous section, which were then tested quantitatively.

**Questionnaire:**

Two questionnaires were designed, for producers of Port and their distributors respectively. The sampling frame for the former was extracted from databases obtained from the Port Wine Producers Association and the Port Wine Institute; for the latter, the source was the Portuguese Distribution Companies Association. The outcome was a sampling frame comprising 52 producers and 49 distributors. A questionnaire, containing both Likert-scale items and closed questions, was subjected to three pre-tests before being sent to the commercial directors of the sampled companies.

The 61 valid questionnaires returned by 32 representatives of the producer companies and 29 of the distributors can be considered a methodologically sound outcome. Indeed, in an analysis of 165 research projects, Baruch (1999) found an average return rate of 55.6% (s.d. 19.7), noting a decrease to 36.1% (s.d. 13.3) in the case of questionnaires sent to top management. Denison and Mishra (1995) had previously suggested a return rate of 20% to 30% as the expected outcome of a survey of senior managers. Our level of response from commercial directors is very significantly above both parameters.
ANALYSIS AND RESULTS

Measurement

The dependent variable was categorised as either cooperation or non-cooperation. We followed a long tradition in relationship modelling by using binary models (Ai and Norton, 2003; Bucklin et al., 2008; Hoetker, 2007; Wang et al., 2008; Zidda et al., 2008) and probit regression analysis, using the EViews 6 software. For the statistical analysis, it is necessary to take into account that the value for cooperation may be nil in the case of some companies, and $\ln\left(\frac{P_i}{1 - P_i}\right)$ is not defined when $\pi$, the value of cooperation is equal to zero, ln being the natural logarithm. It is consequently not possible to use the ordinary least squares method (Aldrich and Nelson, 1984). According to Ai and Norton (2003), Allison (1999) and Norton (2004), the existence of a strong correlation between the dependent variable and the independent variables may invalidate the use of a linear regression model. To check for multicollinearity between independent variables, the correlation matrix of independent variables in Table 1 was constructed. The highest value being 0.249, between the independent variables ‘adaptation’ and ‘trust’, it is clear that correlations are in general low and multicollinearity is not a problem.

Table 1: Independent Variable Correlation Matrix
After five interactions, the model correctly predicted 83.6% of the observations, demonstrating that the results were very satisfactory. Good results were also achieved for sensitivity (dependent variable = 1 = cooperation) and specificity (dependent variable = 0 = non-cooperation). The estimated model is less satisfactory for the non-cooperation predictions, at 76.2%, but improves to 87.5% for the cooperation condition. Overall, the estimated equation is 18% better at predicting responses than the constant probability model. Table 2 shows that this change represents a 52% improvement over the correct prediction of the default model.

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<td></td>
</tr>
<tr>
<td><strong>8- Culture</strong></td>
<td>.173</td>
<td>-.018</td>
<td>.057</td>
<td>.065</td>
<td>.066</td>
<td>.072</td>
<td>-.047</td>
<td>1</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

<table>
<thead>
<tr>
<th>Estimated Equation</th>
<th>Constant Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dep=0</td>
<td>Dep=1</td>
</tr>
<tr>
<td>P(Dep=1)&lt;=C</td>
<td>16</td>
</tr>
<tr>
<td>P(Dep=1)&gt;C</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
</tr>
<tr>
<td>Correct</td>
<td>16</td>
</tr>
<tr>
<td>% Correct</td>
<td>76.19</td>
</tr>
<tr>
<td>% Incorrect</td>
<td>23.81</td>
</tr>
<tr>
<td>Total Gain*</td>
<td>76.19</td>
</tr>
<tr>
<td>Percent Gain**</td>
<td>76.19</td>
</tr>
</tbody>
</table>

Table 2: Sensitivity, Specificity and Correctness Analysis
Table 3 shows the results of probit analysis, based on the z statistic. The values of between 0.2 and 0.4 can be considered very good, according to McFaden (1976, p. 41), our model yielding a result of 0.367.

**Table 3: Probit Results**

- **Dependent Variable**: COOPERATION
- **Method**: ML - Binary Probit (Quadratic hill climbing)
- **Sample (adjusted)**: 161
- **Included observations**: 61 after adjustments
- **Convergence achieved after 5 iterations
- **Covariance matrix computed using second derivatives**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>z-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCM</td>
<td>0.261809</td>
<td>0.374017</td>
<td>0.699992</td>
<td>0.4839</td>
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<tr>
<td>Power</td>
<td>0.159572</td>
<td>0.411349</td>
<td>0.387924</td>
<td>0.6981</td>
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<td>Trust</td>
<td>0.886862</td>
<td>0.476713</td>
<td>1.860370</td>
<td>0.0628</td>
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<tr>
<td>Adaptation</td>
<td>0.931169</td>
<td>0.470357</td>
<td>1.979706</td>
<td>0.0477</td>
</tr>
<tr>
<td>Interdependence</td>
<td>-0.050725</td>
<td>0.426376</td>
<td>-0.118968</td>
<td>0.9053</td>
</tr>
<tr>
<td>Culture</td>
<td>-0.487863</td>
<td>0.246541</td>
<td>-1.978827</td>
<td>0.0478</td>
</tr>
<tr>
<td>Opportunism</td>
<td>0.041679</td>
<td>0.458453</td>
<td>0.090912</td>
<td>0.9276</td>
</tr>
<tr>
<td>Conflict</td>
<td>-0.860784</td>
<td>0.285824</td>
<td>-3.011588</td>
<td>0.0026</td>
</tr>
<tr>
<td>C</td>
<td>-1.057506</td>
<td>1.977235</td>
<td>-0.534841</td>
<td>0.5928</td>
</tr>
</tbody>
</table>

- **Mean dependent var**: 0.655738
- **S.D. dependent var**: 0.374017
- **S.E. of regression**: 0.397698
- **Akaike info criterion**: 1.110541
- **Sum squared resid**: 8.224532
- **Schwarz criterion**: 1.421981
- **Log likelihood**: -24.87150
- **Hannan-Quinn criter.**: 1.232597
- **Restr. log likelihood**: -39.27316
- **Avg. log likelihood**: -0.407729
- **LR statistic (8 df)**: 28.80332
- **McFadden R-squared**: 0.366705
- **Probability(LR stat)**: 0.000343

**Hypothesis testing: supply chain management**

H1 proposes that this independent variable promotes cooperation between channel members. There was almost complete unanimity amongst respondents in both sub-samples that supply chain management is indeed an important factor in the process of cooperation, 98% considering that such capabilities and competences conferred
competitive advantage. This finding confirms those of Hunt and Davies (2008), Koops et al. (2002) and Li et al. (2006).

Nevertheless, supply chain management capabilities did not prove to be statistically significant in relation to the development of a cooperation relationship.

Spekman et al. (1998) argued that there are differences in the way buyers and sellers view cooperation in the supply chain, while Kalafatis (2000) asserted that collaboration within the supply chain does not necessarily lead to cooperation. Several researchers have concluded that supply chain management capabilities are nevertheless one key element of the development of any form of distribution relationship (Christopher, 1998; Erevelles and Stevenson, 2006; Liker and Choi, 2004; Stock and Lambert, 2001). In the specific context of wine distribution, Spawton (2008) notes that consistency and reliability of supply are the norm, and articulates the concept of ‘saleability’ to define the basic functions that any wine producer needs to accomplish in its supply chain. The same conclusions had earlier been drawn in a study by Meissenheimer et al. (2001).

The respondents’ responses and the conclusions of other studies suggest that supply chain management capabilities are a sine qua non for effectively cooperative relationships to be established. One could argue, however, that they are essential but not necessarily a key precondition for the development of cooperation. Therefore, H1 is not confirmed.

**Hypothesis testing: power**
H2 postulates that the exercise of coercive power has a negative impact on cooperation. There was again almost unanimous agreement among respondents, 93% of all respondents stating that the exploitation of such power by a distribution partner severely damages a working relationship. This finding confirms Duarte and Davies (2004), Leonidou et al. (2008) and Lusch (1976). It also reflects the observable trend to concentration among distribution companies, with the creation of structures that can exert considerable power, sometimes in a coercive manner (Gaski, 1984), and generally as a means of gaining advantage in a relationship (Benton and Maloni, 2005; Chen et al., 2006; Hingley and Hollingsworth, 2003; Kumar, 2004).

Though it thus seems on first inspection that coercive power does negatively affect the relationship with distribution partners, the probit analysis failed to prove the existence of a determinant relationship. It may be that the exercise of coercive power is regarded essentially as an element that damages relationships, as suggested by Maloni and Benton (2000), resulting in arm’s length relationships involving little or no collaboration; or that, as Homburg et al. (2002) concluded, distributor power used coercively has a negative impact on the relationship with the seller, preventing collaboration let alone cooperation. Based on the results of probit analysis, H2 is not confirmed.

**Hypothesis testing: conflict**

H3 proposes that persistent and intense conflict is an obstacle to cooperation. Several authors have noted that conflict is relatively frequent in business relationships (Anderson and Narus, 1990; Gadde and Håkansson, 2001; Leonidou et al., 2008; Stern and Reve,
1980). Our study confirms these conclusions, three quarters of respondents mentioning conflict as a common element of distribution relationships. For more than half, conflict weakens the relationship and for more than one in six it hinders cooperation. There were no noticeable differences between the responses in the two sub-samples. Studies by Andrews and Tjosvold (1983) and Jehn (1997) found a connection between the intensity of conflict and the quality of a relationship. Cespedes and Corey (1990), Rangaswamy and van Bruggen (2005), Rosenbloom (2007) and Sharma and Mehrotra (2007) have come to the conclusion that measures need to be taken to diminish conflict, if a relationship is to become more collaborative. Tsay and Agarwal (2004) assert bluntly that conflict can seriously undermine efforts at cooperation.

Our probit results confirm that ongoing and intense conflict, emanating from one distribution partner, is negatively related to the development of cooperation among partners in the wine distribution chain, and H3 is therefore supported.

**Hypothesis testing: trust**

According to H4, the greater the level of trust the greater the propensity to cooperate. Respondents viewed trust in distribution partners a positive factor in cooperation, almost a third answering that conflict would affect it adversely. Our probit results suggest that companies indicating higher levels of trust in their distribution partners are more likely to pursue the development of a cooperative relationship. These results are consistent with those of Geyskens *et al.* (1998), Ring and Van de Ven (1992) and Song *et al.* (2008).
Our findings furthermore confirm a growing connection between trust and cooperation, with the former, as a key element of cooperation, growing in importance as its level increases. They are consistent with the conclusions of Gadde and Håkansson (2001), Inkpen (2005) and Nevin (1995), that trust tends to evolve through different stages into more profound relationships in which cooperation is facilitated. H4 is therefore supported.

**Hypothesis testing: interdependence**

Hypothesis 5 asserts that increased interdependence enhances cooperation. One respondent from each sub-sample claimed to experience a low level of interdependence with respect to distribution partners, confirming the comment by Håkansson and Snehota (1995) that “no company is an island”. On the other hand, while a quarter claimed a high level of interdependence, none considered it to be very high. These results probably indicate the existence of ‘dependence asymmetry’ (Geyskens et al., 1996; Gundlach and Cadotte, 1994; Kumar et al., 1995). In such cases, according to Hunt and Nevin (1974), the less dependent partner may use its position as a source of influence over the more dependent partner. Since the statistical results of our study did not prove to be significant in this respect, it is worth considering the conclusions drawn by Laaksonen et al. (2008): that the existence of a high level of interdependence, combined with a low level of trust, may result in opportunistic relationships. Thus, the simple fact of a high level of interdependence is not in itself a guarantee of cooperation, and H5 is not accepted.

**Hypothesis testing: adaptation**
According to H6, the greater the capacity to adapt the greater the willingness to cooperate. Adaptation emerges from our study as an important element of a relationship, almost 90% of respondents claiming to have adapted to a distribution partner and only 5% indicating a low potential for adaptation. Respondents also claimed to have adapted to distribution partners in the wake of conflicts, and considered that action to be positive. These results are consistent with those obtained by Dwyer et al. (1987), Stern et al. (1996) and Webb (2002).

Lukkari and Parvinen (2008) see the capacity for adaptation as a key element in partnership success. Madhok (1995) argued that repeated interactions strengthen the relationship and improve mutual adaptability. Adaptation is not, therefore, merely a response to market needs, but a means of developing or maintaining a valuable relationship. It demonstrates commitment (Hagberg-Anderson, 2006), making the difference between real and ‘rhetorical’ partnerships (Brennan et al., 2003). As Boddy et al. (2000) and Fang et al. (2008) have commented, partners in a cooperation relationship need to be highly adaptable and have the capacity to mould their company in response to change. It follows that adaptation requires a sound understanding of the partner, as well as a high level of dedication and commitment. Thus, H6 is supported.

**Hypothesis testing: culture**

H7 posits that the fact of a foreign sales representative dealing with customers does not constrain cooperation. The results of our probit analysis confirm that the ‘presence of a foreign sales representative’ is indeed not a constraint. Several research studies have
demonstrated that national culture influences marketing channels relationships (Griffith et al., 2000; LaBahn and Harich, 1994). Our case studies yielded different results in the three countries (France, the Netherlands and the UK), indicating that the cultural factor does indeed play an important role. H7 is therefore accepted.

**Hypothesis testing: opportunism**

H8 asserts that opportunistic behaviour has a negative impact on the development of cooperative relationships. More than three quarters of the respondents thought that it did constitute a threat for relationships, thus confirming studies by Berthon et al. (2003), Das (2004), Eyuboglu et al. (2003), Hunt and Morgan (1994) and Provan and Skinner (1989).

Our probit results proved not to be statistically significant. Therefore, despite being accepted as a threat to relationships, opportunism does not appear to impede the development of cooperation relationships. In fact, it seems to be regarded essentially as a factor that negatively affects buyer-seller relationships, and not as one that influences cooperation. It is therefore evident that companies focus mainly on the control of reduction of opportunistic behaviour, which does prevent partners from getting to know each other well. One can argue that opportunism constitutes a barrier preventing relationships from progressing to a more collaborative stage. H8 is therefore rejected.

Based on our results, we present a cooperation matrix in Figure 2:
Following our results, we considered three constructs affecting cooperation: trust, adaptation and conflict.

**Dependence** relationships are characterized by relatively low trust, high adaptation and ongoing, intense conflict. In these relationships, actors are dependent upon their partner. Adaptations and compromises, often with respect to specific assets, are obtained through intense and continuing conflict, underlying relationships with low trust.

**Arms Length** relationships: actors have low trust in each other, low adaptation capacity and conflict is intense and permanent. Arms length is the result of a poor relationship between participants. These relationships constitute a transitory stage. In fact, they cannot be maintained for long: either they develop to a further stage or they will ultimately break down.
**Transaction** relationships are those more frequent. Actors trust each other, conflict is less, but adaptation is low. Several of these relationships are collaborative, but not cooperative.

**Cooperation** relationships are characterized by high trust, high adaptation and low conflict. The actors generally reach this stage in stable and long relationships. The evolution towards cooperation requires historical knowledge between partners and a sound relationship with controlled conflict, and based on adaptation and trust.

Opportunism, as a threat to relationships, is present (with varied intensity) across different relationships. Also, conflict, adaptation and trust, are involved in many different relationships, the difference being the level of intensity.

Relationships evolve as companies get to know each other and adapt to each other. In order to achieve stable and lasting relationships, is necessary to overcome several barriers, and for that reason, time plays an important role.

Not all relationships can, or should, evolve into cooperation, nor can a company develop cooperation in all its relationships. Even if cooperative relationships with distributors constitute a competitive advantage, they should be managed carefully and in a broader corporate context. There is a danger that investing too much in the relationship with some partners, may result in a deterioration of others in resources and time demanded by cooperation, these relationships may be a promising research field, with regard to developing cooperative skills for transaction relationships. Sound and productive
transaction relationships could be developed as a result of such research. Therefore, cooperation might be considered as an important means of developing skills and resources. Indeed, it might be more productive to prioritize further collaboration in existing transaction relationships, rather than to invest in more cooperative relationships.

CONCLUSIONS

The Port wine industry is experiencing a period of great transformation. Bridge (2008, p.22) suggests that “the golden years when the region was well known and consumers faced little choice have passed”, and that “the emergence of new wine regions, combined with an increasingly complex and dynamic choice and a much more fickle consumer means that nothing can be taken for granted”. He concludes that “in this new world, demand must be created every day and shelf space in wine shops justified”. The distribution process thus plays a major role in every Port producer’s strategy.

Fifty-seven of the 61 respondents claimed to be making use of multiple distribution channels. Responses show, however, that the internet is a rather scarce vehicle for the distribution of Port manufacturers’ output, confirming the findings of Rubenstein (2008) and Zidda et al. (2008). Almost 60% of respondents mentioned direct selling at the cellar, confirming a general trend in the development of wine tourism (Spawton, 2008). This tactic represents simultaneously the development of an alternative channel of distribution
and an investment in the emotional relationship with the brand (O’Mahony et al., 2005), which is as applicable to Port as to wine in general. Spawton (2008) has discerned common themes in examples of successful wine tourism ventures: strong and established brand equity in the producing region, close proximity to a tourism destination, and good transport links. In the case of Port producers, all these elements are in place.

Only four of the 32 commercial directors who returned our questionnaire said their companies were involved in such forms of cooperative relationship as ECR (efficient consumer response), CPFR (collaborative planning, forecasting, and replenishment) or category management. This reality probably reflects the limited capacity for structured cooperation in the Port wine industry, for several researchers have concluded that it demands resources that most companies lack, especially the smallest (Dapiran and Hogarth-Scott, 2003; Lindblom and Olkonen, 2008)

Spawton (2008) observes that wine, because of its high perceived value, has provided supermarket chains with much higher margins than those they achieve in other categories of goods, and therefore plays an important role in their merchandising strategy and market profiles. To work successfully with these very large market players demands the willingness and capacity to respond to the requirements they impose. Considering the immense power exerted by the supermarket chains, an imbalance is to be expected in their relationships with the Port producers, who must strive to reach a critical size if they are to survive. Not surprisingly, 69% of responding commercial directors in the producer sub-sample recognised the need to build added value into their pricing structure, to cope
with the promotional initiatives demanded by supermarket chains. This finding confirms that by Raposo and Sequeira (1998).

Taking into account the strategic alternatives available for the distribution of Port, it seems important that the industry diversifies its options by embracing multiple channels. Spawton (2008) has suggested that cooperation between wine producers and its distribution partners has been the means to overcome the challenges of concentration and the barriers to market access. Working relationships evolve as companies come to know each other and adapt to their respective styles. The achievement of stable and long-lasting relationships poses several challenges and, for that reason, time is an important dimension.

Not all relationships can, or should, evolve into cooperation; nor can a company achieve cooperation in all its relationships. Even if cooperative relationships with distributors are a competitive advantage in themselves, they have to be managed carefully and in a broader corporate context. There is a danger that the amount of resources and time demanded by investment in the relationship with some partners could reduce the amount available for other relationships. The management of more collaborative relationships could be a promising field for further research, in terms of the cooperative skills needed for the transactional mode, which might form the basis of templates for sound and productive relationships. Cooperation might thus be considered an important means of developing the necessary skills and resources. Indeed, it might be more productive to
prioritize further collaboration in existing transactional relationships than to invest in more cooperative relationships.

LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Our study has focused on buyer-seller relationships in the Port wine industry, but its findings are potentially applicable to other sectors. It would be worth studying in greater detail the various alternative forms of collaboration alternatives in transactional relationships. An investigation could also be undertaken into the connection, found in our research, between trust and interdependence in cooperative relationships.

In the context of multi-channel distribution and the adaptation of the producers of Port to the requirements of their retail partners, it would be valuable to research whether or not those are voluntary, positive decisions on the part of the producers or are imposed on them by the supermarkets and hypermarkets. Such a study could shed light on what Brennan et al. (2003) and Heide and John (1992) refer to as ‘over-adaptation’ to a retailer’s expectations, creating dependence and loss of control.

REFERENCES


