

# INTERNET AND INTER-FIRM RELATIONS IN THE BUSINESS TRAVEL MANAGEMENT DISTRIBUTION CHAIN

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## Abstract

*Business travel nowadays represents the second largest corporate cost and corporate travel managers are increasingly being pushed to better control and reduce business travel expenses mainly through the use of online Business Travel Management (BTM) solutions. However, internet advances and applications have resulted in profound changes in the structure, dynamics and inter-relations among the players in the BTM market, travel distribution players such as principals (hotels, airlines etc), intermediaries and business travellers' companies. As the impact of the internet in the B2B inter-firm relations has received little attention, this paper aims to investigate the impact of online BTM solutions on the BTM – businesses relations. So, the literature examining the impact of the internet on inter-firm relations is reviewed and a theoretical model is developed. The model is tested by gathering data from businesses using online BTM solutions and findings provide useful practical and theoretical implications.*

*Keywords: Business Travel Management, Internet tools, inter-firm relations, impact.*

## **INTRODUCTION**

Nowadays, despite adverse events (such as terrorist attacks, wars and economic recession) the global value of business travel expenditure is increasing reaching in 2003 the level of US\$489 billion (WTTC 2003, p. 16). As the business travel has become the second largest corporate cost, corporate travel managers are increasingly being pushed to better control and reduce business travel expenses. To this end, companies are developing stricter and specific processes and policies, but the use of online Business Travel Management (BTM) solutions has appeared to be an effective way to achieve this. Thus, although companies with high travel expenditures traditionally used specialised business-corporate travel agencies, nowadays they are immigrating to online BTM solutions that are developed either by traditional travel agents that want to reintermediate their business model or by independent software companies that want to enter the lucrative business travel market. Online BTM solutions aim to streamline and enhance the monitoring of the travel procurement processes of their clients in order to ultimately decrease the latter's travel expenditures while enhancing the provision of travel services. However, online BTM solutions are dramatically changing the dynamics within the tourism distribution chain as well as the inter-relations amongst travel distribution players such as principals (hotels, airlines etc), intermediaries and business travellers' companies.

Although the benefits and impacts of Internet fostered 'e-transformation', 'dis-intermediation' and 'reintermediation' have been widely discussed within the generic literature (Malone & Yates & Benjamin 1987) as well as the B2C tourism literature (Sigala, 2003), their impact in the B2B inter-firm relations in the tourism distribution chain have received little attention. Moreover, although practitioners are realising the impact of Internet use on building profitable long-term relationships with trading partners, this topic has also received little consideration. On the other hand, a high quality B2B relationship is particularly valuable in the business travel service sector, because credibility of BTM providers and previous experience with them are core parts of the intangible nature of their services (Claycomb & Martin 2001). Indeed, customers' perceptions of service quality are often commensurate with their perceptions of the relationship with the service provider (Patterson & Smith 2001). To that end, this paper aims to investigate the impact of online BTM solutions on the BTM – businesses relations. To achieve that, first the literature examining the impact of the internet on inter-firm relations is reviewed and then a theoretical model is developed. The model is tested by gathering data from UK, Greek, and Cypriot businesses using online BTM solutions and findings provide useful practical and theoretical implications.

### **1 BUSINESS TRAVEL MARKET AND THE INTERNET**

Internet advances and the proliferation of their travel applications had a dramatic impact on BTM. On the one hand, in their attempt to disintermediate traditional players in the travel distribution chain as well as drive and develop direct relations with their customers on their websites, principals (airlines scheduled, charter or low cost, hotels, car rental companies, train operators etc) are changing their policies mainly in the reduction and recently on the elimination of commissions paid to travel agents. As a result, BTM agencies have to change their business model and pricing strategies by charging their customers fees for their services and working on behalf of them as negotiators for best possible deals rather than being a distributor of the principal (Mason 2002). Moreover, instead of focusing only on big corporate clients, BTM agencies are also increasingly getting interested in the small and medium enterprise market segment by launching dedicated services such as that of Amadeus/e-Travel. Lastly, several BTM agencies have been also adopting information and communication technologies for streamlining their processes and adopting more flexible structures (Bray 2002).

On the other hand, Internet developments fostered the mushrooming of travel cyberintermediaries and of their business models, as well as enabled an increased online transparency amongst principals'

products and their prices. Consequently, the bargaining power of business travellers has substantially increased, new cyberintermediaries such as Expedia Corporate Travel have entered in the BTM market, while traditional BTM agencies have developed a 'click and mortar' presence in order to survive or reintermediate their business model. In general, the biggest challenge for BTM agencies nowadays is the emergence of business travel e-procurement solutions and online self-booking business travel systems that are primarily developed and used either by independent software companies (e.g. GetThere in the US and KDS in Europe) or GDS (e.g. Highwire by Galileo and Trip Manager by Worldspan, who also want to develop reintermediation strategies for sustaining and enhancing their distribution revenues) or even outsourced to BTM agencies for developing their technological platform. In other words, online BTM solutions have furthered blurred the inter-firm relations and dynamics within the travel distribution chain. These internet based BTM solutions enable companies to take advantage of special business fares and at the same time, they provide controls to track savings, enforce, monitor the obedience and prevent abuses of the travel policies (Bray 2002).

Overall, as Internet developments have increased competition and volatility within the BTM market, the way that online BTM solutions are changing and affecting the BTM-businesses relations has not been examined yet. However, research in this area is crucially important nowadays since it can provide very useful practical information and insights on how BTM agencies can exploit e-procurement BTM systems for enhancing and personalising their travel services, increasing the loyalty of their corporate clients and so, locking them in. Thus, the examination of inter-firm relations amongst online BTM agencies and their corporate clients as a result of web-based BTM solutions is the aim of this research whose model and findings are developed as follows.

## **2 INTERNET AND INTER-FIRM RELATIONS**

Although previous literature concentrates on examining how to develop competitive online business models and designing attractive websites, more recent research is focusing on investigating the impact of the Internet on the market structure, business models and buyer-seller relations (Goldsby & Eckert 2003, Sigala 2003, Berthon & Ewing & Pitt & Nande 2003). Preliminary findings however also suggest that the Internet's impact may differ from industry to industry and from business to business. In this vein, limited research into the internet's impact on B2B relations exists, while further research into the specific impact of online BTM solutions in the BTM-businesses relations is granted. To achieve that, a first step is to review the divergent views found in the literature regarding the impact of the internet on buyers-sellers relations.

Internet-based technologies provide effective and efficient ways of conducting business. On the one hand, buyers can easily and rapidly: gather, analyse and compare information about available suppliers and their products and services; effectively negotiate with suppliers procurement terms and prices; efficiently transfer and place their order fulfilments; and access after-sales services 24 hours (Berthon et al. 2003). On the other hand, by conducting business electronically, sellers can efficiently gather and effectively data mine and analyse customers' information about marketing, sales and services activities with the aim to develop more direct, personalised and long-term relations with their customers. However, the pace of change in the e-commerce arena has been so rapid, making it difficult for firms to examine the advantages and disadvantages of different ways of managing inter-firm relationships in the dynamic environment of B2B e-commerce. The importance of managing inter-firms relationships emerged when many businesses learnt that they must collaborate with partner firms or even competitors (giving rise to co-opetition models) in order to compete against others (Sigala, 2004). Theories that have been used in order to explain inter-firm relations either online or offline include the transaction costs economics theory, the social exchange theory, the inter-organisation theory and industrial network theory (Mattson 1985, Clemons & Reddi & Row 1993, Malone et al. 1987). In general, research on buyer-seller relations has mainly been addressed from two perspectives (Sigala & Maroudas & Tsartas 2004): economic and socio-psychological. This study aims to combine both perspectives. In the economic approach, transaction costs theory has been

extensively used to explain the existence of different inter-firm organisational forms (Rindfleish & Heide 1994). From a sociological perspective insights from social exchange theory have been applied to understand: why and how parties engage in exchange relationships; the impact of power sources; and the exercise on the compliance of supply chain partners (Gasky 1984). Transaction costs economics has also been a basic tenant of much information systems literature (Malone et al. 1987, Clemons et al. 1993).

Elements that have been found to affect the development of inter-firm processes and exchange of inter-firm relations have been generally categorised as technical/structural and social bonds (Perry & Cavaye & Coote 2002, Buttle & Ahmad 1999) or process and relation integration (Robicheaux & Coleman 1994). To synthesize the literature, the terms of 'social' and 'structural' bonds are also used in this study to categorise the most heavily used elements in the literature. Social bonds are defined as investments of time and energy that produce positive interpersonal relationships and collaborative practices between the partners, although these can range from formal, organisational contacts through to informal, personal ones. In contrast, structural bonds are forged when two organisations adapt to each other in some economic or technical ways such as product or process adjustments, for example, investments in assets dedicated to their relationship such as e-procurement systems. Specifically, process integration has been defined as the extent to which the various stages in the business process are integrated and information on current processes is being exchanged (Robicheaux & Coleman 1994).

The general consensus in transaction cost economics is that three contextual factors can affect the type (structural or social/relational), dependence and dynamics between inter-firm relations. First factors of asset specificity and availability of alternatives resources: the higher the asset specificity and the fewer the alternative resources the higher the dependency of a firm on its partner. Asset specificity can be defined as structural, specific and high investments (e.g. IT investments or process changes) that are not redeployable outside the relation. However, the Internet and web-based BTM partners use the same open set communication protocols, software and standardised information communication structures. Overall, as online BTM solutions entail minimal expenditures (i.e. low asset specificity) and high partner flexibility in terms of 'plug and playing' with another online BTM agency (i.e. numerous alternatives), the Internet had a positive impact on developing more 'equal' BTM-businesses relations. However, the time, cost and change management cost for using online BTM systems are a structural bond. The deployment of online tools requires a lot of preparation from the client perspective (clear travel policies, standard booking procedures, information workflow mapping, job redesign and culture change) and this use to put off several companies in adapting such systems (Attaran & Attaran 2002). Generally, one could claim that BTM agencies try to lock-in their clients through 'hidden' online BTM systems' costs, such as training and familiarisation on their software and interface, customisation of their solution to company's needs and collection and analysis of transaction data in order to better learn and meet their customers' needs.

Uncertainty 'the difficulty of making accurate predictions about the future' (John & Weitz 1998) can also impact on the formation of social and structural elements that may bond and impact inter-dependence between firms. Uncertainty relates both to the environment and to the behaviour of the exchange partner (Heide & John 1990). The first dimension, relates to how difficult it is to predict market conditions, mainly because of increased online market and price transparency as well as because of the diffused difficulty in foreseeing the emergence, future, stability and impact of online BTM solutions. However, quite interesting market conditions and uncertainty (such as SARS and 9/11) did not influence companies' propensity to use online BTM solutions (Mason 2002). On the other hand, the fact that the market of online BTM solutions is still new and emerging without a clear market standard and leader makes corporate clients sceptical on their decision to commit early on one platform. Moreover, the ongoing distrust of online BTM users in the transfer of crucial organisational data through the internet and in data sharing with a third party also act as inhibitor in BTM diffusion and use. The difficulty in estimating the behaviour of the exchange partner is defined as relational uncertainty (or opportunism in the transaction cost theory) and highlights the need of BTM agencies to

develop and foster strong relational bonds (such as trust, satisfaction, commitment and good communication tools) in order to develop, maintain and foster long-term collaborative relationships with their corporate clients (Sigala 2004).

Overall, it becomes evident from this analysis that social bonds are not necessarily independent of structural bonds, that open technological systems and applications can significantly impact the significance and impact of the interplay between social and structural bonds and so ultimately the inter-firm relations and dynamics. So, depending on the situation and context, social bonds may be used for reinforcing, supporting and/or inhibiting structural bonds and vice versa. For example, firms having low levels of process integration are less likely to pose emphasis on relational integration, as well as when operational processes are not shared firms have little to discuss and develop social bonds. On the other hand, when operational and structural integration is high, the structure and degree of common decision-making and communication processes and so of relational integration can be high and have a greater impact on the outcomes of the relations. In this vein, a firms' dependence on another can be centred on the presence of switching costs that 'lock in' it into the relationship. These switching costs can be created by investments in the form of structural bonds and derived from how satisfied an exchange partner is with the other's performance. More generally, social bonds may need to be in place before knowledge-based structural bonds develop while contractual arrangements between parties in a relationship can be an antecedent to trust (Sigala 2004, Turnbull & Wilson 1989). In general, however, opportunities for structural bonding emerge as a result of social bonds being in place (Buttle & Ahmad 1999). How these bonds are affected by internet use needs to be investigated and provides the core justification for this study.

## **2.1 Developing the theoretical model and the research hypotheses**

The above literature suggests that B2B internet use may facilitate the generation and exploitation of new business opportunities as well as enhance and/or transform inter-firm relationships, resulting in more efficient business and processes. Overall, most literature is conceptual and positive about the internet's potential for facilitating relationships. On the other hand, the limited empirical studies are divided about the potential of internet-facilitated B2B relationships. An empirical study found effective communication, trust, mutual understanding, share of benefits/risks and commitment being important components in relationships between ASPs and their corporate clients (Sigala 2004). However, another study in the adoption of e-tourism found that consumers' lack of control over their own personal information and how it will be used is a disincentive to trust businesses and to engage in B2C relational exchanges (Christou & Kassianidis 2002). Indeed, establishing a relationship with exchange partners may be harder to achieve in an internet environment because alienation reduces the personal social interaction that occurs between individuals in a marketing relationship. When firms begin to adopt the internet in their operations, the attempt to coordinate business activities may be accompanied with distrust, ambivalence and open resistance by exchange partners (Sigala 2004). However, most of what is known about the potential for internet-facilitated relationships seems to be anecdotal, experiential, ad hoc and descriptive. Moreover, there has been no empirical attempt to test such relationship-facilitating aspects of internet use in a B2B context. Therefore, this research proposes a comprehensive theoretical model (Figure 1), that summarises the relationship-facilitating aspects of web-based BTM solutions in a B2B context.

Specifically, the extant literature has speculated on five separate relational bonds without distinguishing them as structural and social bonds, but no empirical evidence exists about how the internet influences them. As shown in Figure 1, social bonds include trust (Morrison & Firmson 2000) and satisfaction (Shepherd & Abkowitz 2001) and structural bonds include communication (Hoffman & Novak 1996) and dependence (Poon & Swatman 1996). Constructs were included in the proposed model only when empirical evidence of their impact on inter-firm relationships was found. The dominant relationships between these constructs that have been studied in a non-internet environment form the basis of this model.

Analytically, the importance of communication for holding a relationship together has been stressed in the literature as the glue that holds together a channel of distribution. Communication and the exchange of information is also characterised as the lifeblood of collaborative inter-firm relations (Sigala et al. 2004) According to the social exchange literature, effective communication between partners is essential to achieve the intended objectives, as it leads to better informed parties, which in turn should make each party more confident in the relationship and more willing to keep it alive (Anderson & Weitz 1989). In turn, dependence is created by partners' relationship investments, that is, asset reciprocity that holds the relationship partners together and creates barriers to leave the relationship because of the high costs involved. The greater the interdependency, the stronger is the relational behaviour. Dependency between organizations results from a relationship in which participants perceive mutual benefits from interactions (Bensaou & Venkatraman 1995). Mutual dependency between participants increases when the size of the exchange and importance of exchange are high, when participants consider their partner the best alternative, and when there are few alternatives or potential sources of exchange (Ganesan 1994, Heide & John 1990, Rai & Borah & Ramaprasad 1996).

Trust, one of the most frequently quoted social bonds, is viewed as an essential ingredient for successful relationships (Sigala 2004, Sigala et al. 2004) and concerns exchange partners' confidence and reliability. Trust, an inter-firm relationship quality feature, is conceptualised as 'the firm's belief that the other company will perform actions that will result in positive outcomes for the firm, and it will not take unexpected actions that would result in negative outcomes for the firm' (Gulati 1995). Trust emerges when partners share a variety of experiences and increased their joint action and participation in the relation (Fitzgerald & Willcocks 1994, John & Heide 1990), understand one another's objectives and goals (Anderson & Weitz 1989, Gulati 1995, Moorman & Deshpande & Zaltman 1993, Rai et al. 1996) and when there is an increased commitment and so reduced uncertainty regarding another's behaviour (Bensaou & Venkatraman 1995, Henderson 1990, Stank & Cum & Arango 1999). Hence, the inputs that generate trust are regular interaction, communication, cooperation, joint actions and decision making, and closeness between the parties to a relationship (Sigala et al. 2004).

Satisfaction is another social bond frequently mentioned in the literature (Sigala et al. 2004). Rather than capturing the transient and encounter-specific evaluations and emotions, applied research tends to measure satisfaction as the buyer's general level of satisfaction based on all experiences and activities with the firm. Thus, satisfaction can be defined as an affective response, which is an end-state as the result of appraisals including disconfirmation and perceived performance. Inter-firm relationships' elements such as trust, communication, commitment, dependence and joint activities have been found as antecedents of the quality of inter-firm relationships and of the overall satisfaction of relationships; partners (Sigala et al. 2004, Sigala 2004, Rousseau & Sitkin, Burt & Camerer 1998, Zineldin & Jonsson 2000).

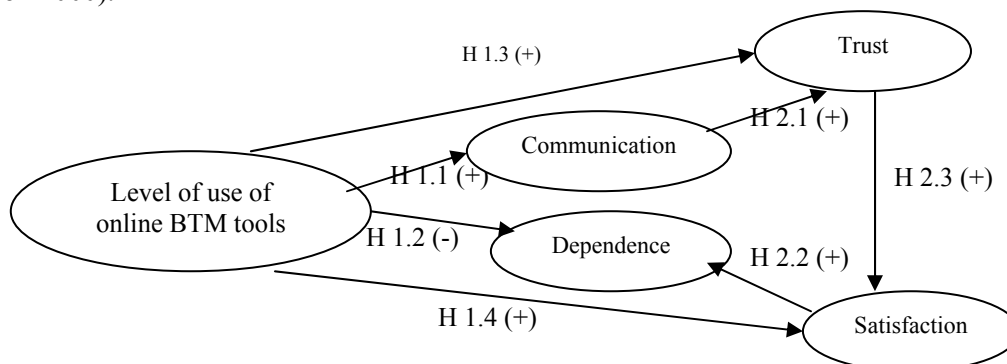


Figure 1. Theoretical model and hypotheses for the impact of online BTM tools on BTM agencies- businesses relations.

The interactivity, convergence and customisation elements of the internet can not only enhance the interchange of information between partners, but also overcome time, technological platform (PDA, PC, mobile phone etc) or geographic limitations as well as multimedia transmission. It is hypothesised that: H<sub>1.1</sub>: the level of use of online BTM systems is positively associated with communication.

The internet may also empower buyers to find lower price suppliers with less search costs and thus serve as a cost-effective alternative form of information-gathering for businesses, enabling the substitution of the exchange relationship (Clemons et al. 1993). That is, communication efficiencies through the internet may increase the number of suppliers with which a buyer firm can effectively and efficiently exchange. Thus, emerging internet-based inter-firm networks should reduce supplier power (Malone et al. 1987) and a firm's dependence on a single supplier or a single buyer may be reduced (Goldsby & Eckert 2003). Thus, it is hypothesised that: H<sub>1.2</sub>: the level of use of online BTM systems is negatively associated with dependence.

Regarding the impact of internet use on exchange partners' trust in each other, the following can be argued. Although the internet environment presents relatively few cues by which trust on partners or on electronic transactions can be assessed, studies and system providers nowadays highlight some practical tools for enabling and providing enhanced secure online transactions. The third hypothesis is formed as follows: H<sub>1.3</sub>: the level of use of online BTM systems is positively associated with trust.

The internet has the potential to increase customer satisfaction levels, particularly through customisation and personalisation of the technologically delivered service. However, the reduction of involvement of people in the service process is considered to be detrimental to customer satisfaction because some customers still prefer face-to-face rather than electronic contacts. However, preliminary findings in the online BTM market have shown that online BTM systems' users are satisfied with the Internet use even for the booking of complicated travel itineraries that might have required personal, face-to-face contact amongst business travellers and travel agencies staff (Mason 2002). It is hypothesised that: H<sub>1.4</sub>: the level of use of online BTM systems is positively associated with satisfaction.

Three further hypothesised relationships derive from empirical studies regarding the interaction of the relational bonds in offline inter-firm relationships. Studies reveal communication as a major precursor of trust. Communication is treated as an antecedent of trust, conflict and business understanding (Sigala 2004, Bensau & Venkatraman 1995, Henderson 1990). Communication fosters trust by assisting in the resolution of disputes, by aligning perceptions and expectations and by negotiating joint performance metrics and systems for sharing benefits and risks. In this vein, trust amongst inter-firm relations significantly enhances satisfaction with business performance and so, trust is a critical determinant of satisfaction (Stank et al. 1999, Gulati 1995). Finally, when the outcomes obtained from the exchange relationship are satisfying and highly valued, then there is a higher level of dependence between exchange partners (Heide & John 1990, Sigala 2004). So, higher levels of dependence are associated with higher levels of satisfaction. The three final hypotheses regarding the interrelations amongst relation bonds are as following: H<sub>2.1</sub>: Internet-facilitated communication will be positively associated with trust. H<sub>2.2</sub>: Trust is positively associated with satisfaction in an online BTM system. H<sub>2.3</sub>: Satisfaction is positively associated with dependence in an online BTM system.

### **3 RESEARCH METHODOLOGY**

This study aimed at examining the inter-firm relations amongst corporate business and their BTM agencies when using internet based BTM systems. To achieve this goal, the literature was reviewed and a model was proposed. For operationalising the constructs of the model, multi-items scales based on past research were used for all constructs except the one for the level of use of online BTM tools (Table 1). The scale measuring the level of use of online BTM tools reflected the extent to which the online tools are used for BTM functions. As there was none scale measuring this construct, the study used in-depth interviews with business travel managers and BTM agencies as well as trade

publications for identifying the various internet-supported BTM functions. A seven-point semantic differential format was used for 6 measurement items. The scale had a reasonable level of reliability ( $\alpha = 0.68$ , variance = 0.41) reflecting the care with which it was constructed. The scale measuring communication reflected the credibility, accuracy, frequency, timeliness and meaningfulness of information exchanges. The scale had a seven-point semantic differential format and the items used were adopted from Anderson and Narus (1990). The scale achieved a high level of reliability ( $\alpha = 0.84$ , variance = 0.73). The dependence construct was measured with respondent's perceptions of their need to maintain the relationship with the BTM agency to achieve desired goals. A seven-point semantic differential format was used for the items adopted by Ganesan (1994). The scale achieved a high level of reliability ( $\alpha = 0.83$ , variance = 0.77). The satisfaction scale measured an affective reaction to the outcomes achieved in the relationship. The construct was measured using a seven-point semantic differential format and the items used by Dwyer, Schurr and Oh (1987). The scale achieved a high level of reliability ( $\alpha = 0.87$ , variance = 0.85). The trust scale measured the confidence a party has in the honesty and integrity of their partner. The scale had a seven-point format and used the items adopted from Morgan and Hunt (1994). The purified scale displayed a high level of reliability ( $\alpha = 0.84$ , variance = 0.81).

<b>Level of use of online BTM tools</b>	<b>Communication</b>	<b>Dependence</b>
To what extent do you use the following online BTM services/tools: 1. View and download travel itineraries 2. Make online bookings 3. Make customised travel itineraries and arrangements 4. Buy online travel products 5. Cancel and/or change travel itineraries 6. Establish travel policies and rules for future travelling plans	1. Accuracy of communication through online BTM tools 2. Credibility of communication through online BTM tools 3. Relevancy of communication through online BTM tools 4. Reliability of communication through online BTM tools 5. Timeliness of communication through online BTM tools 6. Completeness of communication through online BTM tools 7. Adequacy of communication through online BTM tools	1. Our relationship with the BTM agency is more crucial to the future success of our business 2. we are more dependent on the BTM agency than before adopting the online BTM tools 3. The BTM agency is more important to the operation of my business 4. The BTM agency plays a more important role in my business
<b>Satisfaction</b>		<b>Trust</b>
Describe your feelings with regard to the outcomes achieved in this relationship: 1. Dissatisfied/Satisfied. 2. Sad/Happy. 3. Uncomfortable/Relaxed. 4. Contented/Disgusted. (Reversed) 5. Exploited/Rewarded.		1. This BTM is perfectly honest and truthful. 2. This BTM can be trusted completely. 3. This BTM is always faithful. 4. This BTM cannot be trusted at times. (Reversed).

Table 1. Scales for construct measurement

For testing the model data were gathered from the corporate travel managers and travel procurement officers of businesses located in the UK, Greece, and Cyprus. This was a purely convenience sample simply available to the researcher by virtue of its accessibility. Contact and address details were found in the Internet and the business travel trade press (the Travel Trade Gazette and the Business Travel World, two magazines focusing on the business and corporate travel market). Overall, 550 questionnaires were posted or e-mailed to appropriate people and with a followed-up communication after three weeks 194 questionnaires were received giving a response rate of 35.2%.

## 4 ANALYSIS AND DISCUSSION OF THE FINDINGS

Respondents represent a varied sample of businesses using online BTM tools: 23% of companies have been using online BTM tools for more than 5 years, 48% between 1 – 4 years and 29% for less than a year (average duration of the relationship with online BTM agencies 3.4 years); while a great majority of companies (67%) employed more than 100 employees that they usually travel and need travel arrangements. However, also a substantial number of companies (11%) used the online BTM tools for making the travel arrangements for less than 50 of their employees.

The sample size of 194 cases satisfied the general rule of thumb that suggests that sample sizes as low as 100 are adequate, with 200 or more recommended as safe for structural equation modelling (Anderson & Gerbing 1988). However, a sample size of 194 cases was not sufficient to support a structural equation model at the level of complete disaggregation of measured variables (by using all variables as indicators for each construct). Hence, the factor scores were used as single item indicators and a path analysis was performed, applying the maximum likelihood estimates (ML) method (Joreskog & Sorbom 1996). Initially, one-factor congeneric models for each set of items were estimated. Sample covariance matrix were used as input into AMOS program to estimate the proposed and competing models (Joreskog & Sorbom 1996). The one-factor congeneric models not only provided a first test of item reliability and validity, but also served as a means of data reduction in order to obtain a manageable number of manifest [or composite] variables which can be used in subsequent structural equation models (Holmes-Smith & Rowe 1994). Standardized residuals were used to identify and later remove problematic indicators. This scale purification led to a second stage of full structural modelling where a structural model with all five constructs and their indicators was estimated. The constructs were represented as correlated first-order factors. The indicators were related only to their posited construct. The chisquare statistic of the model was very small (1.004) and insignificant ( $P = 0.303$ ), indicating a good fit. The other fit measures were indicative of adequate fit to the sample data (goodness-of-fit index [GFI] = 0.97, adjusted goodness-of-fit index [AGFI] = 0.96, Normed fit index [NFI] = 0.98, root mean square residual [RMR] = 0.017). The standardized parameter estimates for the hypothesized paths are reported in Table 2. Four out of the seven hypothesised relationships were statistically significant while the remaining three hypothesised relationships were rejected.

Hypotheses	Standardised regression weights	S.E.	C.R.
H 1.1	0.390**	0.071	5.618
H 1.2	0.061	0.060	0.947
H 1.3	-0.020	0.077	-0.305
H 1.4	-0.059	0.049	-1.338
H 2.1	0.479**	0.075	6.546
H 2.2	0.894**	0.048	17.76
H 2.3	0.672**	0.058	10.99

Table 2. Standardised estimates of the proposed model (\*\*  $p \leq 0.01$ )

With respect to the first set of hypotheses (H 1.1, H 1.2, H 1.3, H 1.4), the level of use of online BTM tools was found to be positively and significantly associated with communication ( $\beta = 0.39$ ). However, H 1.2, H 1.3 and H 1.4 were not supported as their standardised regression weights are very small and critical ratios are less than  $\pm 1.96$  indicating that the relationships do not exist. So, the level of use of online BTM tools was not associated with trust ( $\beta = -0.020$ ), satisfaction ( $\beta = -0.059$ ) nor dependence ( $\beta = 0.061$ ). However, all three hypotheses about the interaction of structural and social bonds were supported.

Analytically, this study revealed that online BTM tools enhance BTM agencies- businesses bonding mainly through the enhanced inter-firm communication that is enabled through the internet (H 1.1). So,

although online BTM tools were not found to significantly affect and enhance inter-firm constructs such as trust, satisfaction and dependence, the impact of former on partners' communication was evident. Coupled with the fact that the following sets of hypotheses were supported (i.e. communication enhances trust, trust in turn enhances satisfaction, and finally satisfaction enhances dependence and bonding amongst partners) it becomes evident that BTM agencies should consider and exploit online tools for enhancing communication with their clients as the most vital and critical element for developing competitive business models, enhancing their value proposition and locking-in their clients. In other words, due to the mediating effect of communication, a BTM agency that can manage to use the internet effectively and efficiently to communicate with its corporate clients, will at the same time enhance trust and satisfaction.

Many BTM agencies are currently developing and / or operating customer contact services in order to enable and support their communications with their customers. BTM agencies should also exploit the ubiquitous nature of the internet in order to provide customer-centric and seamlessly integrated multi-channel communications (PDA, PCs, mobile phones, call centres etc) to their customers. Concerning, the content of continuous communication that BTM agencies should provide this could vary from travel products and prices (e.g. updates on latest offers, cancellation of flights and change of itineraries etc) to cost management of travel expenditures (e.g. preparation and dissemination of detailed reports analysed per individual customer regarding travel expenditures) and to communication and tools supporting the flow and streamlining of travel expenditure process (e.g. dissemination of travel expenditure reports for approval, management's alerts when travel policies are violated etc). However, future research is required for identifying and assessing the information needs and their importance to different types of corporate business.

## **5 CONCLUSIONS AND IMPLICATIONS FOR FUTURE RESEARCH**

This study aimed at investigating the impact of Internet tools (online BTM systems) on the BTM agencies – businesses interrelationships. Although previous research and practical insights have advocated that the internet may inhibit the development of inter-firm relations because of the limited possibilities of interpersonal interactions, this study has revealed that such an argument is not anymore valid. Instead, internet capabilities should be used for enhancing inter-firm communication which in turn due to its mediating effect can further support and foster the social and relational bonds such as trust, dependence and satisfaction that are required for building and maintaining inter-firm relationships. The exploitation of the Internet capabilities for enhancing inter-firm relationships and the creation of relational and structural bonds between firms is also supported by the 'move to the middle hypotheses', initially argued by Clemons et al. (1993) and later found to be supported in different industries (Fairchild & Ribbers & Nooteboom 2004, Sigala 2003). According to the 'move to the middle hypotheses' information technology applications move firms away from market to intermediate governance structures characterised by increased outsourcing of business functions but from fewer suppliers. In other words, the 'move to the middle hypotheses' provides evidence of the successful exploitation of IT capabilities by outsourcing suppliers in order to reduce uncertainties and risks related to market governance forms and lock-in their partners for longer periods of time.

However, findings are limited to only one type of service (online BTM systems) and to three countries (UK, Greece and Cyprus) that have specific economic, business and cultural characteristics. The generalisability of the findings are also limited due to the fact that other industries may also differ in terms of the extent of internet adoption, employees skills and attitudes in Internet use and benefits. This is because an industry characterised by greater or lesser internet adoption may exhibit different patterns of communication within it and subsequently, experience a different effect on exchange relationships. Thus, it is evident that future studies should try to enhance, test and further enrich this model by conducting larger scale and cross-industry studies. The study also suffers from the convenience sampling that was used. Although generalisability of these findings is not feasible,

findings may still have some implications for other industries/services that share some common characteristics with the BTM market as well as represent a good first attempt of exploration within this area that looks very promising equally for practitioners and researchers.

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