

DEVELOPING A MARKET ORIENTATION MEASUREMENT MODEL TAILORED TO THE HOTEL INDUSTRY

DESENVOLVIMENTO DE UM MODELO DE MEDIÇÃO DA ORIENTAÇÃO DE MERCADO PARA A INDÚSTRIA HOTELEIRA

*Carlos Alberto Fernandes Sampaio¹, José Manuel Hernández-Mogollón²
Ricardo Gouveia Rodrigues³*

Abstrat

This study deals with the development of a market orientation measurement scale tailored to the hotel industry. An analysis to the market orientation literature was conducted and the model dimensions and the measurement indicators were developed. The proposed model has three dimensions: intelligence generation, intelligence dissemination and coordinated response to the client, competition and market structure. The research results shows that the proposed scale possess good psychometric indicators. The content validity was assessed using a survey to a group of marketing experts and data shows that the measurement model holds convergent and discriminant validity as well reliability.

Key words: Hotel industry; market orientation; scale construction

Resumo

Este estudo trata do desenvolvimento de uma escala de medição da orientada para o mercado adaptada à indústria hoteleira. Procede-se a uma análise à literatura sobre a orientação de mercado e desenvolvem-se as dimensões e indicadores do modelo de medida. O modelo proposto possui três dimensões: geração de informação, disseminação de informação e resposta coordenada ao cliente, concorrência e estrutura de mercado. Os resultados da investigação mostram que a escala proposta possui bons indicadores psicométricos. A validade de conteúdo foi avaliada usando um questionário enviado a grupo de especialistas em marketing e os dados do questionário principal mostram que modelo proposto possui validade convergente e discriminante, bem como fiabilidade.

Palavras-Chave: Indústria hoteleira; orientação de mercado; construção de escala

1. INTRODUCTION

Market orientation research experienced a boom in the early 1990s. Several contributions were made that shaped the present state of market orientation study (Deshpandé, Farley, & Webster Jr., 1993; Jaworski & Kohli, 1993; 1990; Kohli, Jaworski, & Kumar, 1993; Narver & Slater,

¹ Instituto Politécnico de Castelo Branco, Castelo Branco, Portugal cfsampaio@gmail.com

² Universidad de Extremadura, Cáceres, Espanha, jmherdez@unex.es

³ Universidade da Beira Interior, Covilhã, Portugal, rgrdrigues@ubi.pt

1990; Ruekert, 1992), and extensive work was established.

Notwithstanding the fast development in the market orientation study in the 1990s, the advent of the 2000s brought further research (Liao, Chang, Wu, & Katrichis, 2011). Several studies focused on market orientation literature analysis, concluded a positive effect of market orientation in business performance (Cano, Carrillat, & Jaramillo, 2004; Chang, Franke, Butler, Musgrove, & Ellinger, 2014; Kirca, Jayachandran, & Bearden, 2005; Langerak, 2003; Liao et al., 2011; Shoham, Rose, & Kropp, 2005). Similarly, empirical research on this issue confirmed this conclusion (Haugland, Myrtveit, & Nygaard, 2007; Lee, Kim, Seo, & Hight, 2015; Nwokah, 2008; Wang, Chen, & Chen, 2012).

Regardless of the literature developed during the 1990s and early 2000s, market orientation research on services sector, particularly empirical research about service provider companies as hotels and other leisure providers, was scarce. The market orientation knowledge on the service sector was developed mainly based on literature produced in the manufacturing sector (Tajeddini, 2010). Research on this subject about the services sector was focused on healthcare providers, insurance companies, banks, finance services, and nonprofit organizations (Polo-Peña, 2010).

Recently an additional amount of market orientation research on hotel companies was developed. Some advances were achieved in adapting the MARKOR and MKTOR scales to hotels (Campo, Díaz, & Yagüe, 2014; Polo-Peña, Frías-Jamilena, & Rodrigues-Molina, 2012; Wang et al., 2012), although, no major theoretical developments were made using data from the hotel industry.

Typically, empirical studies on market orientation in hotel industry use the MARKOR scale (Narver & Slater, 1990) or the MKTOR scale (Kohli et al., 1993), or some kind of adaptation. Despite the high acceptance, these models face several criticism to its psychometrics characteristics. On the other hand, using these models to assess market orientation raises doubts about the results, and to construct new measurement models by synthesizing existent measures of the same construct is to avoid without reference to appropriate theory and conceptualization (Farrell, 2002).

Moreover, despite the contributions produced in recent years about market orientation in the hotel industry, in general, empirical research was based in a country or a country region context (Campo et al., 2014; Haugland et al., 2007; Polo-Peña et al., 2012; Sargeant & Mohamad, 1999; Sin, Tse, Heung, & Yim, 2005). In fact, literature analysis suggests that studies, with an international scope, are scarce.

Accordingly, this work seeks to contribute to the development of market orientation literature in hotel industry companies. The authors develop a market orientation measurement scale, tailored to the hotel industry, using a sample from hospitality sector companies. The data were obtained from an international context. Particularly, a sample of hotels from Western Europe (France, Ireland, Italy, Portugal, Spain and the United Kingdom).

Therefore, this paper seeks to develop, considering the specificities of the existing market orientation measurement models, a valid and reliable scale, suitable for the hotel industry, developed using data from an international context.

2. Literature review

2.1. Measuring market orientation

Two main proposals were made in developing the market orientation definition. Market orientation as the “organizational culture that most effectively and efficiently creates the necessary behaviors for creating superior value for buyers and, thus, continuous superior performance” (Narver & Slater, 1990), and the “organizationwide generation of market intelligence pertaining to current and future customer needs, dissemination of intelligence across departments, and a organizationwide responsiveness to it” (Kohli & Jaworski, 1990).

These definitions launched the foundations of the past quarter century of market orientation

research. According to Narver and Slater (1990) and Kohli and Jaworsky (1990) definitions, market orientation was seen as part of one of two approaches (Lafferty & Hult, 2001), a cultural approach (Deshpandé et al., 1993; Narver & Slater, 1990) and a management approach (Kohli & Jaworski, 1990; Ruekert, 1992; Shapiro, 1988).

Furthermore, empirical research provided strong evidences of a positive relationship between market orientation and business performance (Agarwal, Erramilli, & Dev, 2003; Baker & Sinkula, 1999, 2009; Caruana, Pitt, & Ewing, 2003; Ellinger, Ketchen, Hult, Elmadag, & Richey, 2008; Farrell, Oczkowski, & Kharabsheh, 2008; Harris & Ogbonna, 2001; Haugland et al., 2007; Homburg & Pflesser, 2000; Hult & Ketchen, 2001; Jaworski & Kohli, 1993; Kara, Spillan, & Deshields, 2005; Liao et al., 2011; Martín-Consuegra & Esteban, 2007; Pitt, Caruana, & Berton, 1996; Pulendran, Speed, & Robert, 2003; Raju, Lonial, Gupta, & Ziegler, 2000; Slater & Narver, 2000; Wang et al., 2012; Wood, Bhuian, & Kieker, 2000), emphasizing the importance of market orientation in creating superior value to clients and as a tool to maximize business performance.

Moreover, empirical research on market orientation, despite wide, mainly used Jaworsky and Kohli (1993) scale, or its reduced version, MARKOR scale (Kohli et al., 1993) and the MKTOR scale (Narver & Slater, 1990). Besides MARKOR and MKTOR scales, several original measurement models were developed (Deshpandé & Farley, 1998; Deshpandé et al., 1993; Ruekert, 1992), without any particular acceptance by the research community.

Notwithstanding the importance of these measurement models, MARKOR and MKTOR scales present several problems and raised several criticism about validity and reliability issues (Farrell, 2002; Farrell & Oczkowski, 1997; Gauzente, 1999; Pelham, 1993; Siguaw, Brown, & Widing II, 1993). Further criticism was raised about the scale geographical and cultural development context (USA) and generalization to different contexts. For instance, the relationship between market orientation and business performance presents slightly different results, according the studied context (Ellis, 2006; Kirca et al., 2005; Langerak, 2003; Shoham et al., 2005) or according to the market orientation scale used (Cano et al., 2004; Ellis, 2006; Langerak, 2003; Vieira, 2010).

Results achieved by the MARKOR and MKTOR scales have also raised several critics, namely, the inconsistency of the relationship between market orientation and business performance. Concerning the MARKOR and MKTOR scales' psychometric characteristics, there are some problems regarding the statistical validity and the consistence with the theoretical definition. These models present also several validity issues (Farrell, 2002; Gauzente, 1999), fit problems (Farrell & Oczkowski, 1997; Siguaw & Diamantopoulos, 1994) and a narrow conceptualization (Pelham, 1993). On the other hand, "new" market orientation models, that are no more than synthesizing existing measures of the same construct (Farrell, 2002), are frequently found in literature and did not add much to the development of the matter.

Despite the criticism to these models, the main question about this issue relates to the accurate measurement of the market orientation. Currently, empirical research on market orientation, continues to use former market orientation measurement models, mainly MARKOR and MKTOR models, or an adaptation based on them. Likewise, the same MARKOR and MKTOR dimensions and thus the same structures are used by researchers, even when developing new scales, putting at the center of the process a certain level of intelligence generation, intelligence dissemination and response to the information, about costumers, competition and market structure.

2.2. Market orientation and the hotel industry

For some reason, the hospitality sector has been overlooked in the development of existing market orientation measurement models. In general, the scales used to measure this matter in the hotel industry are based in former models, namely the MARKOR and MKTOR scales, or adap-

tations. Only recently a few proposals emerged to improve these models and adapt them to this sector (Campo et al., 2014; Polo-Peña et al., 2012).

Similarly, only recently market orientation studies in the hospitality sector have been published more frequently (Agarwal et al., 2003; Campo et al., 2014; Haugland et al., 2007; Polo-Peña et al., 2012; Qu & Ennew, 2003; Quintana-Déniz, Beerli-Palacio, & Martín-Santana, 2007; Sandvik & Sandvik, 2003; Sin et al., 2005; Tse, Sin, Yim, & Heung, 2005; Zhou, Brown, & Dev, 2009), although empirical research with an international scope of study is scarce.

Market orientation in the hotel industry should produce a positive effect on business performance. Furthermore, hotel managers and owners, in order to develop a long-term profitable enterprise, should put clients' interest first (Tajeddini, 2010), on the other hand, client orientation, as part of a market orientation, seems to perform a dominant role obtaining a competitive advantage in service sector (Zhou et al., 2009).

Study	Location	MO scale
Sargeant and Mohamad (1999)	United Kingdom	Parasuraman et al. (Parasuraman, Berry, & Zeithaml, 1983) and Deng and Dart (1994)
Gray et al. (2000)	New Zealand	Gray et al. (2000)
Agarwal et al. (2003)	USA	MKTOR – Narver and Salter (1990) - - adapted
Qu and Ennew (2003)	China	MARKOR – Kohli et al. (1993)
Sandvik and Sandvik (2003)	Norway	Jaworski and Kohli (1993)
Sin et al. (2005)	Hong Kong	MKTOR – Narver and Slater (1990)
Haugland et al. (2007)	Norway	MKTOR – Narver and Slater (1990)
Quintana-Déniz et al. (2007)	Spain	MARKOR – Kohli et al. (1993)
Zhou et al. (2009)	International	MKTOR – Narver and Slater (1990)
Tajeddini (2010)	Switzerland	D-F-W – Deshpandé et al. (1993)
Polo-Pena et al. (2012)	Spain	MARKOR – Kohli et al. (1993)
Wang et al. (2012)	China	Several
Campo et al. (2014)	Spain	MKTOR – Narver and Slater (1990)

Fig. 1. Market orientation research by context and scale used.

Fig. 1 presents a summary of the reviewed literature and relates the study with the geographic context and the market orientation measurement scale used. Thirteen studies were analyzed, only one was focused in an international context. Two studies were based in the Norwegian hotel industry, two studies in China, three in Spain, one in Switzerland, and one in New Zealand, United Kingdom, and USA. Moreover, with a few exceptions, it was found that the MKTOR was the most frequently used scale, followed by the MARKOR scale.

Concerning the relationship between market orientation and business performance, notwithstanding some inconsistent results (Au & Tse, 1995; Sargeant & Mohamad, 1999), empirical results conclude a positive relationship between market orientation and business performance (Agarwal et al., 2003; Campo et al., 2014; Gray et al., 2000; Polo-Peña et al., 2012; Qu & Ennew, 2003; Sandvik & Sandvik, 2003; Sin et al., 2005).

Furthermore, market orientation, if implemented, enables value creation for costumers and continuous business performance improvement (Narver & Slater, 1990), and allows a unifying objective to individuals and departments, conducing to a superior business performance. It also produces in the workforce a sense of belonging to the organization, in which the central goal is to satisfy the customer, conducing to a compromise with the efforts of clients' satisfaction (Kohli & Jaworski, 1990), and consequently improving business performance.

3. Methodology

3.1. Item generation and content validity

The market orientation scale was developed following Churchill (1979) recommendations. Additional advice from (Webb, 2002) and Nunnaly and Bernstein (1994), about item generation, were followed.

Literature analysis did not found, with the exception of a few adaptations from existing scales, market orientation measurement scales developed using data from the hotel industry. Thus, first, a qualitative step was conducted, and market orientation literature was analysed. Special attention was given to the service sector literature on this matter, and particularly research focused on hospitality sector companies.

Literature analysis sought to specify the construct domain (Churchill, 1979). A deep analysis about market orientation was conducted. A set of market orientation measurement scales were picked from literature, including original scales, or adaptations of existing ones, the construction process was evaluated and an item by item analysis was done.

The procedures had two main objectives: (1) to identify the measurement indicators (eg. quickness, existence and frequency) and (2) draw up the market orientation dimensions.

Concerning the measurement indicators, the authors found two forms of indicators: action indicators, as *frequency*, *quickness*, and *use*, and position indicators as level, commitment, and existence.

Regarding to the measure dimensionality, literature reports the market orientation construct as multidimensional (Campo et al., 2014; Deng & Dart, 1994; Gray, Matear, Boshoff, & Mathe-son, 1998; Kohli & Jaworski, 1990; Lado, Maydeu-olivares, & Rivera, 1998; Matsuno, Mentzer, & Rentz, 2005; Narver & Slater, 1990; Narver, Slater, & Maclachlan, 2004; Ruckert, 1992). Consequently, it was proposed that market orientation has three dimensions: intelligence generation, intelligence dissemination and coordinated response to market information. These dimensions should measure three domains: client domain, competition domain and market structure domain.

A set of twenty-one items were developed to measure the frequency, quickness, use, level, commitment, and existence of intelligence generation, intelligence dissemination, and coordinated response about client, competition and market structure.

The next step was to assess the content validity. Content validity analysis is essentially a subjective process and largely based upon opinions of various users (Nunnaly & Bernstein, 1994). Therefore, to evaluate the scale content validity, a questionnaire was sent to a poll of experts in marketing. Experts were PhD holders, selected from universities around the geographical context, and were asked to evaluate the model items, and if it measured what it was supposed to measure (Webb, 2002).

Additionally, experts were asked to make a positive or negative judgement about the items' structure and the link between the items and the dimensions (intelligence generation, intelligence dissemination, and coordinated response). If a negative judgement was produced, it was asked to specify why, and to suggest improvements to the model.

The experts were relative unanimous about proposed items and dimensions, conceding content validity to the proposed model. A minor change was made to one item according to experts' advice. The remaining twenty items did not suffer any changes.

Consequently, the final model was based on twenty-one items, divided into three dimensions: intelligence generation, intelligence dissemination and coordinated response, according to the proposed theoretical model and the content validity test.

The market orientation proposed model is described in Appendix 1.

3.2. Questionnaire and data

Data used in this research were collected using an online survey sent to the managers of 32377 hotels around Western European countries.

The statistical population was composed by the set of hotel companies from, France, Ireland, Italy, Portugal, Spain and the United Kingdom.

Hotel companies were defined as tourist accommodation establishments. A local kind-of-activity unit providing a paid service (although the price might be partially or fully subsidised) short-term or short-stay accommodation services (Eurostat, 2013).

Hotel contacts were obtained in government tourism departments and yellow pages' services from the study context.

A total of 447 valid surveys were obtained, among them, 21 (4.7%) were one star hotels, 70 (15.66%) were two star hotels, 162 (36.24%) were three star hotels, 159 (35.57%) were four star hotels, and 35 (7.83%) were five star hotels.

Concerning the industrial structure, 79 (17.67%) hotels were part of a hotel chain and 368 (82.33%) were independent hotels.

Data were collected between October 2013 and January 2014. The questionnaire was part of a wider study on the relationship between market orientation and business performance, and was divided in three parts, each one related with the market orientation proposed dimensions.

All valid questionnaires were answered by the hotels' directors, marketing department directors or assistant directors.

4. Results

Data analysis was conducted in three steps. First, a scale purification was performed. Next to test whether data fit the hypothesized theoretical model, a confirmatory factor analysis (CFA) was conducted. Finally, convergent validity, discriminant validity and reliability were evaluated.

4.1. Measurement model purification

Market orientation construct was defined as a second order construct with three dimensions, intelligence generation, intelligence dissemination and coordinated response. Therefore, to conduct a confirmatory analysis, data were computed in IBM SPSS Amos 24.

Conducting a factor analysis during the early stages of developing measurement models could produce many more dimensions than those conceptually identified (Churchill, 1979). Therefore, prior to the CFA analysis, items correlations to underlying constructs were evaluated to purify the measurement model.

Item to construct correlations of 0.30 to 0.40 are the minimum acceptable, although values above 0.50 are a requirement. Statistical significance depends of the sample size. For instance, a correlation of 0.30 needs a minimum of 350 valid questionnaires (Hair, Black, Babin, & Ander-

son, 2009). Although, a correlation below 0.55 indicates that the variable shares little in common with the other measurements and is of questionable value in defining the component (Falk & Miller, 1992). Thus, during the purification process, a decision was made to raise the threshold level, and variables with correlation, to the underlying construct, less than 0.60 were removed from the model.

Computed data were evaluated and, in this preliminary stage, five variables were removed from the model. Three variables were removed from intelligence generation construct, MODDI1 (0.54), MODGI3 (0.56) and MODGI7 (0.47), and two withdrawn from coordinated response construct, MODRpC1 (0.55) and MODRpC3 (0.18).

Finished the purification process, the model fit was then evaluated.

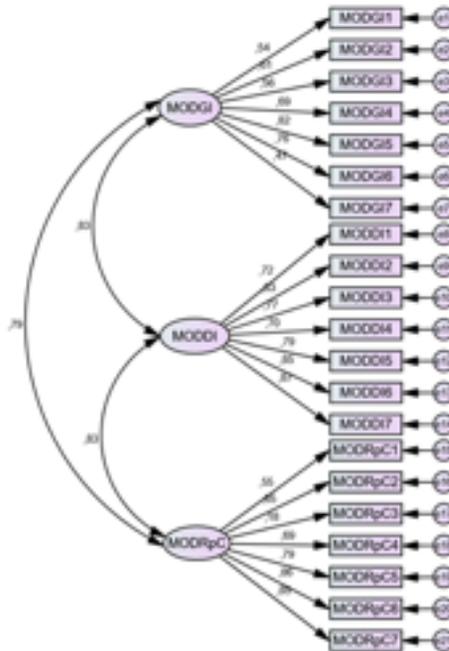


Fig. 2. Second tier measurement model

4.2. Confirmatory factor analysis

A multivariate normality test was conducted. Figure 3 summarizes data skewness, kurtosis and critical values.

Variable	skew	c.r.	kurtosis	c.r.
MODGI2	-0,643	-5,551	-0,802	-3,46
MODGI4	-1,206	-10,411	0,794	3,428
MODGI5	-0,925	-7,98	0,149	0,643
MODGI6	-0,901	-7,78	0,005	0,02
MODDI1	-0,716	-6,181	-0,701	-3,025
MODDI2	-0,267	-2,304	-1,36	-5,868
MODDI3	-0,872	-7,53	-0,432	-1,862
MODDI4	-0,039	-0,338	-1,269	-5,474
MODDI5	-0,705	-6,087	-0,584	-2,521
MODDI6	-0,569	-4,907	-0,775	-3,347
MODDI7	-0,668	-5,768	-0,671	-2,896
MODRpC2	-1,488	-12,841	1,704	7,356
MODRpC4	-0,346	-2,987	-0,91	-3,926
MODRpC5	-0,346	-2,985	-0,61	-2,631
MODRpC6	-0,452	-3,9	-0,635	-2,741
MODRpC7	-0,539	-4,653	-0,496	-2,142
Multivariate			96,813	42,643

Fig. 3. Multivariate normality test

According to the multivariate normality test conducted, data did not follow a normal multivariate distribution. In order to work around this issue, a 2000 resampling bootstrap procedure was computed (Bollen & Stine, 1992).

Data from confirmatory factor analysis were evaluated (figure 4 – model 1). Results were modest, thus, once the model was previously purified, modification indices were analysed.

	X2	df	p	X2/df	CFI	GFI	NFI	PGFI	PNFI	PCFI	RMSEA
Model 1	491.345	101	0	4.865	0.92	0.86	0.90	0.64	0.75	0.77	0.09
Model 2	403.012	99	0	4.071	0.93	0.89	0.91	0.65	0.75	0.77	0.08

Fig. 4. Model fit indicators

Modification indices revealed an obvious relationship between variables MODGI4 and MODGI6, and variables MODRpC4 and MODRpC5. Therefore, a second model (model 2) was constructed, and errors from variables MODGI4 and MODGI6, and from variables MODRpC4 and MODRpC5 were correlated, and the second model fit values were evaluated (figure 4).

Global fit indices of both models (figure 4) confirm that the second model presents a better fit, furthermore parsimonious are better than the original model. Moreover, scale content validity is assured once it maintains sixteen of the twenty-one original scale variables.

4.3. Convergent validity, discriminant validity and reliability

Average variance extracted (AVE) values were evaluated to assess convergent validity. Convergent validity is achieved if AVE values are above 0.50 (Fornell & Larcker, 1981). Extracted AVE values indicate convergent validity, MODGI = 0.543, MODDI = 0.583, and MODRpC = 0.583.

As for reliability, results show values above the 0.70 recommended value. Composite reliability were: MODGI = 0.824, MODDI=0.906, and MODRpC = 0.873.

Finally, to assess discriminant validity, a chi-square difference test was computed. Three models were constructed, each one with two of model's constructs. MODGI <-> MODDI, MODGI <-> MODRpC and MODDI <-> MODRpC. Then, each one of these models were computed correlating freely and constraining the correlation between the two constructs to 0. According Segars (1997), if the chi-square difference is significant, it confirms discriminant validity. According the extracted data from the chi-square difference, discriminant validity was confirmed.

Figure 5 describes the market orientation scale after purification and model fit.

Intelligence generation (AVE = 0.543; Composite reliability = 0.824)

MODGI2	We track our competitors activities and offers at least two times a year.
MODGI4	Our company is fully committed, when dealing with customers, in gathering information about their desires and needs, even if they didn't recognize them yet.
MODGI5	Our company seeks to obtain quickly market information that could change clients' perceptions about our products and services.
MODGI6	Our company seeks to know quickly our competitor's new products and services, each time they bring them to the market.

Intelligence dissemination (AVE = 0.583; Composite reliability = 0.906)

MODDI1	Customer information is quickly disseminated to all firm's departments.
MODDI2	In our company we have a formal information dissemination procedure, among all firm's departments, about our clients.
MODDI3	If a firm's department gets key intelligence about our clients, it spreads the information quickly to all the other departments.
MODDI4	Our company usually organizes formal meetings targeted to discuss our competitors activities and offers.
MODDI5	Information about our competitors advantages known by one of this firm departments is quickly spread to all the other departments.
MODDI6	This firm's departments are fully committed in sharing information about market information and trends affecting our business.
MODDI7	Information about market structure changes (trends, regulation, etc.), obtained by one of our firm's departments, spreads quickly to all the other departments.

Coordinated response (AVE = 0.583; Composite reliability = 0.873)

MODRpC2	When it is need to act targeted to clients needs, all departments in our company participate.
MODRpC4	We always respond to competitive activities from our competitors.
MODRpC5	Competitive actions from our competitors have a quick coordinated response from our company.
MODRpC6	All this company departments respond quickly to changes in market structure (trends, regulations, etc.)
MODRpC7	Response to market changes is done in a coordinated way by all this firm's departments.

Fig. 5. Market orientation scale after purification process

5. Conclusions, implications and limitations

5.1. Conclusions

This study sought to develop a valid and reliable market orientation measurement scale based on a sample from the hotel industry obtained in an international context. Conversely, previous studies on this subject were based on adapting earlier developed models, MKTOR (Agarwal et al., 2003; Campo et al., 2014; Zhou et al., 2009) and MARKOR (Polo-Peña et al., 2012; Qu & Ennew, 2003; Quintana-Déniz et al., 2007; Wang et al., 2012). Consequently, some innovation was brought out, contributing to develop market orientation study in service sector and particularly in hotel industry.

The developed market orientation scale was based on three dimensions, intelligence generation, intelligence dissemination and coordinated response, related with three domains: client, competition and market structure. Despite similarities with former studies, it is widely accepted that market orientation construct is composed of some degree of intelligence generation, intelligence dissemination, and a response (coordinated) about domains of client, competition and market structure. Nevertheless, a main contribution arising from this study was accomplished by identifying a set of measurement indicators: action indicators, as *frequency*, *quickness*, and *use*; and position indicators as *level*, *commitment*, and *existence*, fundamental in developing the scale items. Literature analysis did not found any similar insight in previous studies.

Therefore, this study also makes some theoretical contributions. A qualitative literature analysis was conducted to study and identify the theoretical background of the proposed market orientation scale. An extensive market orientation literature analysis was done, and a set of previous market orientation scales were evaluated as well as their construction process. To assess the scale content validity, items and dimensionality, a survey was sent to a group of marketing experts in the analyzed context, asking whether the proposed scale fills the underlying market orientation measurement construct.

Furthermore, an empirical analysis was conducted using a sample obtained from hotels from Western Europe. Firstly, the proposed market orientation scale suffered a purification process, during which five items were removed from the model once the correlation with underlying construct was below the 0.60 threshold.

Next, a confirmatory factor analysis was conducted. Fit measures were evaluated, although evidence of intercorrelations between variables led to a second model construction. The second model presented a better fit and better parsimony indicators, implying that the model dimensionality should incorporate these changes.

Moreover, market orientation scale validity and reliability were tested. Results confirm that the proposed scale presents convergent and discriminant validity. Composite reliability results, above the threshold of 0.70 (Hair, Ringle, & Sarstedt, 2011), indicate that the scale is reliable.

Consequently, this study proposed a market orientation measurement scale, developed based on a sample of hotel sector companies. The performed research found a scale able to obtain good psychometric indicators in a multicultural context. Particularly, in a context that accounts in a large amount to the international tourism.

5.2. Implications

From a theoretical perspective, this research contributes in taking a step forward in the study of market orientation in service sector and in the hospitality industry. The proposed scale implies two main developments related with two problems facing the study of market orientation in the hotel industry. Firstly, the developed scale was built based solely using data from the hospitality industry, thus, the results are not biased by factors that are external to this sector. Moreo-

ver, the scale was developed based in the international context, culturally somehow far from the MAKROR and MKTOR developing context. Accordingly, this model should be considered in measuring market orientation in multicultural contexts. A substantial part of hotels in Europe are small companies with less than 10 employees (Eurostat, 2017). On the other hand, increasing and maintaining a certain degree of market orientation is a complex process that requires considerable expenditure of money and time (Slater & Narver, 1994). Furthermore, developing market orientation requires a commitment of resources and is only useful if the benefits it affords exceeds the cost of those resources (Kohli & Jaworski, 1990). Therefore, from a managerial perspective this model implies a step forward in making hotels adopt a certain degree of market orientation and continuously assess it.

Moreover, the theoretical background and empirical research on market orientation found a positive relationship between market orientation and business performance. However, the former measurement models present validity and reliability problems and were developed based in an economic sector and a context other than the hospitality sector and the European context. Therefore, by fostering the study of market orientation in the hotel industry and proposing a measuring model suitable, this work built a tool able to develop and assess market orientation. Furthermore, the international scope of this study should give a strong support to hotel managers in order to evolve market orientation.

From an empirical perspective the proposed model has a major implication on market orientation research in hotel industry. Considering the study's international context, the scale should be able to produce valid a reliable results across different contexts.

5.3. Limitations and further research

This work deals with several important questions related to market orientation study in the hotel industry. Despite the enlightenment brought to the subject, it carries a number of limitations that suggest the need for further research. Firstly, this work main objective was to develop a measurement scale adapted to the hotel industry. Literature on this subject seeks to assess the relationship between market orientation and business performance. The aim of this study was not to study this relation, conversely, this work sought to develop a tool able to better study this relationship. Therefore, future work on this issue should seriously consider using the developed scale to evaluate market orientation and its relationship with business performance.

Furthermore, the context in study is quite large. Not only do the countries include in the sample have a large contribution in Europe and World tourism, but the number of accommodation establishments in the context is large. Accessing for the respondent is not an easy task, although, the authors found that the best methodology to deal with this issue was the online survey, with all the intrinsic cons, namely the low response rate.

On the other hand, further research should consider using the developed market orientation scale and test its relationship with business performance. Additionally, it would be interesting to evaluate the measurement constructs and test their validity and reliability country by country. Moreover, the scale should be evaluated in a context out of Europe. The proposed scale performance need to be assessed in culturally distant contexts to fully assess its features.

Additionally, research should be conducted to compare the scale with previous developed models, namely MARKOR and MKTOR scales.

Appendix 1 – Market orientation proposed scale

Intelligence generation

- MODGI1 We poll our clients to assess our products and services quality.
- MODGI2 We track our competitors activities and offers at least two times a year.
- MODGI3 We have a gathering information informal procedure (ex: diners, informal meetings, etc.) about market developments and trends (ex: market structure, etc.)
- MODGI4 Our company is fully committed, when dealing with customers, in gathering information about their desires and needs, even if they didn't recognize them yet.
- MODGI5 Our company seeks to obtain quickly market information that could change clients' perceptions about our products and services.
- MODGI6 Our company seeks to know quickly our competitor's new products and services, each time they bring them to the market.
- MODGI7 People in this firm, other than sales people, obtain informal information about our competitors.

Intelligence dissemination

- MODDI1 Customer information is quickly disseminated to all firm's departments.
- MODDI2 In our company we have a formal information dissemination procedure, among all firm's departments, about our clients.
- MODDI3 If a firm's department gets key intelligence about our clients, it spreads the information quickly to all the other departments.
- MODDI4 Our company usually organizes formal meetings targeted to discuss our competitors activities and offers.
- MODDI5 Information about our competitors advantages known by one of this firm departments is quickly spread to all the other departments.
- MODDI6 This firm's departments are fully committed in sharing information about market information and trends affecting our business.
- MODDI7 Information about market structure changes (trends, regulation, etc.), obtained by one of our firm's departments, spreads quickly to all the other departments.

Coordinated response

- MODRpC1 All our company departments are fully committed to respond our clients' needs and desires.
- MODRpC2 When it is need to act targeted to clients needs, all departments in our company participate.
- MODRpC3 Some of this company's departments take more time than it should to respond to our clients' needs and desires.
- MODRpC4 We always respond to competitive activities from our competitors.
- MODRpC5 Competitive actions from our competitors have a quick coordinated response from our company.
- MODRpC6 All this company departments respond quickly to changes in market structure (trends, regulations, etc.)
- MODRpC7 Response to market changes is done in a coordinated way by all this firm's departments.
-

References

- Agarwal, S., Erramilli, M. K., & Dev, C. S. (2003). Market orientation and performance in service firms: role of innovation. *Journal of Services Marketing*, 17(1), 68–82. <https://doi.org/10.1108/08876040310461282>
- Au, A. K. M., & Tse, A. C. B. (1995). The effect of Marketing Orientation on company performance in the service sector: A comparative study of hotel industry in Hong Kong and New Zealand. *Journal of International Consumer Marketing*, 8(2), 77–87.
- Baker, W. E., & Sinkula, J. M. (1999). The Synergistic Effect of Market Orientation and Learning Orientation on Organizational Performance. *Journal of the Academy of Marketing Science*, 27, 411–427. <https://doi.org/10.1177/0092070399274002>
- Baker, W. E., & Sinkula, J. M. (2009). The complementary effects of market orientation and entrepreneurial orientation on profitability in small businesses. *Journal of Small Business Management*, 47, 443–464. <https://doi.org/10.1111/j.1540-627X.2009.00278.x>
- Bollen, K. A., & Stine, R. A. (1992). Bootstrapping Goodness-of-Fit Measures in Structural Equation Models. *Sociological Methods & Research*, 21(2), 205–229. <https://doi.org/10.1177/0049124192021002004>
- Campo, S., Díaz, A. M., & Yagüe, M. J. (2014). Market orientation in mid-range service, urban hotels: How to apply the MKTOR instrument. *International Journal of Hospitality Management*, 43, 76–86. <https://doi.org/10.1016/j.ijhm.2014.08.006>
- Cano, C. R., Carrillat, F. A., & Jaramillo, F. (2004). A meta-analysis of the relationship between market orientation and business performance: evidence from five continents. *International Journal of Research in Marketing*, 21, 179–200. <https://doi.org/10.1016/j.ijresmar.2003.07.001>
- Caruana, A., Pitt, L., & Ewing, M. (2003). The Market Orientation-Performance Link: The Role of Service Reliability. *The Service Industrial Journal*, 23(4), 25–41.
- Chang, W., Franke, G. R., Butler, T. D., Musgrove, C. F., & Ellinger, A. E. (2014). Differential Mediating Effects of Radical and Incremental Innovation on Market Orientation-Performance Relationship: A Meta-Analysis. *The Journal of Marketing Theory and Practice*, 22(3), 235–250. <https://doi.org/10.2753/MTP1069-6679220301>
- Churchill, G. a. (1979). A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research*, 16(1), 64. <https://doi.org/10.2307/3150876>
- Deng, S., & Dart, J. (1994). Measuring Market Orientation: A Multi-factor, Multi-Item Approach. *Journal of Marketing Management*, 10, 725–742.
- Deshpandé, R., & Farley, J. U. (1998). Measuring Market Orientation: Generalization and Synthesis. *Journal of Market-Focused Management*, 2(3), 213–232. <https://doi.org/10.1023/A:1009719615327>
- Deshpandé, R., Farley, J. U., & Webster Jr., F. E. (1993). Corporate Culture, Customer Orientation, and Innovativeness in Japanese Firms: A Quadrant Analysis. *Journal of Marketing*, 57(1), 23–37.
- Ellinger, A. E., Ketchen, D. J. J., Hult, G. T. M., Elmadag, A. B., & Richey, R. G. J. (2008). Market orientation, employee development practices, and performance in logistics service provider firms. *Industrial Marketing Management*, 37(4), 353–366. <https://doi.org/10.1016/j.indmarman.2007.01.002>
- Ellis, P. D. (2006). Market Orientation and Performance: A Meta-Analysis and Cross-National Comparisons. *Journal of Management Studies*, 43(5), 1089–1107. <https://doi.org/10.1111/j.1467-6486.2006.00630.x>
- Eurostat. (2013). Glossary:Tourist accommodation establishment. Retrieved from http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Tourist_accommodation_establishment

- Eurostat. (2017). Annual enterprise statistics by size class for special aggregates of activities (NACE Rev. 2). Retrieved from <http://ec.europa.eu/eurostat/web/tourism/data/database>
- Falk, R. F., & Miller, N. B. (1992). *A Primer for Soft Modeling*. Akron, Ohio: University of Akron Press.
- Farrell, M. (2002). A Critique of the Development of Alternative Measures of Market Orientation. *Marketing Bulletin*, 13, 1–13.
- Farrell, M. A., & Oczkowski, E. (1997). An Analysis of the MKTOR and MARKOR Measures of Market Orientation: An Australian Perspective. *Marketing Bulletin*, 8(Article 3), 30–40.
- Farrell, M. A., Oczkowski, E., & Kharabsheh, R. (2008). Market orientation, learning orientation and organisational performance in international joint ventures. *Asia Pacific Journal of Marketing and Logistics*. <https://doi.org/10.1108/13555850810890066>
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.2307/3151312>
- Gauzente, C. (1999). Comparing Market Orientation Scales : A Content Analysis. *Marketing Bulletin*, 10, 76–82.
- Gray, B. J., Matear, S. M., & Matheson, P. K. (2000). Improving the performance of hospitality firms. *International Journal of Contemporary Hospitality Management*, 12(3), 149–155. <https://doi.org/10.1108/09596110010320643>
- Gray, B., Matear, S., Boshoff, C., & Matheson, P. (1998). Developing a better measure of market orientation. *European Journal of Marketing*, 32(9/10), 884–903.
- Hair, J. F. J., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate Data Analysis: A Global Perspective* (7th edition). Upper Saddle River: Prentice Hall.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *The Journal of Marketing Theory and Practice*, 19(2), 139–152. <https://doi.org/10.2753/MTP1069-6679190202>
- Harris, L. C., & Ogbonna, E. (2001). Strategic human resource management, market orientation, and organizational performance. *Journal of Business Research*, 51, 157–166. [https://doi.org/10.1016/S0148-2963\(99\)00057-0](https://doi.org/10.1016/S0148-2963(99)00057-0)
- Haugland, S. A., Myrtevit, I., & Nygaard, A. (2007). Market orientation and performance in the service industry: A data envelopment analysis. *Journal of Business Research*, 60(11), 1191–1197. <https://doi.org/10.1016/j.jbusres.2007.03.005>
- Homburg, C., & Pflesser, C. (2000). A Multiple-Layer Model of Market-Oriented Organizational Culture: Measurement Issues and Performance Outcomes. *Journal of Marketing Research*, XXXVII(November), 449–462.
- Hult, G. T. M., & Ketchen, D. J. (2001). Research Notes and Commentaries: Does market orientation matter?: a test of the relationship between positional advantage and performance. *Strategic Management Journal*, 22(9), 899–906. <https://doi.org/10.1002/smj.197>
- Jaworski, B. J., & Kohli, A. K. (1993). Market Orientation: Antecedents and Consequences. *Journal of Marketing*, 57(3), 53–70. <https://doi.org/10.2307/1251854>
- Kara, A., Spillan, J. E., & Deshields, O. W. (2005). The Effect of a Market Orientation on Business Performance: A Study of Small-Sized Service Retailers Using MARKOR Scale. *Journal of Small Business Management*, 43(2), 105–118. <https://doi.org/10.1111/j.1540-627x.2005.00128.x>
- Kirca, A. H., Jayachandran, S., & Bearden, W. O. (2005). Market Orientation: A Meta-Analytic Review and Assessment of Its Antecedents and Impact on Performance. *Journal of Marketing*, 69(April 2005), 24–41. <https://doi.org/10.1509/jmkg.69.2.24.60761>
- Kohli, A. K., & Jaworski, B. J. (1990). Market Orientation: The Construct, Research Propositions and Managerial Implications. *Journal of Marketing*, 54(April), 1–18.
- Kohli, A. K., Jaworski, B. J., & Kumar, A. (1993). MARKOR : A measure of market orientation. *Journal of Marketing Research*, 30(4), 467–477.
- Lado, N., Maydeu-olivares, A., & Rivera, J. (1998). Measuring market orientation in several populations A structural equations model. *European Journal of Marketing*, 32(1), 23–39.

- Lafferty, B. A., & Hult, G. T. M. (2001). A synthesis of contemporary market orientation perspectives. *European Journal of Marketing*, 35(1/2), 92–109. <https://doi.org/10.1108/03090560110363364>
- Langerak, F. (2003). An Appraisal of Research on the Predictive Power of Market Orientation. *European Management Journal*, 21(4), 447–464. [https://doi.org/10.1016/S0263-2373\(03\)00073-2](https://doi.org/10.1016/S0263-2373(03)00073-2)
- Lee, Y.-K., Kim, S.-H., Seo, M.-K., & Hight, S. K. (2015). Market orientation and business performance: Evidence from franchising industry. *International Journal of Hospitality Management*, 44, 28–37. <https://doi.org/10.1016/j.ijhm.2014.09.008>
- Liao, S.-H., Chang, W.-J., Wu, C., & Katrichis, J. M. (2011). A survey of market orientation research (1995–2008). *Industrial Marketing Management*, 40(2), 301–310. <https://doi.org/10.1016/j.indmarman.2010.09.003>
- Martín-Consuegra, D., & Esteban, Á. (2007). Market orientation and business performance: An empirical investigation in the airline industry. *Journal of Air Transport Management*, 13(6), 383–386. <https://doi.org/http://dx.doi.org/10.1016/j.jairtraman.2007.08.001>
- Matsuno, K., Mentzer, J. T., & Rentz, J. O. (2005). A conceptual and empirical comparison of three market orientation scales. *Journal of Business Research*, 58, 1–8. [https://doi.org/10.1016/S0148-2963\(03\)00075-4](https://doi.org/10.1016/S0148-2963(03)00075-4)
- Narver, J. C., & Slater, S. F. (1990). The Effect of a Market Orientation on Business Profitability. *Journal of Marketing*, 54(4), 20–35.
- Narver, J. C., Slater, S. F., & MacLachlan, D. L. (2004). Responsive and proactive market orientation and new-product success. *The Journal of Product Innovation Management*, 21(5), 334–347.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory* (3rd Ed.). New York: McGrawHill.
- Nwokah, N. G. (2008). Strategic market orientation and business performance. *European Journal of Marketing*, 42(3/4), 279–286. <https://doi.org/10.1108/03090560810852922>
- Parasuraman, A., Berry, L. L., & Zeithaml, V. A. (1983). Service firms need marketing skills. *Business Horizons*, 26, 28–31. [https://doi.org/10.1016/0007-6813\(83\)90043-5](https://doi.org/10.1016/0007-6813(83)90043-5)
- Pelham, A. M. (1993). *Mediating and moderating influences on the relationship between market orientation and performance*. Pennsylvania State University, State College PA.
- Pitt, L., Caruana, A., & Berthon, P. R. (1996). Market orientation and business performance: some European evidence. *International Marketing Review*, 13(1), 5–18. <https://doi.org/10.1108/02651339610111317>
- Polo-Peña, A. I. (2010). *La orientación al mercado en el sector del turismo rural: Efectos en los resultados de la actividad empresarial y en el valor percibido por el mercado*. Universidad de Granada, Granada.
- Polo-Peña, A. I., Frías-Jamilena, D. M., & Rodrigues-Molina, M. Á. (2012). Validation of a market orientation adoption scale in rural tourism enterprises. Relationship between the characteristics of the enterprise and extent of market orientation adoption. *International Journal of Hospitality Management*, 31(1), 139–151. <https://doi.org/10.1016/j.ijhm.2011.06.005>
- Pulendran, S., Speed, R., & Robert, E. W. (2003). Marketing planning, market orientation and business performance. *European Journal of Marketing*, 37(3/4), 476–497. <https://doi.org/10.1108/03090560310459050>
- Qu, R., & Ennew, C. T. (2003). An examination of the consequences of market orientation in China. *Journal of Strategic Marketing*, 11(September 2003), 201–204. <https://doi.org/10.1080/0965254032000133449>
- Quintana-Déniz, A., Beerli-Palacio, A., & Martín-Santana, J. (2007). Human resource systems as antecedents of hotel industry market orientation: An empirical study in the Canary Islands, Spain. *International Journal of Hospitality Management*, 26(4), 854–870. <https://doi.org/10.1016/j.ijhm.2006.07.007>
- Raju, P. S., Lonial, S. C., Gupta, Y. P., & Ziegler, C. (2000). The relationship between market orientation and performance in the hospital industry: a structural equations modeling approach. *Health Care Management Science*, 3(3), 237–247.

- Ruekert, R. W. (1992). Developing a market orientation: An organizational strategy perspective. *International Journal of Research in Marketing*, 9(3), 225–245. [https://doi.org/10.1016/0167-8116\(92\)90019-H](https://doi.org/10.1016/0167-8116(92)90019-H)
- Sandvik, I. L., & Sandvik, K. (2003). The impact of market orientation on product innovativeness and business performance. *International Journal of Research in Marketing*, 20(4), 355–376. <https://doi.org/10.1016/j.ijresmar.2003.02.002>
- Sargeant, A., & Mohamad, M. (1999). Business Performance in the UK Hotel Sector - Does it Pay to be Market Oriented? *The Service Industries Journal*, 19(3), 42–59. <https://doi.org/10.1080/02642069900000029>
- Segars, A. H. (1997). Assessing the unidimensionality of measurement: a paradigm and illustration within the context of information systems research. *Omega*, 25(1), 107–121. [https://doi.org/10.1016/S0305-0483\(96\)00051-5](https://doi.org/10.1016/S0305-0483(96)00051-5)
- Shapiro, B. P. (1988). What the Hells Is “Market Oriented”? *Harvard Business Review*, 66(6), 119–125.
- Shoham, A., Rose, G. M., & Kropp, F. (2005). Market orientation and performance: a meta-analysis. *Marketing Intelligence & Planning*, 23(5), 435–454. <https://doi.org/10.1108/02634500510612627>
- Siguaw, J. A., Brown, G., & Widing II, R. E. (1993). The influence of the market orientation of the firm on salesforce behaviour and attitudes. *School of Business Discussion Papers*, (Paper 43).
- Siguaw, J. A., & Diamantopoulos, A. (1994). The market orientation measure: a reexamination of Narver and Slater’s Scale. In In: C. Whan Park & Daniel Smith (eds.) *Proceedings of the American Marketing Association Winter Educators’ Conference*, Volume 5, Marketing Theory and Applications: American Mark (C. Whan Pa, pp. 150–151).
- Sin, L. Y. M., Tse, A. C. B., Heung, V. C. S., & Yim, F. H. K. (2005). An analysis of the relationship between market orientation and business performance in the hotel industry. *International Journal of Hospitality Management*, 24(4), 555–577. <https://doi.org/10.1016/j.ijhm.2004.11.002>
- Slater, S. F., & Narver, J. C. (1994). Does Competitive Environment Moderate the Market Orientation-Performance Relationship? *Journal of Marketing*, 58(1), 46–55. <https://doi.org/10.2307/1252250>
- Slater, S. F., & Narver, J. C. (2000). The Positive Effect of a Market Orientation on Business Profitability: A Balanced Replication. *Journal of Business Research*, 48(1), 69–73. [https://doi.org/10.1016/S0148-2963\(98\)00077-0](https://doi.org/10.1016/S0148-2963(98)00077-0)
- Tajeddini, K. (2010). Effect of customer orientation and entrepreneurial orientation on innovativeness: Evidence from the hotel industry in Switzerland. *Tourism Management*, 31(2), 221–231. <https://doi.org/10.1016/j.tourman.2009.02.013>
- Tse, A., Sin, L., Yim, F., & Heung, V. (2005). Market orientation and hotel performance. *Annals of Tourism Research*, 32(4), 1145–1147. <https://doi.org/10.1016/j.annals.2004.08.006>
- Vieira, V. A. (2010). Antecedents and Consequences of market orientation: a brazilian meta-analysis and an international mega-analysis. BAR. *Brazilian Administration Review*, 7(1), 40–58. <https://doi.org/10.1590/S1807-76922010000100004>
- Wang, C.-H., Chen, K.-Y., & Chen, S.-C. (2012). Total quality management, market orientation and hotel performance: The moderating effects of external environmental factors. *International Journal of Hospitality Management*, 31, 119–129. <https://doi.org/10.1016/j.ijhm.2011.03.013>
- Webb, J. R. (2002). *Understanding and Designing Marketing Research* (2nd Ed.). London: Thomson Learning.
- Wood, V. R., Bhuiyan, S., & Kieker, P. (2000). Market Orientation and Organizational Performance in Not-for-Profit Hospitals. *Journal of Business Research*, 48(3), 213–226. [https://doi.org/10.1016/S0148-2963\(98\)00086-1](https://doi.org/10.1016/S0148-2963(98)00086-1)
- Zhou, K. Z., Brown, J. R., & Dev, C. S. (2009). Market orientation, competitive advantage, and performance: A demand-based perspective. *Journal of Business Research*, 62(11), 1063–1070. <https://doi.org/10.1016/j.jbusres.2008.10.001>