



Understanding the effects of market orientation and e-marketing on service performance

Market orientation and e-marketing

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Rodoula H. Tsotsou

*Department of Marketing and Operations Management,
University of Macedonia, Edessa, Greece, and*

Maria Vlachopoulou

*Department of Information Management,
University of Macedonia, Thessaloniki, Greece*

Abstract

Purpose – The study aims to use the inter-relationship between market orientation and e-marketing in order to investigate alternative mechanisms through which both contribute to tourism services performance.

Design/methodology/approach – Direct and indirect effects of market orientation on performance are examined using structural equation modelling in a sample of 216 tourism firms.

Findings – Market orientation is found to contribute to performance through a dual mechanism in that it contributes both directly and indirectly, through e-marketing, to the relationship.

Practical implications – The results indicate that academics and managers should consider the inter-relationships between multiple sources of competitive advantage when looking for explanations of services performance and particularly, tourism services.

Originality/value – This is the first study, to the authors' knowledge, that investigates the inter-relationship between market orientation and e-marketing on service performance within the context of travel and tourism services.

Keywords Market orientation, Marketing, Tourism

Paper type Research paper

Introduction

Market orientation constitutes one of major concepts in the marketing literature because it refers to the extent to which a firm implements the marketing concept (Kohli and Jaworski, 1990). Market orientation is considered a business culture that facilitates firms in achieving sustainable competitive advantage by creating superior customer value (Narver and Slater, 1990). Another reason making market orientation important is its link to business performance. Substantial empirical evidence links market orientation with business performance. Research reports either a direct positive relationship (Jaworski and Kohli, 1993; Avlonitis and Gounaris, 1997; Deshpande and Farley, 1998; Langerak, 2002), or indirect influences (Han *et al.*, 1998; Agarwal *et al.*, 2003), or no effects (Greenly, 1995) between the two constructs.

Another research topic that has attracted recently the interest of academics is the implementation of e-marketing. Firms use the internet as the main vehicle for adopting e-marketing to develop value chain efficiencies, reduce costs, gain positive



word-of-mouth promotion, enhance customer (Srinivasan *et al.*, 2002; Anderson and Srinivasan, 2003; Rust and Espinoza, 2006) and channel relationships (Sultan and Rohm, 2004) and gaining competitive advantage (Day and Bens, 2005). Empirical evidence suggests that the use of the internet to perform transactional activities, such as ordering, selling, and payment is positively associated with increasing business performance (Drennan and McColl-Kennedy, 2003).

Although a research volume has examined the distinct effect of market orientation and e-marketing on firm performance, to the author's knowledge, there is no study examining the inter-relation between the two concepts and their influence on performance. Moreover, a lack of understanding of how market orientation contributes to service performance has induced calls for:

- Studies on the mechanisms through which market orientation contributes to performance (Han *et al.*, 1998; Matear *et al.*, 2002).
- Research focusing on services and not on physical goods (Gray and Hooley, 2002; Matear *et al.*, 2002).

Thus, the present study responds to these calls by examining the direct and indirect effects of market orientation on service performance.

Following, the major concepts of interest are briefly described while evidence on the relationships between market orientation, e-marketing, and business performance is reviewed to form the hypotheses of the study. Next, the methodology of the study is described followed by a presentation of the results of structural equation modelling (SEM). The paper concludes with a discussion of theoretical and managerial implications, study limitations, and directions for future research.

Theoretical framework

Market orientation and performance

Several conceptualizations of market orientation exist in the literature since the topic regained academic interest (Narver and Slater, 1990; Jaworski and Kohli, 1993; Deshpande and Farley, 1998). According to Kohli and Jaworski (1990, p. 6), market orientation "is the organization wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization wide responsiveness to it". Narver and Slater (1990) have proposed that market orientation consists of three behavioural components: customer orientation, competitor orientation, and inter-functional coordination. Customer orientation refers to understanding target buyers now and over time in order to create superior value for them continuously. Competitor orientation pertains to understanding current principal and potential competitors, their strengths, weaknesses, and capabilities. Inter-functional coordination involves the coordinated use of resources in creating superior value for target customers. A market-oriented firm is able to retain existing customers by keeping them satisfied and loyal, attract new customers, accomplish the desired level of growth and market share, and consequently achieve desirable levels of business performance (Homburg and Pflesser, 2000).

Market orientation has been investigated in association with business performance (Avlonitis and Gounaris, 1997; Dawes, 2000; Matear *et al.*, 2002), and innovation (Agarwal *et al.*, 2003; Manzano *et al.*, 2005). A significant stream of research reports a direct positive effect (Jaworski and Kohli, 1993; Avlonitis and Gounaris, 1997;

Deshpande and Farley, 1998; Langerak, 2002), others have examined a mediated relationship (Baker and Sinkula, 1999), and finally, research has tested a moderated link (Pelham, 1997) between market orientation and business performance. However, inconsistencies exist regarding the market orientation-business performance relation. In an extensive review of related literature, the majority of the studies (68 per cent) investigating a direct relationship between these two constructs reported positive effects, several (30 per cent) found no effects whereas a small number (2 per cent) indicated negative effects (Langerak, 2002). This relationship was also tested in the tourism industry and it was found that the degree of market orientation is positively associated with hotels' financial and marketing performance (Sin *et al.*, 2005).

Various measures of business performance have been utilized in the market orientation literature such as return on assets (Narver and Slater, 1990; Ruekert, 1992; Hooley *et al.*, 2000), market growth rate (Dawes, 2000), sales growth (Slater and Narver, 1994; Dawes, 2000), gross operating profit, market share, and capacity utilization have been also found to be related to market orientation (Agarwal *et al.*, 2003). Moreover, recent studies have examined the impact of market orientation on marketing performance by using measures such as service quality, customer satisfaction (Agarwal *et al.*, 2003), customer trust (Pelham, 1997; Siguaw *et al.*, 1998), brand equity, corporate reputation/image (Matear *et al.*, 2002), and new-product success (Slater and Narver, 1994).

Taking into consideration the above research findings, it is proposed that:

H1. Market orientation has a direct positive effect on tourism services performance.

The relation between market orientation and e-marketing

To understand how market orientation influences performance, researchers studied alternative mechanisms by testing the role of possible moderators and/or mediators such as innovation and customer relationship. Increasing evidence has linked market orientation to innovation. However, it is not clear yet whether innovation acts as a moderator and/or mediator on the relationship between marketing orientation and firm performance (Gray and Hooley, 2002; Agarwal *et al.*, 2003; Manzano *et al.*, 2005; Matear *et al.*, 2002). Agarwal *et al.* (2003) have found that innovation (technological and administrative) mediates the relationship between market orientation and performance.

E-marketing, as an innovative technology-based activity, has been considered as one of the main aspects of marketing practice that involves using the internet and other interactive technologies to create and mediate dialogue between the firm and its customers (Coviello *et al.*, 2001). E-marketing constitutes an innovative activity because it develops new ways of interacting with customers (Lovelock, 1995) and provides new service delivery systems (Dabholkar, 1994) and processes that reduce cost (John and Storey, 1998). E-marketing relies on technology to enable interactivity, and thus differs from other marketing practices, by providing customers access to information while the use of interactive technologies allows these customers to provide information to the business (Brodie *et al.*, 2007). The internet, the main e-marketing tool has been recognized as a key business resource and is increasingly being used and integrated into firm's marketing activities. Several factors have been examined in the literature as antecedents of e-marketing penetration and adoption. These factors refer to internal resources and capabilities such as database and network marketing (Brodie *et al.*, 2007), and

organizational readiness, and management support (Sadowski *et al.*, 2002; Sultan and Rohm, 2004; Wu *et al.*, 2003). However, there is a need to examine the extent to which market orientation contributes to the implementation of e-marketing. In the conceptual framework proposed by Lages *et al.* (2004), market orientation is considered one of the internal forces (along with organizational innovation and bureaucratization and centralization) that influences e-marketing and subsequently business performance. To the author's knowledge, this relationship has not been tested before although it should be expected that the implementation of the marketing concept will contribute to the adoption of innovative marketing practices such as e-marketing. Thus, the following hypothesis can be developed to test the direct influence of market orientation on e-marketing:

H2. Market orientation has a direct positive effect on e-marketing.

The effect of e-marketing on performance

Despite the increased interest in e-marketing, there is limited data in the literature explaining its link to business performance. Up to recently, research reports contradictory findings regarding the relationship between e-marketing and business performance. Wu *et al.* (2003) studied four types of technology-based industries in the USA and reported a positive effect of e-business intensity on firm performance expressed as business efficiency, sales performance, customer satisfaction, and relationship development. Recently, Ordanini and Rubera (2007) reported that internet resources exhibit an indirect effect on performance mediated by customer orientation. Brodie *et al.* (2007) found that the adoption of e-marketing is positively associated with marketing performance and specifically on customer acquisition and retention. Accordingly, it is proposed here that:

H3. E-marketing has a direct positive effect on tourism services performance.

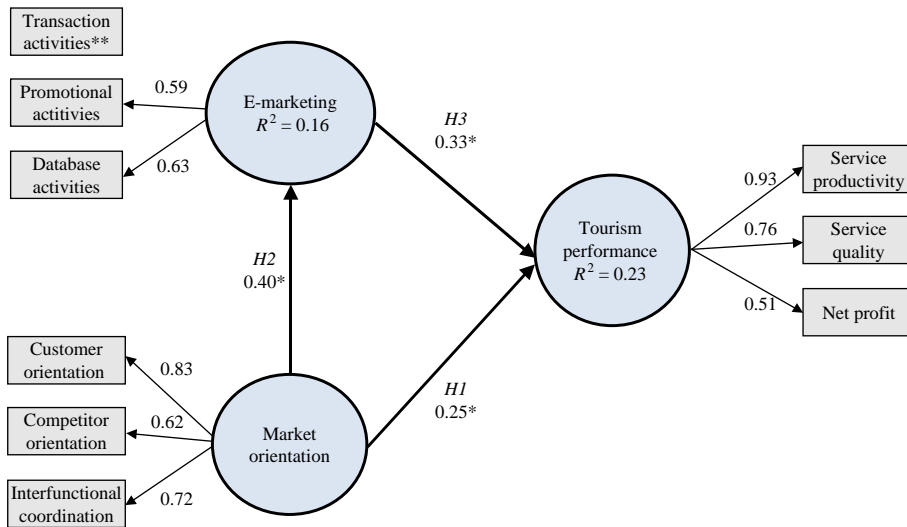
The proposed relationships are shown on Figure 1. It becomes apparent that market orientation contributes to performance through two mechanisms: one direct and one indirect via the mediating effect of e-marketing.

E-marketing research in tourism

Travel and tourism services were selected as the context under which the proposed model was tested. The tourism sector was selected because tourism businesses all over the world are currently facing rapid changes due to market globalization, intensified competition, and the dynamic evolution of new technologies.

According to the 2006 e-Business Watch report (www.ebusiness-watch.org), tourism is in the forefront of ICT adoption and e-business in the area of e-marketing. However, the report presents a study conducted in 2006 that gathered data from ten different sectors in Europe and conveys that the tourism industry was ranked in the middle regarding the overall use of ICT and e-business. The report states that "regarding the deployment of ICT infrastructure and the adoption of e-integrated business processes, tourism companies are still lagging behind their counterparts in other industries" (www.ebusiness-watch.org/studies/sectors/tourism/tourism.htm).

Research on e-marketing adoption in the tourism sector is focused either on consumers (Sigala, 2006; Ho and Liu, 2005), or tourism businesses (Baloglu and Pekcan, 2006). Regarding the role of e-marketing and its link to tourism business performance, contradictory findings have been reported in the literature. A study among travel



Notes: Significant path at: *0.05 level; **item dropped; $\chi^2 = 34.15$ ($p = 0.008$) with 17 degrees of freedom, RMSEA = 0.068, NFI = 0.93, AGFI = 0.92, and CFI = 0.96

Figure 1. Conceptual and structural model of tourism performance

and hospitality companies revealed that the majority of them consider their web site as a significant competitive weapon and considerable mean in acquiring new customers. However, Coviello *et al.* (2006) report that e-marketing activities did not have any direct effect on performance in the tourism accommodation sector. The authors explain this finding as either a reflection of the low implementation levels of e-marketing or as low levels of customers' reception of its activities. Vasudavan and Standing (1999) support that not all tourism sub-sectors will be affected positively by the internet. For example, the internet will change the landscape of the travel distribution process and will result in retail travel agencies experiencing lower business performance. Specifically, airlines will increase their direct communication with customers to reduce expenses while virtual travel agencies will increase their market share by shift customers away from traditional travel agencies which will experience tremendous business decreases. Thus, due to the inconsistencies in the literature, examining the role of e-marketing on tourism businesses performance becomes an emerging research topic.

Method

Sample

The target population for this research is the tourism industry and specifically travel and tourism services in Greece. Regarding market orientation, previous research in Greek tourism firms shows that a certain degree of market orientation is implemented by mostly emphasizing the customer orientation component and disregarding competitor orientation and inter-functional coordination (Tsiotsou, 2007). In line with the research presented above and associated with the ICT use by tourism firms, Greek tourism enterprises have been found to have adapted to a certain degree ICTs but they do not fully exploit them. An under-utilization of e-business resources is found due to cultural

reasons (resistance to change), lack of specialized personnel, and technological illiteracy (E-business Forum, 2007; Tsiotsou, 2006). Regarding internet use, a study conducted among Greek travel agencies revealed that although a large portion of them has access to the internet (93.3 per cent) and owns a company web site (70 per cent), their e-business activities are confined to communication purposes (e.g. send e-mail and advertise products/services) (Tsiotsou, 2006).

Data were collected from an e-mail survey of 350 Greek travel and accommodation services firms. The firms were randomly selected (every tenth listed company) by the directory of tourism businesses listed on the web site of the Greek Tourist Organizer (www.gto.gr). A total of 216 questionnaires were received after two follow-ups and achieving a response rate of 61.7 per cent. The sample consisted of 120 travel agencies and 96 hotels ($n = 216$). The average years of operation of the sample was 15 while the average number of full-time personnel employed on them were 12 people. These results are consistent with other studies on tourism (Todnem and Dale, 2008; Wanhill, 2000) where tourism businesses are found to be mainly small to medium enterprises (SMEs) with a small number of full time employees. Non-response bias was assessed by comparing the early respondents' and the late respondents' measured levels of market orientation and market performance. None of the differences were found to be significant by *t*-tests, suggesting the non-response was less likely to be a cause of concern in subsequent analysis.

Construct operationalization and measures

The questionnaire of the study consisted of four parts. Part I gathered general data regarding the type of business, years of operation, and number of employees. Part II gathered data on market orientation used the reduced MKTOR scale developed by Narver and Slater's (1990) and consisting of 14 items measured on a five-point likert type scale (1 – strongly disagree and 5 – strongly agree). Part III asked about how well the company is doing the last five years on several performance aspects. Part IV consisted of two questions: the first question asked about the ICT used in the company and then, companies indicating that they own a web site should indicate the degree of usage of several e-marketing activities.

The measurement model of the study is presented on Table I. Market orientation was measured by using Narver and Slater's (1990) measure, MKTOR. MKTOR was employed to measure market orientation as culture expressed through certain behaviours: customer orientation, competitor orientation, and inter-functional coordination. The scale has been used and validated before on tourism services (Tsiotsou, 2010; Adam *et al.*, 2009).

Performance has been conceptualized as a complex construct consisting of two dimensions: market (or marketing) and financial performance (Homburg and Pflesser, 2000; Zhu and Nakata, 2007). In this study, a combination of market- and financial-related criteria to service performance were used. Service performance was assessed by using three items referring to service productivity, service quality, and net profits. Performance was measured on service-tied criteria because they are of significant value to services firms. Responses to the items were made using a five-point Likert scale anchored by well below average (1) to well above average (5).

E-marketing was assessed by measuring the degree of transaction, promotion, and database activities utilized by the tourism firms on a five-point Likert scale (not at all (1) – always (5)). These dimensions have been proposed before in

Variables	Loading	AVE
Market orientation ($\alpha = 0.71$, CR = 0.77)		0.73
Customer orientation	0.83*	
Competitor orientation	0.62*	
Inter-functional coordination	0.72*	
Tourism performance ($\alpha = 0.90$, CR = 0.79)		0.75
Service productivity	0.93*	
Service quality	0.76*	
Net profit	0.51*	
E-marketing ($\alpha = 0.76$, CR = 0.54)		0.61
Transaction activities ^a		
Promotional activities	0.59*	
Database activities	0.63*	

Notes: Significance at: *0.05 level; ^aitem was dropped from the analysis due to small loading; $\chi^2 = 33.74$ ($p = 0.009$) with 17 degrees of freedom, RMSEA = 0.068, NFI = 0.93, AGFI = 0.92, and CFI = 0.96; CR, composite reliabilities, α , Cronbach alpha, AVE, average variance extracted estimate

Table I.
Measurement model and CFA results

the e-marketing literature as main activities (Barwise and Farley, 2005; Coviello *et al.*, 2003) and have been tested before in a tourism context (Coviello *et al.*, 2003).

Results

First, a confirmatory factor analysis (CFA) was used for testing the measurement model and then, SEM was deployed to test the proposed relationships, which appear in Figure 1. To assess the practical fit to data of both, the CFA and the SEM model, five practical fit indexes were used:

- (1) the ratio of the χ^2 to the degrees of freedom;
- (2) the root-mean square error of approximation (RMSEA);
- (3) the normed fit index (NFI);
- (4) the adjusted goodness of fit index (AGFI); and
- (5) the comparative fit index (CFI).

A ratio of the χ^2 to the degrees of freedom below three is considered acceptable in the literature whereas a value of RMSEA smaller than 0.08 indicate a reasonable fit to the data. Moreover, values of fit indexes larger 0.90 indicate good model fit (Hoyle, 1995).

Confirmatory factor analysis

The nine items used to measure the three latent constructs were subjected to CFA using LISREL 8.52. CFA was employed to test the proposed theoretical framework and to verify uni-dimensionality and convergent validity. Some items were dropped from the analysis due to small loadings (Table I). The revised measurement model was found to fit the data well with the χ^2 goodness of fit index not being statistically significant ($\chi^2 = 33.74$ with 17 degrees of freedom, and ratio $\chi^2/df = 1.98$; $p = 0.009$). Moreover, the fit indexes values met or exceeded the critical values for good model fit (RMSEA = 0.068, NFI = 0.93, AGFI = 0.92, and CFI = 0.96).

Next, internal consistency was evaluated by using Cronbach's α and composite reliability (CR). The Cronbach's α for the latent variables ranged from 0.71 to 0.90,

all above the recommended 0.70 cut-off point. Both CR and average variance extracted (AVE) were calculated using the procedures recommended by Fornell and Larcker (1981). According to Fornell and Larcker (1981), variance extracted estimates assess the amount of variance that is captured by an underlying factor in relation to the amount of variance due to measurement error. They have suggested that it is desirable a construct to exhibit estimates of 0.50 or larger. As shown in Table I, all the composite reliabilities for the four multi-item scales ranged from 0.54 to 0.79, indicating acceptable levels of reliability for the constructs. Moreover, the AVEs ranged between 0.61 and 0.75, well above the recommended 0.50 level (Bagozzi and Yi, 1988).

Finally, the model was tested for convergent and discriminant validity by using the factor loadings. Convergent validity is indicated when path coefficients from latent constructs to the corresponding indicators are statistically significant. The loadings of the observed variables ranged from 0.59 to 0.93 all were positive and significant at the 0.05 level (the lowest t -value = 5.97) indicating that the observed variables were explained by the latent variables. Significant t -values met the criteria for convergent validity. Discriminant validity was assessed by the variance extracted test (Fornell and Larcker, 1981). The AVEs of each construct were compared against the shared variance with the other latent constructs. AVEs were larger than the shared variance with the other latent constructs, strong evidence of discriminant validity. Thus, the conditions for convergent and discriminant validity were satisfied indicating that the constructs are measured reliably and can be discriminated.

Testing the structural model

After the preliminary analyses, the structural model of the study was tested using the statistical package LISREL 8.52 and employing maximum likelihood. The proposed model (Figure 1) did fit the data well with a χ^2 -value of 34.15 (ratio $\chi^2/df = 2$), and 17 degrees of freedom ($p = 0.008$). All of fit indexes values were larger than the 0.90 threshold (AGFI = 0.92, CFI = 0.96, and NFI = 0.93) and the RMSEA value was close to the acceptable levels (0.068), another indication of the good model fit.

All hypotheses were confirmed by the conceptual model. Market orientation had significant positive and direct effects on tourism performance ($\gamma_1 = 0.25, p < 0.05$) and e-marketing ($\gamma_2 = 0.40, p < 0.05$) whereas e-marketing exhibited a direct effect on performance ($\gamma_3 = 0.33, p < 0.05$).

Total, direct and indirect effects on the endogenous variables of the proposed model were all significant and are presented in Table II.

With respect to the explained variance of the endogenous variables, 23 per cent of the variance on tourism performance was explained while market orientation explained 16 per cent of the variance on e-marketing.

Outcome	Determinant	Direct	Indirect	Total
Tourism performance ($R^2 = 0.23$)	Market orientation	0.25*	0.13*	0.38 ^a
	E-marketing	0.33*	–	0.33 ^a
E-marketing ($R^2 = 0.16$)	Market orientation	0.40*	–	0.40 ^a

Notes: Significant effects at: *0.05 level; ^atotal effect may be incomplete due to unanalyzed components

Table II.
Direct, indirect and total effects on the endogenous variables

Discussion of findings

This study constitutes a first attempt to investigate the nexus of relationships between market orientation, e-marketing, and performance. The findings confirm that market orientation determines service performance. However, this is a dual mechanism, a direct and an indirect effect, mediated by existing marketing resources such as e-marketing.

The present paper integrates the e-marketing and market orientation perspectives in order to clarify the mechanisms under which market orientation impacts performance. This research departs from previous attempts that investigated either the direct effect of market orientation on performance or the direct impact of e-marketing on performance outcomes. Moreover, it extends previous research on the factors influencing e-marketing by examining the role of market orientation and confirming that e-marketing is integrated within and inter-related with other marketing resources and practices (Brodie *et al.*, 2007; Day and Bens, 2005; Wu *et al.*, 2003). As a source of competitive advantage, market orientation does not seem to operate in isolation from other resources. The results obtained in this investigation also support a contributory relationship between market orientation and e-marketing. Thus, the outcomes indicate that market orientation constitutes the foundation and the catalyst that boosts the effects of other marketing resources within the firm such as e-marketing. That is, marketing resources do not act only in isolation but complement each other to achieve business performance. The results designate that academics and managers should consider the inter-relationships between multiple sources of competitive advantage when looking for explanations of services performance and particularly, tourism services.

Support for *H1-H3* suggests that market orientation both has a direct effect on performance and also influences it through e-marketing, with e-marketing mediating the relationship. The findings support prior empirical evidence on the positive direct contribution of market orientation on performance (Jaworski and Kohli, 1993; Avlonitis and Gounaris, 1997; Deshpande and Farley, 1998; Langerak, 2002; Sin *et al.*, 2005) and on its indirect effect via innovative activities (Gray and Hooley, 2002; Agarwal *et al.*, 2003; Manzano *et al.*, 2005; Matear *et al.*, 2002) such as e-marketing.

In addition, the study enriches the tourism marketing literature by providing empirical evidence regarding the antecedents of tourism performance and their inter-relations. The results show that e-marketing affects positively tourism business performance contrary to previous anticipations in the tourism literature (Vasudavan and Standing, 1999). In line with preceding research on tourism (Wu *et al.*, 2003; Qu and Ennew, 2003), the findings indicate that market orientation constitutes a significant determinant of tourism performance. By being market oriented, tourism firms will not only increase their "customer focus and become more customer-oriented" but they will need to gather information about their competitors and respond to their actions while they will try to coordinate and communicate all of their resources within their business units. Attracting customers is considerably more difficult and costly than retaining them, particularly during difficult economic conditions, and travel services that are consistently market oriented should be in a better position to maintain their profitability. In sum, if tourism firms wish to increase their performance, they need to adopt first a certain degree of market orientation.

The study shows that market orientation constitutes a necessary element for tourism firms in order to incorporate new technologies into their business

activities and exploit them for marketing purposes. The relationship between market orientation and e-marketing probably explains the under-utilization of web sites and its capabilities by tourism companies and the limited contribution of e-marketing to performance. Research in tourism has shown that the web site design and internet marketing features are significant predictors of message delivery, corporate brand image, and quality of products and services. However, several studies using web site content analyses have demonstrated that tourism firms in various countries (Australia, Greece, Turkey, and Taiwan) are not effectively using the internet for web-based marketing and e-commerce (Baloglu and Pekcan, 2006; Benckendorff and Black, 2000; Sigala, 2001; Wan, 2002). Thus, the findings suggest that tourism enterprises wish to implement new technologies, they need first to implement the marketing concept and develop a culture within their organization that will focus on customers, pay attention to competitors, and achieve inter-functional coordination of resources.

From a managerial perspective, the results of this study validate the long-held connotation that market orientation constitutes a crucial success factor for business performance and that travel and tourism services could improve their performance by adopting a market orientation. In addition to the direct impact on performance, market orientation can enhance other marketing resources, such as e-marketing and further increase performance via these resources. In order for travel and tourism services to initiate e-marketing into their business activities, they need to have implemented before a certain degree of market orientation. Furthermore, the mechanism by which market orientation contributes to performance has implications for resource investment decisions and performance measures for assessing the impact of their investment. The findings suggest that market orientation influences both, tourism performance and e-marketing. Therefore, performance measurement methods should be capable of detecting the impact of investment in market orientation in both of these areas and providing insights related to the efficiency of the firm. In sum, managing operational-level marketing resources is critical to business success and the relations revealed through these outcomes will assist managers in guiding and controlling appropriate enactments.

Furthermore, the current findings provide several managerial implications to small to medium tourism enterprises because our sample consisted mainly of SMEs. Tourism SMEs are struggling to survive within a fierce competitive environment where large tourism enterprises are increasing constantly their negotiation power and control a large portion of the economic exchanges in the industry. In order for tourism SMEs to compete effectively in this turbulent environment, they need to develop skills and strategies that will assist them in gaining competitive advantage over giant tourism enterprises. Developing marketing, and e-marketing capabilities and adopting an e-marketing strategy constitute managerial avenues that tourism SMEs could take in order to increase their business performance and survive. To secure their existence, SMEs in tourism must continuously upgrade on-line business systems so that they keep distribution costs low and offer added value to their customers. However, first, they need to invest in resources (human and technological) that will qualify them in changing their business culture to a market-oriented environment that puts the customer's interests first, respond to competitors actions, and secure intelligence dissemination and coordination of resources throughout their firm.

Future research recommendations/limitations

The study suffers from a number of shortcomings that must be considered and possibly addressed in future research. Although providing the benefits of controlling for industry effects, a single industry approach has certain limitations in terms of the generalizability of the findings due to the uniqueness of an industry's environment. In lieu of the above deficiency, this research uses two industry sectors with distinctive differences in their role, degrees of market turbulence, and competitive intensity. The two sectors refer to travel agencies and hotels. The use of sample from only one country also constitutes another study limitation. Consequently, in order to be able to make generalizations with confidence about the relations revealed here, further research is needed to test the proposed model in various industries and countries.

Although the explained variance obtained for performance in this research is close to other investigations, it indicates that a significant portion of variation in performance remains unexplained. Thus, other important variables should be included in the model to explain more of the variation on performance. Such variables might be firm size, marketing culture, competitive turbulence, type of economy (developed vs developing), and marketing strategy (e.g. differentiation strategies, focus strategies, and market information strategies). Recently, an increasing number of scholars (Han *et al.*, 1998; Dawes, 2000; Sin *et al.*, 2005) propose a component-wise approach in examining the process by which market orientation leads to superior performance. Thus, future studies should examine the individual effects of the market orientation components on performance and other marketing activities. Moreover, the use of distinct performance measures such as marketing and financial performances could assist in delving deeper into the role of the proposed constructs and their influence of specific performance outcomes.

Furthermore, additional factors that influence e-marketing should be examined in order to explain more of its variation. Technological orientation, international activity, and innovation are only a few that their role should be examined in future investigations. Strategies such as e-service strategies (Hofacker *et al.*, 2007), customer relationship management (Anderson and Srinivasan, 2003; Rust and Espinoza, 2006), and customization (Rust and Espinoza, 2006) have been suggested as crucial for the full exploitation of the internet. Thus, their role on e-marketing and subsequently on business performance could constitute another interesting research avenue. Moreover, a valid and reliable measure of e-marketing is needed in the literature that captures the main dimensions of the concept while it includes a manageable number of items. So far, the literature uses either a generic measure of e-marketing (Brodie *et al.*, 2007) or a plethora of items (Brady *et al.*, 2002) that is difficult to use in research, especially when the purpose is to collect data on other concepts as well. Although the present investigation identified transactional, promotional, and database marketing activities performed in e-marketing, further research should identify the main dimensions of the concept.

Finally, future endeavours should investigate other marketing and business resources/capabilities and how market orientation interacts with them to influence service performance. Service quality, customer value, customer acquisition and retention, e-services, and customer relationship are only few that could be incorporated into the present model and examine their role.

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Corresponding author

Rodoula H. Tsiotsou can be contacted at: rtsiotsou@gmail.com