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Pappas, Nikolaos and Brown, Alyssa Eve (2020) Entrepreneurial Decisions in Tourism and Hospitality during Crisis. *Management Decision*, ahead. p. 1. ISSN 0025-1747

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Entrepreneurial Decisions in Tourism and Hospitality during Crisis

Journal:	<i>Management Decision</i>
Manuscript ID	MD-10-2019-1412.R2
Manuscript Type:	Original Article
Keywords:	Recession, Entrepreneurs, Decision making, fuzzy-set Qualitative Comparative Analysis, Tourism, Greece

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3 ABSTRACT:
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6 sector, during a period of an economic crisis.
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8 The nationwide study includes the responses of 503 entrepreneurs engaged in the Greek travel,
9 tourism and hospitality industry. The research employs fuzzy-set Qualitative Comparative Analysis
10 (fsQCA), and examines trust, enterprising negotiation power, tourism decision-making
11 considerations, and crisis effects. It also includes the categorical data of operational mode and
12 company type.
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15 The analysis has generated three different pathways for entrepreneurial decision-making during
16 crisis in the Greek tourism and hospitality sector. Those pathways are: (i) crisis conditions (ii)
17 enterprising operations and focus, and (iii) enterprising capabilities.
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19 Due to the limited employment of fsQCA in the tourism sector, its full potential is still to be explored.
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22 decision-making, according to the characteristics of their firms and their market orientation.
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24 CUST_SOCIAL_IMPLICATIONS_(LIMIT_100_WORDS) :No data available.
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26 Theoretically the study contributes by enhancing understanding of entrepreneurial decision-making
27 during periods of crisis. In the methodological domain the research employs fsQCA, which has only
28 recently started to be used in tourism and hospitality, and generally the service sector.
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Entrepreneurial Decisions in Tourism and Hospitality during Crisis

Abstract

Purpose: The article examines the entrepreneurial decision-making in the Greek tourism and hospitality sector, during a period of an economic crisis.

Design/methodology/approach: The nationwide study includes the responses of 503 entrepreneurs engaged in the Greek travel, tourism and hospitality industry. The research employs fuzzy-set Qualitative Comparative Analysis (fsQCA), and examines trust, enterprising negotiation power, tourism decision-making considerations, and crisis effects. It also includes the categorical data of operational mode and company type.

Findings: The analysis has generated three different pathways for entrepreneurial decision-making during crisis in the Greek tourism and hospitality sector. Those pathways are: (i) crisis conditions (ii) enterprising operations and focus, and (iii) enterprising capabilities.

Research limitations/implications: Due to the limited employment of fsQCA in the tourism sector, its full potential is still to be explored.

Practical implications: The study provides three different pathways that Greek tourism entrepreneurs select for their decision-making, according to the characteristics of their firms and their market orientation.

Originality/value: Theoretically the study contributes by enhancing understanding of entrepreneurial decision-making during periods of crisis. In the methodological domain the

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3 research employs fsQCA, which has only recently started to be used in tourism and
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5 hospitality, and generally the service sector.
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10 **Keywords:** recession; entrepreneurs; decision making; fuzzy-set Qualitative Comparative
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12 Analysis; tourism; Greece
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17 **Paper Type:** Research Paper
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Management Decision

Introduction

Entrepreneurial activity is socially dependent on the context in which it operates (Granovetter, 1985), whilst entrepreneurial intentions and decision-making are considered as the first step towards entrepreneurship (Arshad et al., 2019; Krueger et al., 2000). It acts in accordance with the local/peripheral/national values, sense making, and personal and social networks related within the area of interest (Letaifa and Goglio-Primard, 2016), empowering economic growth (Ashraf et al., 2019). The entrepreneurship literature explores extensively the factors that shape new business creation and explains disparities among different periods and countries (Simon-Moya, Revuelto-Taboada, & Fernandez-Guerrero, 2014). However, it fails to offer a unanimous view on the way the environment affects the dominant entrepreneurial profile and consequently entrepreneurship dynamics (Devece, Peris-Ortiz, and Rueda-Armengot, 2016).

Economic crises are considered to be a powerful push factor (Amit & Muller, 1995), as the exponential increase of unemployment during economic crises encourages self-employment due to the absence of other opportunities (Dawson & Henley, 2012). Conversely, pull factors attract entrepreneurs to create new businesses in order to seize market opportunities (Devece et al., 2016). As the first fundamental step in the process of entrepreneurship, economic conditions also affect the ability to recognise business opportunities (Gaglio & Katz, 2001; Gomezel & Rangus, 2018). Thus, the current financial turmoil and its resulting macroeconomic downturn has numerous implications for both, entrepreneurs and companies (Beltrame et al., 2019). In addition, there are high levels of complexity in terms of the effect of an economic crisis and entrepreneurial performance (Peris-Ortiz, Fuster-Estruch, & Devece-Caranana, 2014), thus the evaluation of entrepreneurial activities involves complex criteria to examine the generated relationships (Tsai and Kuo, 2011).

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6 In tourism and hospitality, when a crisis appears the industry's volatility is strongly felt, since
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8 the vast majority of businesses are Small and Medium Enterprises (SMEs) and a considerable
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10 amount of people are self-employed, trying to carve out a living in the sector (Dahles and
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12 Susilowati, 2015). Furthermore, the tourism industry is characterised by countless interacting
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14 activities and entities that are critically vulnerable to crises (Baggio, 2008; Cole, 2009), due
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16 to the fact that its products and services are characterised by high elasticity, since -
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18 consumption wise - they are considered as luxurious (Pappas, 2019). Nevertheless, the
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20 literature is predominantly silent concerning the entrepreneurial decision-making in the sector
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22 during an economic crisis.
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29 Greece has experienced high growth rates since 2000, but the lack of the appropriate fiscal
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31 consolidation combined with the continuous false reporting of fiscal data have undermined
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33 the credibility of the country (Kourteas and Vlamis, 2010). Furthermore, the entrance of
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35 Greece in the European Monetary Union (EMU) has led to a decline in competitiveness, and
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37 the continuous increase of "twin deficits" along with insufficient structural reforms in home
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39 regarding the flexibility of the labour market, market competition and social security (Pappas,
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41 2015). These conditions have led Greece to issue new bonds at short periods of maturity and
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43 at higher interest rates compared to Germany, which operates as the "anchor" of the EMU
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45 (Malliaropoulos, 2010). The Greek debt crisis first unfolded in November 2009, whilst the
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47 tightening of its fiscal policy was perceived as a long lasting phenomenon (Polito and
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49 Wickens, 2012). The delay of the European governments to provide a signal for the bailout of
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51 the Greek economy (this was finally held in March 2010), has resulted to the deepening of
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53 the Greek fiscal crisis, whilst its public debt became unsustainable (Kourteas and Vlamis,
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55 2010).
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Greek tourism has been hit hard by the economic crisis, as tourism and hospitality industries are always influenced by the wider financial conditions on national and international levels (Pappas, 2015). The recession has resulted in the drop of tourism contribution to Gross Domestic Product (GDP) by two percent, whilst tourism receipts and tourism consumption have decreased by 18 and 11.5 percent respectively (Kapiki, 2012). Despite these effects, tourism was seen as the sector that can contribute most to the economic recovery of Greece (Smith, 2011).

This study focuses on the complex entrepreneurial decision-making process in the tourism and hospitality sector using the Greek economic crisis as a case study. It is based on the results of a nationwide survey to Greek entrepreneurs, and focuses on the implications of trust, the enterprising negotiation power, the decision-making considerations in tourism and hospitality, and the effects of the economic crisis. From a theoretical perspective, the study contribution concerns the provision of an understanding of the entrepreneurial decision-making environment under crisis conditions, and its implications to the tourism and hospitality industry. Methodologically, the research employs fuzzy-set Qualitative Comparative Analysis (fsQCA), which has only recently been adopted in the tourism and hospitality domain and the service sector more generally, offering multiple pathways that can lead to the same outcome.

Chaos and complexity

Chaos theory was first introduced in 1963 (Lawrence, Feng & Huang, 2003) and focuses on the comprehension on how chaos and order happen and ultimately lead to changes both in the organisation and the environment (Farazmand, 2003). The theory suggests that organisational

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3 structure and action are likely to influence both the company and the environment (Levy,
4 1994). Thus, there is a possibility to establish a pattern of factors leading to instability, but it
5 is difficult to provide standardised answers since organisations and their human capacities
6 vary (Silvestre et al., 2018). Complexity theory evolved from chaos theory (Pappas, 2019)
7 and acknowledges that many things around us cannot be explained via cause and effect
8 relationships, since specific effects may appear from random interactions, without having any
9 deterministic cause (Kretzschmar 2015). The theory is set to explain the way that the
10 interacting parts of a complex system can provide a collective behaviour of the system itself,
11 and the mode that this system can simultaneously interact with its environment (Gibbs and
12 Van Orden, 2012)

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28 Both, theories (chaos; complexity) focus on nonlinear systems with high sensitivity to initial
29 conditions (Hock, 1999). Their difference concerns the predictability of events since chaos
30 theory suggests that there can be no forecast, whilst the theory of complexity indicates that
31 this behavioural unpredictability can be framed into a quasi-stable pattern (Olmedo &
32 Mateos, 2015).

33 34 35 36 37 38 39 40 41 42 *Complexity in entrepreneurial decision-making*

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44 In economics and finance, chaos means that the system itself is inherently unstable and
45 generally harmful to the economic system, whilst previous studies have indicated that
46 economics and finance are exceptionally complex nonlinear systems involving numerous
47 subjective factors (Wen and Yang, 2019). The entrepreneurial context is characterised by a
48 complex and uncertain setting, making its predictions less accurate and useful (Dew, Read,
49 Sarasvathy, & Wiltbank, 2009; Read, Song, & Smit, 2009). As a result, forecasting becomes
50 increasingly complex, so decision-makers can benefit by using decision logics to reduce the
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3 need for prediction (March, 2006). The high complexity of entrepreneurial decision-making
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5 can be handled by scholars through the replacement of linear measurement models consisting
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7 of relationships between two variables with models consisting of causal configurations and an
8
9 outcome (Stroe et al., 2018).
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15 Nowadays, due to the exponential economic challenges, many countries aim to obtain a
16
17 competitive edge and revitalize the economy through encouraging entrepreneurship (Wu,
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19 2017). In tourism and hospitality the performance of companies is determined by a highly
20
21 complex interplay of factors, both internal and external to the firms (Kallmuenzer et al.,
22
23 2019). In addition, the tourism products and services (i.e.: the offered service packages and
24
25 product bundles; the unique customer relationships and networks) are characterised by
26
27 considerable levels of complexity (Carmichael & Morrison, 2011). Thus, the entrepreneurial
28
29 activity in tourism and hospitality is dependent upon the business environment in terms of
30
31 complexity, dynamism, and available resources, since those factors represent the extent of
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33 uncertainty that a firm is confronted with (Miller & Friesen, 1983).
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41 The Greek economic crisis has created a chaotic business environment in the Greek tourism
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43 and hospitality industry, substantially increasing the complexity of their entrepreneurs'
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45 tourism decision-making. Olmedo and Mateos, (2015) suggest that in the tourism industry the
46
47 decision-making process is characterised by high complexity levels. This is due to the fact
48
49 that tourism decision-making includes high diversity aspects, constant and rapid change, the
50
51 impossibility of perfect knowledge due to imperfect information, a substantial number of
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53 elements interrelated with each other, and the co-existence of simultaneous order and
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55 disorder in a capable manner to compare the fundamental concepts involved in the
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57 complexity paradigm versus the traditional ones in simplification paradigm (Olmedo, 2010).
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3 In addition, the Greek recession has generated significant pressures in disposable tourism
4 income and occupational uncertainty, having a substantial impact upon tourism purchasing
5 intentions (Papatheodorou and Pappas, 2017), and resulting in an exponential increase of the
6 complexity of consumers' decision-making.
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14 Despite the importance of the examination of complexity in entrepreneurial systems, very
15 little investigation into the complexities of those systems has been done (Roundy et al.,
16 2018). As it is also indicated by Motoyama and Knowlton (2017), although the emergence of
17 entrepreneurship has been recognised by the literature, the direct theorising about the
18 complex decision-making process is lacking. In terms of tourism and hospitality, Van der Zee
19 and Vanneste (2015) highlight that the nature of research on entrepreneurial decision-making
20 is very explorative and hasn't yet received in-depth attention. Similarly, Thomas et al. (2011)
21 claim that the lack of research is rather surprising considering that small entrepreneurial firms
22 dominate the tourism and hospitality sector.
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38 **Methods**

39 *Participants*

40 The study is based on a nationwide survey and examined the perceptions of entrepreneurs in
41 the Greek travel, tourism and hospitality industry. The research was held from May to July
42 2019. Structured questionnaires written in Greek were distributed to respondents via email.
43 The email database was sourced from the Greek Travel Pages (www.gtp.gr). Concerning
44 research bias, listwise deletion was adopted (exclusion of the entire record from the analysis),
45 since it is considered as the least problematic method for handling missing data (Allison,
46 2001).
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Sample determination and collection

As Akis et al. (1996) suggest, when we deal with unknown proportions of a population, a conservative response format of 50/50 (50 per cent of the respondents have negative perspectives, and 50 per cent have positive ones) needs to be selected in order to determine the sample size. A minimum confidence level of 95 per cent and a maximum sampling error of 5 per cent were selected. Using a t-table the cumulative probability (Z) was 1.96 (Sekaran and Bougie, 2013). Following Akis et al. (1996), the appropriate sample size is:

$$N = \frac{Z^2(\text{hypothesis})}{s^2} \Rightarrow N = \frac{1.96^2(0.05)(0.05)}{.05^2} = 384.16 \text{ Rounded to } 400$$

The calculation of the sampling size is independent of the overall size of the population, since the sampling size determines the error (Aaker and Day, 1990). More than 4000 emails were sent to Greek tourism and hospitality entrepreneurs. In total, the study includes 503 useful questionnaires, generating a statistical error of 4.37 per cent.

Measures

The research consists of 32 items, measured using Likert Scale (1 strongly disagree/5 strongly agree) statements, and two categorical (operational mode – [annual; seasonal]; company type [travel and tourism; hospitality]) questions. The questionnaire was based on prior research by Kim and Kang (2014) [five statements for trust], Michel et al. (n.d.) [five statements for enterprising negotiation power], Dwyer et al. (2012) [ten statements for tourism decision-making considerations], Pappas (2018) [five statements for crisis effects], and Selby et al. (2011) [seven statements for entrepreneurial decision-making in tourism].

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3 For the examination of complex configurations the research uses fuzzy-set Qualitative
4 Comparative Analysis (fsQCA). This is a set-theoretic research method, which is based on
5 Boolean algebra, and has the ability to explain cases as combinations of attributes (Schneider
6 & Wagemann, 2010). This means that fsQCA identifies factorial combinations, rather than
7 individual factors, that generate the same outcome (Gligor et al., 2019). It is a mixed-methods
8 technique, because it combines quantitative empirical testing (Longest and Vaisey, 2008) and
9 qualitative inductive reasoning based on specific cases' analysis (Ragin, 2000). The logical
10 complexity is based on the fact that combining different characteristics different results can
11 be generated through their combination with other events or conditions (Kent and
12 Argouslidis, 2005). As Woodside and Zhang (2013) suggest, the research also examined
13 negated sets (presence or absence of a given condition). In these sets, the membership
14 calculation is made by taking in the original fuzzy-set one minus the membership score of the
15 examined case (Skarmeas et al., 2014). The study uses the symbol “~” for the indication of an
16 absent attribute.

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38 Ordanini et al. (2014) indicate that in set theory a fuzzy measures' sub-relation is consistent
39 when in an attributional causal set the scores of membership are consistently equal or less to
40 the scores of membership in the outcome set. As a result, the coverage includes the
41 assessment of the sufficient empirical importance of the configurations (Ordanini et al.,
42 2014). Hence, the calculation of consistency and coverage is:

$$39 \text{ Consistency}(X_i \leq Y_i) = \sum_i [\min(X_i; Y_i)] / \sum_i (X_i)$$

$$40 \text{ Coverage}(X_i \leq Y_i) = \sum_i [\min(X_i; Y_i)] / \sum_i (Y_i)$$

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6 where, for entrepreneur i , X_i is the membership score in the X configuration and Y_i is the
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8 score of membership for the outcome condition.
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12 Following Skarmeas et al. (2014), the examined relationships generate a general asymmetry
13 when the absolute values of all correlated coefficients are lower than .60. As it is illustrated in
14 Table 1, all the correlation values are less than .60, suggesting that the causal conditions
15 generated by the alternative combinations are likely to lead to the same outcome condition
16 (Woodside, 2013). The research uses fsQCA aiming to examine the entrepreneurial decision
17 making in tourism and hospitality in a period of an economic crisis. It achieves the set aim,
18 since it estimates the complex antecedent conditions (causal recipes) leading to high
19 membership in the conditions of: (i) trust (ii) enterprising negotiation power (iii) tourism
20 decision-making considerations, and (iv) crisis effects. It also takes under consideration the
21 categorical variables of operational mode and company type.
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38 Please insert **Table 1**
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43 The nonlinear metric of consistency is analogous to the linear metric of correlation, and the
44 nonlinear metric of coverage is analogous to the linear “coefficient of determination”
45 (Woodside, 2014, p.2499). A generated solution is acceptable and informative when the
46 solution consistency is above .74 and the respective coverage of the model(s) varies from .25
47 to .75 (Skarmeas et al., 2014).
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56 *Implementation of fsQCA algorithms*
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3 The study uses fsQCA in order to achieve a holistic view of its antecedents. It is calibrated by
4 using a group of 39 randomly selected individual cases. It examines the entrepreneurial
5 decision-making in tourism (f_ed) by using the calibrated fuzzy-sets of operational mode
6 (f_om), company type (f_ct), trust (f_t), enterprising negotiation power (f_np), tourism
7 decision-making considerations (f_dc), and crisis effects (f_ce).
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17 **Results**

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19 As previously mentioned, the study includes 503 useful questionnaires. The profile of the
20 sample is presented in Table 2. As the table illustrates, the majority of the firms (57.3
21 percent) operate seasonally. This is due to the mainly seasonal character (April till
22 November) of Greek tourism. Moreover, nearly two thirds (60.6 percent) of the sample
23 concern hospitality firms, since the accommodation sector dominates the Greek tourist
24 product.
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35 Please insert **Table 2**

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40 The descriptive statistics of the research are presented in Table 3. In terms of the ‘trust’
41 construct’ the highest trend of agreements appears to be in the statement concerning
42 carefulness when dealing with people. The statement dealing with the prerequisites to
43 negotiate a favourable deal appears to be the most important in the ‘enterprising negotiation
44 power construct’. Concerning ‘tourism decision-making considerations’, the most important
45 aspect appears to be the sustainability principles. Cost reduction is the dominant concern of
46 Greek entrepreneurs when dealing with ‘crisis effects’. Finally, when dealing with the
47 ‘entrepreneurial decision-making in tourism’ the Greek entrepreneurs seem to focus more on
48 the available resources.
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10 Since the examined items of the study were based on the previous research of Kim and Kang
11 (2014), Michel et al. (n.d.), Pappas (2018), and Selby et al. (2011), Confirmatory Factor
12 Analysis (CFA) was followed. As also suggested by Norman and Streiner (2008), the
13 factorial analysis (Table 4) has set a minimum acceptable value of .4 (two items have been
14 eliminated due to low commonality). Cronbach's A was used for the measurement of internal
15 consistency, and all constructs exceeded .7, which is the minimum acceptable value (Nunally,
16 1978). Moreover, the research examined the convergent validity by employing Average
17 Variance Explained (AVE), whilst in all cases it was higher than .5 indicating an adequate
18 validity level (Kim, 2014). In addition, the Composite Reliability (CR) in all constructs
19 exceeded .8 (minimum acceptable value: 0.7; Huang et al., 2013).
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35 Please insert **Table 4**
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40 *Sufficient complex configurations*

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42 The fsQCA analysis has emerged three solutions (Table 5). The first sufficient complex
43 configuration (f_om*~f_ct*f_t*~f_np*~f_dc*f_ce) showcases that the inclusion of
44 operational mode with high trust, enterprising negotiation power and crisis effects is able to
45 lead to high scores of membership in terms of entrepreneurial decision-making in tourism.
46
47 This configuration appears to have the highest consistency (.86722) and coverage (.41487)
48 levels of all three generated solutions. The second complex solution generated from fsQCA
49 analysis (f_om*f_ct*~f_t*f_np*f_dc*~f_ce) indicates that the inclusion of both categorical
50 variables (operational mode; company type) with high enterprising negotiation power, and
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3 tourism decision-making considerations can lead to high membership scores dealing with
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5 entrepreneurial decision-making. This configuration has the lowest coverage (.37409) of all
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7 three solutions. The third sufficient statement ($\sim f_{om} * f_{ct} * \sim f_{t} * f_{np} * \sim f_{dc} * \sim f_{ce}$) includes
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9 company type and high scores of membership for enterprising negotiation power. This is the
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11 solution with the lowest consistency (.80481).
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17 Please insert **Table 5**
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22 Discussion

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24 As Khefacha and Belkacem (2015) indicate, entrepreneurial intention and decision-making is
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26 related to a composite of some business environment and perception factors, and assumes that
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28 individuals take their decisions according to the simple rules relating perceptions (of the
29
30 attributes concerning the available alternatives) to preferences (towards them) both of which
31
32 are modelled using fuzzy-sets. **The set theory suggests that the set membership of elements is**
33
34 **approached in binary terms, whilst an element either belongs or not to the set. On the other**
35
36 **hand, fuzzy-set theory allows the membership of elements in a set to be gradually assessed.**
37
38 **Qualitative Comparative Analysis (QCA) is used when we want to determine specific logical**
39
40 **conclusions that can be derived from a dataset, and it is done so by the application of logical**
41
42 **inference for the determination of the generated implications (Ragin, 1987). Conversely, it is**
43
44 **appropriate to use fuzzy-set Qualitative Comparative Analysis (fsQCA) when the samples are**
45
46 **too large to be handled by QCA, or the research includes considerable uncertainty**
47
48 **(complexity) (Ragin, 2008; Rihoux, 2013) as in the case of entrepreneurial decisions. With**
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51 special reference to fsQCA and entrepreneurship, the method is able to reveal implications
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54 for future uses, and is considered as the most appropriate for the examination of complex
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56 entrepreneurial decision-making (Kraus et al., 2017). Hence, the findings generated by the
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3 implementation of fsQCA highlight the basis of a fruitful discussion. The first sufficient
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5 configuration suggests that crisis conditions considerably affect the decision-making of
6
7 entrepreneurs in the travel, tourism and hospitality industry. In general, crises have a strategic
8
9 impact upon entrepreneurial decision-making, since they have a major effect on the
10
11 company's internal and external stakeholders (Fiksel et al., 2015; Netz et al., n.d.). In
12
13 addition, during crises, the critical external threat can force entrepreneurial decision-making
14
15 to concentrate on prospective losses (Osiyevskyy & Dewald, 2018). According to prospect
16
17 theory, this loss framing will provide a less risk adverse decision-making that may lead to
18
19 structural and organisational changes (Holmes et al., 2011; Saebi et al., 2017). Moreover, the
20
21 solution in reference also highlights that the decision-making is particularly influenced by the
22
23 operational mode (annual; seasonal) of tourism business. According to Hornaday (1992) the
24
25 three main entrepreneurial dimensions concern: (i) economic innovation (ii) organization
26
27 creation, and (iii) profit-seeking in the market sector. This aspect further explains the
28
29 selection of this pathway from the Greek tourism-oriented entrepreneurs. This can also be
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31 explained by the fact that most seasonal tourism related businesses have a lower negotiation
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33 power since they are more dependent on tour operators and mass tourism, than companies
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35 that operate on an annual basis.
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45 The financial crisis has raised concerns during the last decade, and its effect on companies
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47 has created the need for seeking out useful quantitative financial information to both analysts
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49 and investors so that they will be able to evaluate enterprising operations and analyse their
50
51 position within a sector (Chen et al., 2016). Moreover, the entrepreneurial cognitive,
52
53 motivational, and emotional regulatory abilities interact together within specific social
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55 situations (in our case recession), with specific social actors (Mitchell et al., 2011). The
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57 second sufficient configuration concerns the enterprising operations and focus, highlighting
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3 the importance of entrepreneurial decision-making during an era of instability in the tourism
4 sector. According to Lisboa et al (2016) a proactive, forward-looking enterprise, which timely
5 spots, anticipates, and acts on market changes, is likely to compensate for its low risk-taking
6 behaviour and further develop explorative capabilities. As it is showcased, the negotiation
7 power of a company is interrelated with the tourism decision-making, affecting the
8 entrepreneurial decisions, and also impacted by the company's operational mode and
9 company type. This finding lets us comprehend the importance of the enterprising operations
10 and focus as an influential aspect of tourism related entrepreneurial decisions.
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24 The third sufficient complex statement is focused on enterprising capabilities. Entrepreneurial
25 decision-making is directly connected with the capabilities of the company, influenced by the
26 negotiation power of the company in accordance with its type of operations (travel and
27 tourism; hospitality). As it is apparent, the performance of a company is dependent on its
28 ability to maintain efficient and effective relationships with customers and suppliers (Teixeira
29 & Borsato, 2019). These relationships are predominantly based on the negotiation power and
30 management efficiency of the company, as well as the negotiation strategies and skills of the
31 decision-makers (Li et al., 2018). This means that those aspects depend on the ability of the
32 firm and the managerial capability to achieve the desired aim. Thus, the research findings
33 suggest that enterprising capabilities can have a substantial effect on entrepreneurial decision-
34 making.
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51 *Study Implications*

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53 As Zahra et al. (2005) suggest, the examination of the generated interrelationships between
54 environment, experience, and entrepreneurs' choice of different strategies (in our case
55 pathways) can contribute to future entrepreneurial research. It needs to be taken under
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3 consideration that the entrepreneurial decision-making starts with some subjective attributes,
4 goals, preferences and beliefs about the business environment, and includes subjective
5 assessments about resources, consumer preferences, and expectations about potential futures
6 such as profits and firm growth (Foss et al. (2019). The study contributes to the theoretical
7 domain by broadening our understanding in terms of entrepreneurial tourism decision-making
8 during a period of an economic crisis, by trying to answer the fundamental question set from
9 Mitchell et al. (2007) on ‘how do entrepreneurs think?’, in our case in the tourism and
10 hospitality industry during recession. The research analysis through fsQCA has generated
11 three different pathways that travel, tourism and hospitality entrepreneurs in Greece
12 formulate their decision-making. Using six different simple conditions (operational mode;
13 company type; trust; enterprising negotiation power; tourism decision-making considerations;
14 crisis conditions) the generated complex configurations of the study highlight that different
15 combinations can lead to the same outcome, highlighting the complexity of potential
16 variations of entrepreneurial decision-making in the sector.
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38 Concerning methodology, the study employs fsQCA aiming to identify different pathways,
39 and the involvement of different factorial combinations able to provide a specific outcome
40 (Skarmeas et al., 2014). The fuzzy logic integration for decision-making aspects represents a
41 reliable methodology that can be appealing for entrepreneurs (Khefacha & Belkacem, 2015).
42 This mixed method has only recently started to be employed in the travel, tourism and
43 hospitality domain, whilst its full potential is still unexplored (Pappas, 2019).
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54 Several implications are also generated in the managerial domain. First, the findings highlight
55 the differentiation of entrepreneurial decision-making in terms of the categorical
56 classification of the enterprise (operational mode; company type). Indisputably, the company
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3 characteristics play an important role upon decision-making. It is evident that successful
4 entrepreneurial decision-making is based on in-person interactions and company
5 characteristics, forming close partnerships with leaders of other organisations who deal with a
6 similar client base (Muñoz & Kibler, 2016). However, the type of those characteristics may
7 vary the undertaken decisions, depending on the pathway each company prefers to select.
8 This is because entrepreneurs should have the ability to evaluate the potential success of their
9 business, and the risk/return equation, and they do so by evaluating strategic, market, and
10 financial variables in terms of firm characteristics (Mitchell et al., 2004). For example, the
11 operational mode is important when firms in the tourism and hospitality sector focus on crisis
12 conditions. Conversely, the company type is important if a firm selects as a basis of its
13 decision-making its enterprising capabilities, whilst both categories significantly contribute if
14 the entrepreneurs rely their decision on the firm's operations.

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33 Following Shepherd et al. (2015), this study is categorised into decision-making topics
34 associated with entrepreneurship as the external environment (in our case the economic
35 crisis) as the decision context. The same study indicates that “entrepreneurs are
36 heterogeneous in the institutional environments they face, and these differences influence
37 entrepreneurial decision-making” (p.35) and “the outcomes of entrepreneurial decision-
38 making depend on the nature of the environment” (p.36). As also highlighted from the
39 findings, all the examined conditions are important in at least one of the generated solutions,
40 but none of them are present in all sufficient complex statements. This means that the
41 combination of simple conditions does not necessarily have to include a specific antecedent.
42 Thus, entrepreneurs can formulate their decision-making depending on the characteristics that
43 fit in most to their activities and engagement. This means that if a firm has a weakness in a
44 specific simple condition, it can very well select some other pathway that leads to the same
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3 outcome. Moreover, this aspect highlights the importance of fsQCA use for the travel,
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5 tourism and hospitality industry in order to further comprehend the market environment, and
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7 formulate alternative pathways for enterprising decision-making.
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10 11 12 **Conclusions**

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14 The article employs fsQCA for the examination of entrepreneurial decision-making in the
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16 travel, tourism and hospitality sector in Greece, during a period of recession. The findings
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18 have revealed that Greek tourism and hospitality entrepreneurs formulate their decision-
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20 making by using three different pathways: (i) crisis conditions (ii) enterprising operations and
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22 focus, and (iii) enterprising capabilities. The results provide a better understanding for the
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24 complex decision-making process of entrepreneurs in the tourism and hospitality sector using
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26 as a case study the Greek recession.
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34 Despite the theoretical and methodological contributions of the study, several limitations
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36 need to be mentioned. The first limitation derives from the study's methodological
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38 contribution, since the use of fsQCA in the tourism domain (and service sector in general) is
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40 very limited. Thus, it is advisable for more studies to focus on this mixed method, in order to
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42 better encapsulate its full potential. Second, the study has been conducted with Greek
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44 tourism-related entrepreneurs during economic crisis conditions. If the research is to be
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46 repeated with entrepreneurs operating in a different economic sector and/or different external
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48 environment the results may vary. Therefore, the generalisations of the research outcomes
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50 should be made with caution. This means that several issues such as the special and unique
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52 conditions existing in each and every destination, the different operational modes, the
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54 business culture, and the political and economic environment should be taken under
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56 consideration. Finally, the research has included categorical characteristics of the firms. It
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3 would have been interesting if further research also examines the individual characteristics of
4 the respondents (i.e.: age; level of education; work experience in the sector), providing
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6 further insight on entrepreneurial decision-making.
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12 Methodologically, the ability of fsQCA to identify and present sufficient complex statements
13 on a specific issue (in our case entrepreneurial decision-making) can also complementary
14 include other mixed methods analyses such as Necessary Condition Analysis (NCA), and
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16 conjoint analysis. In addition, the use of fsQCA can further evaluate the behavioural
17
18 complexity of entrepreneurs from exogenous (i.e.: competition levels; sectorial dependency)
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20 and endogenous (i.e.: self-esteem; management expertise) factors. Those aspects can create
21
22 versatile grounds for including fsQCA as one of the important methods of analysis in the
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24 tourism and hospitality domain, and generally the service sector.
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Table 1: Correlation matrix

		1	2	3	4	5
1	Trust	1				
2	Enterprising Negotiation Power	.018	1			
3	Tourism Decision-making	.076	-.001	1		
4	Crisis Effects	.057	-.015	.091	1	
5	Entrepreneurial Decision-making	-.029	-.019	.012	.071	1

Management Decision

Table 2: Profile of the sample

	N	%
<i>Operational Mode</i>		
Annual	215	42.7
Seasonal	288	57.3
<i>Company type</i>		
Travel and tourism	198	39.4
Hospitality	305	60.6

Management Decision

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Table 3: Descriptive statistics

		Means	SD	Kurtosis	Skewness	Operat. Mode		Comp. Type	
						Annual	Seasonal	T&T	Hosp.
<i>Trust</i>									
T1	I need to be very careful when dealing with people.	4.46	.510	-1.669	.045	4.51	4.42	4.45	4.46
T2	In general I trust the police.	2.26	.784	.897	.699	2.44	2.13	2.43	2.15
T3	In general I trust civil services.	2.71	.858	-.623	.007	2.83	2.62	2.75	2.68
T4	In general I trust public institutions.	2.60	.826	-.523	.326	2.70	2.52	2.62	2.59
T5	In general I trust private companies.	2.25	.999	-1.023	.260	2.27	2.23	2.13	2.32
<i>Enterprising Negotiation Power</i>									
NP1	It is important for me to have a more powerful initial negotiation position than the counterpart.	3.87	.697	.112	-.308	3.91	3.84	3.84	3.88
NP2	It is important for me to have the potential to be the stronger party during negotiations.	3.60	.888	-.585	-.386	3.66	3.57	3.69	3.55
NP3	It is important for me to have all prerequisites to negotiate a favourable deal.	4.09	.739	-.490	-.348	4.20	4.00	4.11	4.08
NP4	It is important for me to have realized a very lucrative deal price compared to other deals.	3.38	1.004	-1.183	-.119	3.50	3.28	3.50	3.30
NP5	It is important for me to be the stronger party during negotiations.	3.46	.958	-.987	-.232	3.54	3.40	3.56	3.39
<i>Tourism Decision-making Considerations</i>									
DC1	Tourism enterprises must engage in long-term planning.	3.81	.786	.149	-.485	3.92	3.72	4.03	3.66
DC2	Sustainability principles should underpin tourism development.	4.00	.818	-.048	-.548	4.06	3.95	4.14	3.91
DC3	Tourism managers need to have sound knowledge of e-commerce in order to achieve competitive advantage.	3.46	1.011	-.992	-.225	3.60	3.35	3.75	3.27
DC4	Tourism managers need to have sound knowledge of the use of IT (Information Technology) in order to achieve competitive advantage.	3.27	1.057	-1.267	.012	3.27	3.27	3.46	3.15
DC5	Tourism firms should form strategic alliances for purposes such as enterprise marketing and product development.	3.39	1.012	-1.082	-.212	3.50	3.31	3.72	3.18

DC6	Trade in tourism should be 'fair' in its distribution of the rewards of tourism to different stakeholders.	3.71	.793	-.193	-.252	3.80	3.64	3.89	3.59
DC7	Firms must aim to achieve sustainability in their operations if the destination as a whole is to conform to sustainability principles.	3.93	.818	-.667	-.258	3.95	3.91	4.05	3.85
DC8	A yield focus is more important than a tourist numbers focus, for a winning enterprising strategy.	3.76	.831	-.135	-.442	3.90	3.65	4.02	3.59
DC9	Consumers should be educated to purchase tourism products which match environmental constraints.	4.05	.843	-.750	-.411	4.03	4.06	4.16	3.98
DC10	Visitor needs should be balanced with a company's objectives.	4.16	.739	-.167	-.533	4.14	4.17	4.20	4.13
<i>Crisis Effects</i>									
CE1	We reduced costs.	4.07	.731	.129	-.507	4.28	3.91	4.25	3.95
CE2	We increased marketing efforts.	3.42	1.234	-.982	-.413	3.52	3.34	3.67	3.26
CE3	We prepared and adopted crisis plans.	3.34	1.128	-.768	-.236	3.40	3.28	3.55	3.20
CE4	We improved product design.	3.27	1.093	-.986	-.028	3.29	3.26	3.44	3.17
CE5	We decided to make partnerships and collaborate with other businesses.	3.23	1.221	-1.295	-.045	3.33	3.15	3.45	3.08
<i>Entrepreneurial Decision-making in Tourism</i>									
ED1	Ideas are not a problem, resources are.	4.39	.550	.030	-.291	4.37	4.41	4.39	4.39
ED2	Tourism/hospitality ventures require inter-firm cooperation.	4.10	.838	.323	-.808	4.12	4.09	4.16	4.07
ED3	New ideas come from changes in the tourism business environment.	3.84	1.054	-.544	-.668	3.87	3.82	3.88	3.81
ED4	Weak ties are often a source of business ideas.	3.66	1.120	-1.061	-.402	3.65	3.67	3.70	3.64
ED5	Ideas are not dependent on knowledge of tourism/hospitality market or technology.	3.89	.989	-.592	-.598	3.90	3.89	3.93	3.87
ED6	Better to use current resources than keep seeking new opportunities.	3.51	1.155	-1.324	-.192	3.47	3.55	3.54	3.50
ED7	New tourism/hospitality business is created by demand.	4.15	.844	.810	-1.046	4.05	4.22	4.12	4.17

Table 4: Factor Analysis

Statements	Loadings	A	AVE	CR
<i>Trust</i>		.790	.624	.867
T1	Eliminated due to low commonality (<.4)			
T2	.627			
T3	.928			
T4	.864			
T5	.705			
<i>Enterprising Negotiation Power</i>		.877	.678	.913
NP1	.818			
NP2	.923			
NP3	.696			
NP4	.819			
NP5	.845			
<i>Tourism Decision-making Considerations</i>		.923	.608	.937
DC1	.903			
DC2	.857			
DC3	.775			
DC4	.659			
DC5	.714			
DC6	.837			
DC7	.823			
DC8	.834			
DC9	.766			
DC10	.572			
<i>Crisis Effects</i>		.896	.703	.920
CE1	.532			
CE2	.947			
CE3	.935			
CE4	.858			
CE5	.852			
<i>Entrepreneurial Decision-making in Tourism</i>		.876	.619	.906
ED1	.613			
ED2	.852			
ED3	.870			
ED4	.841			
ED5	.725			
ED6	.789			
ED7	Eliminated due to low commonality (<.4)			

Table 5: Complex solutions for entrepreneurial decision-making

Complex Solution	Raw Coverage	Unique Coverage	Consistency
Model: $f_{ed}=f(f_{om},f_{ct},f_t,f_{np},f_{dc},f_{ce})$			
$f_{om}*\sim f_{ct}*f_t*\sim f_{np}*\sim f_{dc}*f_{ce}$	0.41487	0.15914	0.86722
$f_{om}*f_{ct}*\sim f_t*f_{np}*f_{dc}*\sim f_{ce}$	0.37409	0.13231	0.84958
$\sim f_{om}*f_{ct}*\sim f_t*f_{np}*\sim f_{dc}*\sim f_{ce}$	0.40380	0.11896	0.80481
<i>Solution Coverage: 0.40293</i>		<i>Solution Consistency: 0.83927</i>	

f_{ce}: Crisis effectsf_{om}: Operational modef_{ct}: Company typef_{np}: Enterprising negotiation powerf_t: Trustf_{dc}: Tourism decision-making considerationsf_{ed}: Entrepreneurial decision-making in tourism