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## **Risk-induced Competitive Productivity (CP) in Times of Recession: a Chaordic Tourism Decision-making Perspective**

**Purpose:** The study explores the interface of Competitive Productivity (CP) levels in times of turbulence.

**Methodology:** Drawing from a sample of 507 Athenian holidaymakers, the study employs a fuzzy-set Qualitative Comparative Analysis (fsQCA) to examine the chaordic systems amongst perceived risks (social; destination; price; quality) in tourism purchasing intentions. It considers three grouping variables (age; monthly income; trip [domestic; overseas]). It further evaluates the effect sizes of those risks upon purchasing intentions by complementary employing Necessary Condition Analysis (NCA).

**Findings:** fsQCA revealed three sufficient configurations: (i) price-quality nexus (micro) (ii) generated experience (meso) and (iii) perceived destination image (macro). NCA showcased that the effect size of the examined perceived risks is relatively low, whilst destination risks have the highest impact.

**Implications:** Only a few studies employ fsQCA and NCA in the field of tourism and hospitality studies thus, their full potential and implications of exploring the interface of tourism decision-making components with Competitive Productivity (CP) levels is still unexplored.

**Originality:** This is the first study examining the nonlinearity of risk-induced decision-making triggers of holidaymakers affected by recession in line with the principles of Competitive Productivity (CP). Its theoretical contribution lays in the exploration of the interface of Competitive Productivity (CP) and its three levels of application (micro[tourist], meso [firm/business ], macro [destination]) in times of

turbulence. Managerially, it strengthens the assumption that Competitive Productivity (CP) and customer loyalty are strongly associated even in times of turbulence when destinations and firms should make a strong point to maintain their competitive edge. Methodologically, the study highlights the value of fsQCA for identifying multiple pathways, a relatively new method in tourism. Furthermore, it introduces NCA, a new complementary method in tourism research.

**Keywords:** fuzzy-set Qualitative Comparative Analysis; Necessary Condition Analysis; Competitive Productivity (CP); destination management; economic crisis; tourist decision-making.

## **Introduction**

The advancement of technology and the expansion of market forces bring changes in the tourism and hospitality industry dynamics. Increasing productivity within a competitive environment means ensuring growth, innovation and entrepreneurship to rise both to the customer expectations and the business viability standards (OECD, 2018). The concept of Competitive Productivity (CP) introduced by Baumann and Pintado (2013) offers an operational interface for the integration of the two key concepts under the realm of the need for a behavioral and attitudinal paradigm change. The proposed direction aims to improve productivity at macro, meso or micro level both against the benchmarked competitors but also against previous performance, hence nurturing the way for increased brand value and competition through the continuous improvement of productivity performances (Baumann et al., 2019). In an era where tourism and hospitality industry are challenged for further adaptation and innovation of their offered products and services (OECD, 2020), Competitive Productivity (CP) offers the possibility to simultaneously consider external and internal growth drivers in order to maintain customer loyalty satisfaction and outperform competition based on merit and ethos even in times of societal turbulence (Baumann et al., 2017; Redding, 2020).

Tourism and hospitality industry have very strong interlinkages between the various scales of performance: national or destination (macro); business or operator (meso) and tourist (micro) (Jamal & Lee, 2003). A strong destination brand is often enough of a pull factor to motivate individual tourists to purchase a service and depending on their level of satisfaction to build brand loyalty or commitment to re-evaluate their decision-making rationale (Im et al., 2012). Similarly, the competitiveness of tourism

businesses and operators depends on one end on the regulations and business environment of the host destination (Yeon et al., 2020), yet to a greater extent on the perceptions and interpretation of the offered experience by individual customers (Sanchez-Casado et al, 2019).

This amalgamation of the levels of analysis is pivotal in the study of tourism and hospitality research to allow a complete and systemic assessment of the interlinkages of competitiveness and productivity throughout the whole lifecycle of the industry. The promotion and adoption of lifecycle approaches in industry have been recorded for many decades now (Ahn, 2002; Berkhout & Howes, 1997; Filson, 2002). Rooted on organizational theory, the systemic lifecycle approaches have been employed by businesses to optimize performance and productivity along their supply chain both instrumentally and tactically, hence improve their competitive market edge (Cucculelli & Peruzzi, 2020). Tourism business optimization might consider both product-oriented and process-oriented interventions. Yet, in the new era of Industry 4.0 and Society 5.0. and in light of the current global trends and complexity, business focus should target the outcome of their interface manifested through product quality and customer satisfaction (Fukuda, 2020).

Yet, research is often fragmented to specific levels and overlooks the running patterns and chain cause-effects (Tung & Stahl, 2018). In advancing further the application of the Competitive Productivity (CP) concept in the tourism and hospitality industry, Baumann et al. (2019) suggest the need for a further exploration and empirical establishment of the Competitive Productivity (CP) interplay among the different levels of analysis: macro, meso, and individual (micro). This exploration is bound to a

series of linear and non-linear attribute relationships that dictate the nature and mechanisms of Competitive Productivity (CP) manifestation, which is often triggered by the decision-making process of the single individual tourist (Baumann & Harvey, 2018).

Tourist purchasing decision making entails high perceived risks due to the special characteristics (e.g.: high costs; complexity) of the related products and services (Curras-Perez et al, 2017; Sun, 2014). Although those types of risks (e.g.: financial; social; quality/performance) can also be met in other sectors (Kim et al., 2009), the high levels of tourism complexity substantially increase risk impacts upon consumers' purchasing intentions (Pappas, 2017a). Hence, it is important to evaluate the complexity of the perceived risks in tourism purchasing, in relation to the implications it entails both for the Competitive Productivity (CP) of the individual tourist but also for the provider (firm) and the destination at stake (Redding, 2020).

The current study aims to explore the concept of Competitive Productivity (CP) in times turbulence through the examination of the underlying complexity of holidaymakers' purchasing intentions and perception of purchasing risks. The study was held in Athens, Greece, a country most affected by this decade's economic crisis. Previous research indicates that turmoil periods operate as a catalyst for the exponential increase on the effect of perceived risks in purchasing intentions (Baumann et al., 2017; Pappas, 2018). The theoretical contribution of the paper is twofold. On one hand, it offers a further understanding of the tourist risk-induced decision-making process subject, among others, to the complexity impact of social, destination, price, and perceptions of quality. Most importantly though, it aims to

contribute towards the advancement of the understanding on the interlinkages and interplay between the three levels of Competitive Productivity (CP) analysis, macro (destination) meso (firm/business) and micro (individual) tourist and the systemic implications of their interchange for the competitiveness, productivity and viability of tourism businesses in times of increased uncertainty. In terms of methodological contribution, the paper focuses on the implementation of fuzzy-set Qualitative Comparative Analysis (fsQCA), a method only recently introduced in travel and tourism to capture in detail the non-linearity of the risk-induced decision-making process and its implication. In addition, the paper introduces Necessary Condition Analysis (NCA) a complementary method which measures the size effects of the examined simple conditions, and its application is new in the tourism and hospitality domain.

### **Competitive Productivity (CP)**

The concept of Competitive Productivity (CP) has been first introduced by Baumann and Pintado (2013, p.10) to capture “*an attitude and behaviour [paradigm shift] directed at beating the competition*”. Competitive Productivity (CP) is conceptualised at: macro (nation), meso (industry context) and micro (individual) through a number of drivers and measurement constructs developed to operationalise “outperformance” amongst both competition (external) but also past performances (internal) through pragmatism (Baumann et al., 2019). Each of the three levels accounts for a number of externally and internally moderating effects, formalised through relative values and moderated behaviours (Baumann et al., 2018), along the six components of Competitive Productivity (CP): Benchmarking; Culture; Education/Development; Environment/Infrastructure; Performance (outcomes); and Values (Baumann et al.,

2017). Benchmarking in specific, drives Competitive Productivity (CP) through the exploration of viable objectives and the aspiration of continuous improvements along sales, profitability, product/service/experience quality and brand equity (Baumann & Pintado, 2013).

According to Baumann and Hamin (2011) national culture nurtures the mentality and ethos of performance and entitlement which drives the competitiveness and productivity of firms at international level. This is further instilled within national educational and development systems that drive performance aspirations at the entrepreneurial world, along corporate mission and values and healthy competition (Baumann & Winzar, 2016; Chen & Lin, 2020). An overall mentality of progress and improvement at firm level promotes investment and cooperation that is further manifested in the upgrading of the overall business environment and the infrastructure at national level (Baumann et al., 2016; Fjellstrom & Frick, 2020). As a result of nurturing the underlying supporting systems and resources, Competitive Productivity (CP) is further contributing to the advancement of the actual product and service outcomes through the continuous reiteration of their quality, service-delivery and customer experience (Baumann et al, 2016; Baumann & Hamin, 2011). Competitive Productivity (CP) thus, encompasses the intension of continuously re-centring priorities around high values and performances, reflected through the commitment to advance the competitive advantage along the brand value and customer loyalty (Baumann & Pintado, 2013; Chen & Lin, 2020; Gupta et al., 2020).

Building on previous works of Porter (1990) on competitiveness, National Competitive Productivity (NCP) is driven by macro-level attributes such as



geographical location, political stability, nation's institutions and economic policy, as well the overall national business ethos and culture (Baumann & Pintado, 2013; Baumann et al, 2019; Timming, 2020). Such attributes moderate external parameters such as taxation rates or innovation and entrepreneurship support that are essential for the regulation of the tourism and hospitality industry at destination level depending on the country specific circumstances (Baumann et al, 2020; Fjellstrom & Fick, 2020). On the other micro end of customer/tourist level, Individual Competitive Productivity (ICP) builds on the psychographic, cultural, educational and behavioural profile of customers to identify learning styles, intrinsic and extrinsic motivation patterns and personality traits that drive their individual performance and engagement with targets (Baumann et al., 2019). The process of decision-making as well as the interpretation and development the argumentation narrative around it is bound to elements like life-experience, education, personality, family nurture and even language that co-define Individual Competitive Productivity (ICP) (Hoadley, 2020; Holland et al., 1980; Larson et al., 2002).

Finally, the meso-firm level captures both the productivity and competitiveness challenges of tourism and hospitality industry, which is deemed particularly challenging during turbulent times and environments (Chen, 2011). According to Baumann et al. (2017), Competitive Productivity (CP) at meso level builds, on one hand, on the customers' appreciation of firm's performance along its key identified competitive attributes, while on the other, on the price competitiveness of products offered by direct competitors. The key identified attributes conceptualising Firm Competitive Productivity (FCP) at this level are: Talent Management, Resource Management, Corporate Culture, and Brand Management (Baumann et al., 2019).

Even if talent and resource management are only relevant to clients/tourists through the provision of innovative and quality products, the attributes of corporate culture and particularly brand management drive the formulation of customer loyalty, brand trust and more importantly the perception of a firm's image that is associated with social capital and responsibility (Baumann et al., 2020; Baumann et al., 2021). Brand competitiveness drives customer expectations and the firms' responsibility to deliver to the expected standards within intense cost and resources pressures (Baumann et al., 2019; Timming, 2020; Winzar et al., 2018). Within the current business environment, such values ensure a strong brand positioning in the competitive market and a sound competitiveness edge from the customers' perspective (Baumann et al., 2017; Gupta et al., 2020).

Customer satisfaction and loyalty are paramount for a firm's performance, yet their exact relationship is not always clear (Baumann et al., 2017). The tourism and hospitality sector have long experienced the impacts of positive or negative experiences in customers' behavioural predispositions (Heung & Lam, 2003; Lin et al., 2020). Yet, Baumann et al., (2012) identified that the relationship between the two concepts is rather non-linear, suggesting that customers' satisfaction after a poor experience is not directly converted into loyalty nor clearly predicted behavioural intentions. In a study performed for the banking sector on Greece during the recession period, Baumann et al. (2017) identified no significant associations between Competitive Productivity (CP) and risk or customer perceptions of stability.

Interestingly, service quality was highly associated with perceptions of regulation, with the last highly associated with future intentions hence, with behavioural loyalty.

In fact, it was more the perception of regulations that seemed to mediate customer loyalty to the service provider and dictate perceptions of quality, competitiveness of value, experience, and risk (Baumann et al., 2017). Such studies strengthen the assumption that Competitive Productivity (CP) and customer loyalty are strongly associated even in times of turbulence when destinations and firms need to make a strong point to maintain their competitive edge and market share.

### **Chaordic tourism dimensions**

The theory of chaos proposes that even small differences in behavioural patterns can trigger significant diverging reactions making impossible to predict long-term dynamic systems patterns (Kellert, 1993). However, the theory of complexity (rooted in the theory of chaos) concerns systems with multiple interacting agents that, even if hard to predict, allow improvement since they entail some sort of structure (Zahra & Ryan, 2007). Nevertheless, as Fitzerland and Eijnatten, (2002) suggest, the higher the complexity, the less straightforward the systemic behavioural patterns, whilst the ‘chaordic system’ roots in the strong interrelationship between chaos and complexity. The technical term ‘chaord’ is used as an amalgamation of the words chaos and order (Van Eijnatten et al., 2007). A chaordic system suggests a complex and dynamic set of connections between elements that form a unified whole, whose behaviour is at the same time unpredictable (chaos), but also entails patterns (order) (Olmedo, 2011).

Several recent studies suggest that the dominant reductionist (linear) examination of behavioural patterns in the service sector cannot fully encapsulate the existing complex aspects, creating the necessity for employing asymmetric (non-linear) approaches (Ordanini et al., 2014; Papatheodorou & Pappas, 2017; Pappas, 2018;

Skarmeas et al, 2014). In tourism and hospitality, companies and destinations employ numerous practices in order to cope in with the industry's complexity (Eugenio-Martin & Campos-Soria, 2014; Falk, 2013; Wang & Ritchie, 2012). Especially in periods of turmoil (in this case recession) business complexity aspects dramatically increase (Coskun & Ozceylan, 2011), thus it is necessary to examine the complexity of the formulated chaordic system (Papatheodorou & Pappas, 2017). As Levy (1994, p.176) suggests "long term forecasting is almost impossible for chaotic systems, and dramatic change can occur unexpectedly; as a result, flexibility and adaptiveness are essential for organisations to survive".

## **Methods**

### *Participants*

The research was held at the International Airport of Athens, Greece (Eleytherios Venizelos) from July till August 2019 to adult permanent Athenian holidaymakers (they had to reside in the city at least the last three years). For the collection of primary data, self-administered structured questionnaires were used as the most appropriate method, since the respondents answer at their convenience, there is no bias injection from the interviewer, and there is no need for interview appointments. Missing data were handled through list-wise deletion (the entire record is excluded from the analysis), since this is considered as the least problematic method of handling the data in reference (Allison, 2001).

### *Sample*

The study of Akis et al. (1996) was adopted in order to determine the sampling size. More specifically, since the population proportions were unknown, a 50/50

conservative response format was selected (50 per cent of the respondents express negative perceptions, and 50 per cent express positive ones). Moreover, 5 per cent sampling error and 95 per cent level of confidence were selected. The t-table determines the cumulative probability (Z) in 1.96 (Sekaran & Bougie, 2013). Following Akis et al. (1996), the appropriate sample size is:

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

In total, 800 holidaymakers were asked to participate (400 leaving for abroad and 400 for domestic destinations). Finally, 507 usable questionnaires have been returned (abroad: 211; domestic: 296). The overall response rate of the study is 63,4 per cent (abroad: 52,8 per cent; domestic: 74 per cent) and the statistical error is 4,3 (abroad: 6,7 percent; domestic: 5,7 per cent).

### *Measures*

The questionnaire consists of 34 Likert scale (1: Strongly disagree / 5: Strongly agree) statements. The appropriateness of this selection rationale is supported by several previous studies such as Kyle et al. (2003), and Gross and Brown (2008). All the statements included in the questionnaire have been adopted from previous studies (Social risks: Sun [2014]; Destination risks: Monterrubio [2017]; Price risks: Pappas [2017b] and Shapiro et al. [2019]; Quality risks: Sun [2014]; Purchasing intention: Pappas [2016a] and Wu et al. [2015]). The questionnaire also included two socio-demographic questions (age, monthly income). In terms of the determination of age groups, the study has taken under consideration the previous researches of Wang and Cao (2015), and Pappas (2016b). For 2018, the estimated monthly income in Greece

was 1060.45 € (Trade Economics, 2019), and the study has rounded it in 1000 €. The questionnaire has also included one stratification question concerning the selected destination (abroad/domestic).

For the examination of configurations fsQCA was used. This theoretical method is considered as the most appropriate in order to examine complexity aspects, especially dealing with the respondents' perspectives (indicatively, please read Olya and Altinay [2016], and Pappas and Glyptou [2021]). It evaluates the relationships that are likely to impact the outcome of interest (in our case the holidaymakers' purchasing intentions) and any combinations of binary sets generated from its predictors (Longest & Vaisey, 2008). It is considered as a mixed-method technique, since it combines quantitative empirical testing (Longest & Vaisey, 2008) and qualitative inductive reasoning through the use of case analysis (Ragin, 2000). QCA handles logical complexity since it considers that different combinations of characteristics can produce different outcomes when a combination exists from other conditions and events (Kent & Argouslidis, 2005). The study also estimates negated sets (presence or absence of a given condition [Woodside & Zhang, 2013]). The membership calculation is held by taking one minus the membership score of the evaluated case under in the original fuzzy set (Skarmeas et al., 2014).

## **Results**

Table 1 presents the correlation results by using a 34-statement aggregation (i.e. grouping) process. Skarmeas et al. (2014) indicate that the existence of a general asymmetry is highlighted when all the absolute values in a correlation matrix are lower than .6. As it is presented in Table 1, all values are lower than the maximum

acceptable value ( $<.6$ ). Such result suggests that the generated causal conditions that can be produced by alternative combinations are likely to lead to the same outcome (Woodside, 2013). Therefore, the findings presented in the correlation matrix (Table 1) showcase that a general asymmetry exists, meaning that the research can further progress to a non-parametric analysis.

Please insert **Table 1**

The socio-demographics of the study are presented in Table 2. About 2/5 of the respondents belong to the younger age group (between 18 and 35 years old). Another third of the respondents belong to the age group between 36 and 50 years old (35.3 percent), and nearly quarter (24.1 percent) of the sample consists of people over 50 years old. As this division showcased, the research includes a fair distribution of respondents per age group, meaning that no group is exceptionally huge or small. Furthermore, most of the examined population (54 percent) was earning less than 1000 € per month. For once more, there is a relatively equal division of respondents towards the two examined income groups. The descriptive statistics of the study, along with the statements used are presented in Table 3.

Please insert **Table 2**

Please insert **Table 3**

For the moment that all the examined construct items have been adopted from previous studies, the examination of loadings was made through Confirmatory Factor

Analysis (CFA). Table 4 presents the loadings of the items per examined construct. Indicating that most of them had sufficient loadings ( $>.4$ ). The validity and reliability was measured through Cronbach's Alpha (A), Average Variance Explained (AVE) and Composite Reliability (CR). More specifically, the overall Cronbach A was good (.858), whilst per construct it varied from .894 to .943. In all constructs, AVE was higher than the minimum acceptable (.5), and in all cases CR was higher than AVE, meaning that CR results are also acceptable for further analysis.

Please insert **Table 4**

#### *Sufficient complex configurations*

As it is highlighted in Table 5, fsQCA has generated three solutions. The first sufficient complex configuration ( $\sim f_a * \sim f_i, * \sim f_{sr}, * \sim f_{dr} * f_{pr} * f_{qr}$ ) indicates that the inclusion of one of the socio-demographics (income) with high outcomes of price and quality risks is able to influence the decision-making element of purchasing intention. This result appears to have the highest consistency of all three generated solutions (.849). The second solution ( $\sim f_a * \sim f_i, * f_{sr}, * f_{dr} * \sim f_{pr} * f_{qr}$ ) provides evidence that high social, destination, and quality risks affect the purchasing intentions of holidaymakers. This complex configuration does not include any of the examined socio-demographics (age; income and it has the highest coverage of all generated solutions (.452). The third sufficient configuration ( $f_a * \sim f_i, * \sim f_{sr}, * f_{dr} * f_{pr} * \sim f_{qr}$ ) includes the examined socio-demographic of age with high destination and price risks. As the findings suggest, this combination can sufficiently influence holidaymakers' purchasing decisions. Although the solution in reference has



the lowest consistency (.808) and coverage (.405), it is very well capable influencing the decision-making of tourists.

Please insert **Table 5**

### *Size effects*

The size effect (d) of the conditions under examination has been evaluated by using a complementary analysis. More specifically, the research has employed NCA, and the findings are visually illustrated in Figure 1. As presented in Table 6, *ce\_fdh* and *cr\_fdh* concern the middle parametric group of the ceiling zone. The display of the ceiling zone provides a specification of the X and Y minimum and maximum values (Dul, 2020). Usually, *cr\_fdh* generates a lower ceiling zone than *ce\_fdh* (Dul, 2020). The findings indicate that almost all the risk conditions under evaluation have a low size effect (<.1) (social; destination; quality). On the contrary, price risks appear to have no size effect. Combined with the fsQCA results, the only solution that includes high scores in price risks is the first one ( $\sim f_a * f_i, * \sim f_{sr}, * \sim f_{dr} * f_{pr} * f_{qr}$ ), meaning that this complex configuration should be excluded from further analysis.

Please insert **Table 6**

Please insert **Figure 1**

## **Discussion**

Before progressing to any discussion it is crucial to note that a potential comparison of fsQCA findings with other methodologies should be carefully made, since the

complex causality (employing alternative assumptions) is based on different objectives, whilst the established relations concern cases (not variables), and their identification focuses on the provision of adequate and necessary conditions of the examined outcome (Ordanini et al., 2014).

The first solution focuses on price and quality aspects, but after NCA findings it should be excluded from further analysis and discussion. The second sufficient complex configuration is centered on the holiday experience. The experience generated from travel, tourism and the destination appears to be a very significant factor for the formulation and development of the purchasing intentions of tourists (Pappas, 2019). The findings suggest that social, destination, and quality risks have a considerable effect upon the creation of the overall holiday experience. However, the socio-demographics of age and income do not seem to impact upon the experience. This further highlights the importance of findings in terms of purchasing decision-making, since its dependency solely relies on the examined constructs. Following Baumann et al. (2019), on this occasion the socio-demographics of the respondents do not seem to affect Individual Competitive Productivity (ICP), whilst the associated risks (social; destination; quality) operate as extrinsic motivation patterns and drive their individual performance and decision-making. These aspects raise the concepts of customer satisfaction and loyalty in association to Competitive Productivity (CP), since the lower the perceived risks the higher the overall experience and the formulated loyalty and satisfaction levels. More specifically, concerning Firm Competitive Productivity (FCP) the findings confirm previous findings from Baumann et al. (2019) that the aspects of corporate culture and brand management

seem to have a pivotal importance of tourist decision-making even in times of turbulence.

The third solution deals with the perceived destination image. This complex configuration includes destination and price risks, illustrating the association of those perceived risks with the image of the destination. It also includes the socio-demographic characteristic of age. The latter is also highlighted as an important aspect for the formulation of destination perceptions, and ultimately its image. As Lepp et al., (2011) indicate, the perceived risks are increasingly becoming an integral part for destination image formulation (National Competitive Productivity [NCP]) and ultimately brand strength and positioning. In a corporate level, the culture and brand management in particular, formulate on one end the loyalty of customers (in our case the holidaymakers) and especially the perceived firm (and destination) image (Lins et al., 2017) but also the performance and loyalty of the workforce (Baumann et al., 2016). Hence, the findings suggest that an effective Firm Competitive Productivity (FCP) can increase the appreciation of customers upon firm/destination performance leading both to a strong brand image of the latter and associated pride on identity for the workforce (Baumann, et al., 2020).

## **Conclusion**

The study examined the purchasing intentions of the holidaymakers, by investigating the complexity effect from a series of risks (social; destination; price; quality). The use of fsQCA has revealed three different pathways, and the complementary analysis through the use of NCA has excluded one of the three generated complex solutions.

As a result, the study has confirmed two different pathways: (i) the generated

experience from holidays, and (ii) the perceived destination image, showcasing the different effects of risks upon tourist decision-making. It further explored interconnections with previous research on Individual (ICP), Firm (FCP) and National (NCP) Competitive Productivity, aiming to extend the relevant theoretical discussion and to highlight several managerial implications.

Research contribution should be thus considered in terms of providing evidence and useful insights from a systemic Competitive Productivity (CP) lifecycle perspective.

### *Theoretical Implications*

The aim of the current research was to explore the interface and dynamics between the three levels of Competitive Productivity (CP) in destinations in turbulence. Other than the level-specific research presented earlier, this paper is developed in response to Baumann et al. (2019) suggestion for a further exploration and empirical establishment of the Competitive Productivity (CP) interplay among the different levels of analysis: macro, meso, and individual (micro). In acknowledging the trigger of Competitive Productivity (CP) manifestation mechanisms in the decision-making process of the single individual tourist, all travel decision associated risks (social; destination; quality) operate as extrinsic motivation patterns and drive their individual performance and hence Individual Competitive Productivity (ICP). To mitigate perceived risks particularly in times of turbulence, customer experience, satisfaction and loyalty are strongly influenced by Firm Competitive Productivity (FCP) related attributes such as corporate culture and brand management related to business and workforce ethic. The third configuration then associates destination and price risks to the image of the destination (National Competitive Productivity [NCP]) and ultimately destination image strength and positioning. Hence, the research confirmed

the spill-over effect proposed by previous research (Baumann, 2021) and highlights the importance of applying systemic approaches in exploring the extensive implications and applications of the Competitive Productivity (CP) concept in the tourism sector.

Holidaymakers appeared not to be much concerned of the implications of recession-induced price elasticity on the quality of the service and product on offer. Instead what has driven the decision-making process was the perception and expectation of the generated experience, which overcame their perceived associated risk. The above highlights again the dynamics between the micro (Individual [ICP]) and meso (Firm [FCP]) levels of Competitive Productivity, suggesting that the expectation of a quality experience may overcome the personal purchasing concerns and fears. Still, perceptions of quality experience within the level of Individual Competitive Productivity (ICP) should be further explored along the psychographics and behavioral background of potential clients, as this study has demonstrated clear implications for customer satisfaction and business and product loyalty. At macro level, the third solution revealed destination image as key driver for National Competitive Productivity (NCP). In the interface between Firm (FCP) and National (NCP) Competitive Productivity, it becomes apparent that a business' Competitive Productivity (CP) and associated perception of service quality and competitive edge, may drive the overall image of the host destination even at times of turbulence, which can evoke further research avenues along the Competitive Productivity (CP) of the tourism industry overall.

### *Managerial Implications*

The implementation of asymmetric analysis (fsQCA) and the complementary elaboration through NCA showcased that tourism and hospitality firms and destinations can better comprehend the formulation of their customers' perspectives, also clearly identify different decision-making segments (experience; image). This can lead them to a better orientation of their Firm Competitive Productivity (FCP), especially when dealing with aspects like corporate culture, and brand management. An optimised decision-making understanding is likely to finally lead to a better market segmentation and targeting the desired holidaymakers. As the findings showcase, two different pathways (experience; destination image) can ultimately lead to the same outcome. In this case companies and destinations are able to select the sufficient configuration that is more compatible with the characteristics and strategies of the firm/destination and then build around it the appropriate Firm Competitive Productivity (FCP). Under this perspective, the loyalty of customers is likely to increase, the brand image of firms and destinations will significantly improve, and the overall customer satisfaction will provide the grounds for further development.

Another perspective concerns the fact that such analysis provides a better examination and understanding of the special conditions in market analysis (in this case the Greek economic crisis) and the reformulation of the travel, tourism and hospitality market. As the results suggest, although recession was in the epicenter of research, NCA has excluded price-quality nexus as one of the sufficient configurations for purchasing intentions. This has further highlighted the importance of the generated experience and destination image. Both continue to have a strong impact upon the decision-

making of the Greek holidaymakers. Thus, it can be assumed that the holidaymakers' Individual Competitive Productivity (ICP) is mainly (but not only) structured upon their behavioural profile and motivation patterns. Therefore, this analysis actually provides a useful basis both for firms and destinations.

The delineation of this three stage Competitive Productivity (CP) chain may assist tourism managers to sufficiently comprehend customers' micro level behavioral patterns (Individual Competitive Productivity [ICP]) thus appropriately adapt their meso (Firm Competitive Productivity [FCP])) level through the effective differentiation of their products and services when needed, and advocate for policy and planning interventions at destination level (National Competitive Productivity [NCP]) that ultimately provide an enhanced tourist experience adding value to the destination brand image through the continuous improvements of systemic performances.

#### *Study Limitations and Future Research*

Despite the contribution of the study, a number of limitations should be pinpointed. First, up till now, the use of fsQCA is very limited, since it has only recently started being applied in the tourism and hospitality domain. As a result, in order to unfold its full potential, further use and examination of fsQCA is necessary. This is equally important concerning the application of NCA, since (to the best of the authors' knowledge) its application in tourism is new. The second limitation derives from the examination of holidaymakers battered by the Greek economic crisis, a deep recession that its continuation is more than certain during the nearby future due to the socio-economic effects of Coronavirus. The repetition of this study in some other region and

destination that recession is likely to have a different (more or less vivid) effect, may generate different findings. Hence, any generalization of the findings should be made with caution. Third, one more aspect that needs to be taken under consideration is the potential of a comparative study between the perspectives of the holidaymakers and the perceptions of stakeholders in the tourism and hospitality industry. This is likely to provide a more systemic approach, concerning the formulation and development of purchasing intentions, also highlighting interesting insights on the process that the stakeholders evaluate the framework of the holidaymakers' decision-making. Finally, the combination of fsQCA with NCA, can generate a pathway for further combinations of methodological tools and modes of analysis (i.e.: Conjoint Analysis; Social Network Analysis [SNA]). Such analysis formats can provide new insights for the complex decision-making and provide sufficient evidence for placing non-linear at the core of tourism and hospitality research concerning the examination of such chaotic issues. The complexity in tourism decision-making also indicates that in terms of Competitive Productivity (CP), asymmetric (non-linear) analysis is a fruitful pathway in order to examine the aspects in reference. Research findings provided insights primary on the interface between Individual (ICP) and Firm (FCP) Competitive Productivity. However, a further integrative and systemic exploration of the two with National Competitive Productivity (NCP) is necessary in order to encapsulate the full potential of Competitive Productivity (CP) in travel, tourism and hospitality domain.



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Table 1: Correlation matrix

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1 Social Risks	1				
2 Destination Risks	.125	1			
3 Price Risks	.079	.040	1		
4 Quality Risks	.094	.048	.077	1	
5 Purchasing Intention	.050	.033	-.011	.020	1

Table 2: Socio-demographics

	<b>Travel Mode</b>				<b>Total</b>	
	<i>Domestic</i>		<i>Abroad</i>		N	%
	N	%	N	%		
<i>Age</i>						
18-35	125	61.0	80	39.0	205	40.4
36-50	94	52.2	86	47.8	180	35.5
Over 50	77	63.1	45	36.9	122	24.1
<i>Monthly Income (in €)</i>						
0-1000	199	72.6	75	23.4	274	54
Over 1000	97	41.6	136	58.4	233	46
<i>Total</i>	296	58.4	211	41.6	<b>507</b>	<b>100</b>

Table 3: Descriptive statistics

Statements		Overall Means	Age			Monthly Income (€)	
			18-35	36-50	50+	0-1000	1000+
<i>Social Risks</i>							
SR1	It is important that others like the tourist products/services that I buy.	2.88	2.55	3.03	3.22	2.78	3.00
SR2	It is important that others like the tourist brands that I buy.	3.00	2.65	3.19	3.30	2.91	3.10
SR3	Sometimes I buy a tourist product/service because my friends do so.	3.00	2.58	3.26	3.34	2.90	3.12
SR4	Name-brand purchase is a good way to distinguish people from others.	2.75	2.40	2.87	3.17	2.70	2.80
SR5	Purchasing name tourist products/services reduce the risk of damaging my sense of prestige.	2.70	2.34	2.85	3.08	2.64	2.77
SR6	Purchasing name tourist brands reduce the risk of damaging my sense of prestige.	2.89	2.58	3.01	3.21	2.80	2.99
SR7	When purchasing tourist products/services I consider the risk of having to face negative opinions from my friends and co-workers.	2.74	2.42	2.87	3.11	2.64	2.86
SR8	When purchasing tourist products/services I consider the risk to be thought of as being foolish by some people whose opinions I value.	2.60	2.25	2.73	2.99	2.47	2.75
SR9	The risk of buying a specific tourist product/service causes me concern because some friends would not think of good of me.	2.79	2.48	2.92	3.09	2.69	2.90
<i>Destination Risks</i>							
DR1	When selecting a destination I consider the risk of potential social unrests.	3.93	3.80	3.95	4.10	3.84	4.03
DR2	When selecting a destination I consider the risk of potential strikes.	3.77	3.62	3.81	3.96	3.68	3.88
SR3	When selecting a destination I consider the risk of potential civil disobedience.	3.67	3.51	3.72	3.87	3.57	3.79
DR4	When selecting a destination I consider the risk of potential local hostility.	3.72	3.58	3.74	3.94	3.65	3.82
DR5	When selecting a destination I consider the potential risk of the non-fulfilment of public servants' labour requirements.	3.56	3.29	3.62	3.92	3.45	3.69
DR6	When selecting a destination I consider the risk of corruption levels.	4.06	3.88	4.14	4.23	3.95	4.18

DR7	When selecting a destination I consider the risk of inadequate sanitation.	4.26	4.06	4.37	4.44	4.19	4.35
DR8	When selecting a destination I consider the risk of local criminality levels.	4.16	3.99	4.24	4.33	4.08	4.25
<i>Price Risks</i>							
PR1	I think about the risk of not having made a good purchase bearing in mind the price I pay.	3.67	3.55	3.71	3.83	3.48	3.89
PR2	I consider the risk the tourist product/service I purchase not being reasonably priced.	3.50	3.44	3.52	3.59	3.38	3.66
PR3	When the price differentiation in a tourist product/service is very low or very high compared with a product/service with similar features, the potential risk for purchasing it is high.	3.53	3.37	3.61	3.70	3.33	3.77
PR4	The price is the main criterion for my purchasing decision.	3.95	3.84	3.89	4.22	3.93	3.97
PR5	Purchasing a tourist product/service includes a considerable price risk due to the overall amount of money associated.	3.41	3.30	3.54	3.41	3.30	3.54
PR6	The financial risk involved when purchasing tourist products/services is high.	3.67	3.56	3.70	3.81	3.57	3.79
PR7	There is a high risk in tourist products/services not to get my desired value for money.	3.71	3.61	3.75	3.80	3.61	3.82
<i>Quality Risks</i>							
QR1	I am cautious with the overall quality when trying new tourist products/services.	4.07	3.92	3.97	4.48	4.07	4.08
QR2	I am cautious with the overall quality when trying different tourist products/services.	3.96	3.80	3.89	4.33	3.95	3.97
QR3	I trust the quality of a tourist brand I usually buy than purchasing something I am not very sure of.	4.10	4.00	4.04	4.37	4.09	4.12
QR4	I never buy a tourist product/service I do not know about at the risk of making a mistake.	3.94	3.79	3.88	4.28	3.93	3.95
QR5	When buying a tourist product/service I consider the potential risk of not being delivered as promised.	3.89	3.69	3.82	4.31	3.87	3.90

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*Purchasing Intention*

PI1	I am likely to book a specific tourist product/service.	4.02	3.98	4.06	4.03	4.00	4.05
PI2	I am likely to recommend a specific tourist product/service to my friends.	4.14	4.04	4.22	4.19	4.09	4.20
PI3	I am likely to make another booking of a tourist product/service if I am satisfied with a specific one.	4.22	4.19	4.24	4.23	4.19	4.24
PI4	My willingness to buy a tourist product/service from the same sellers is high.	3.93	3.89	3.95	3.95	3.91	3.94
PI5	If satisfied, it is likely that I will purchase a tourist product/service from the same sellers in the near future.	3.82	3.81	3.84	3.80	3.80	3.84

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Table 4: Loadings, Cronbach A, AVE and CR

<b>Statements</b>	<b>Loadings</b>	<b>A</b>	<b>AVE</b>	<b>CR</b>
<b>Social Risks</b>				
SR1	.927	.943	.699	.954
SR2	.863			
SR3	.800			
SR4	.674			
SR5	.774			
SR6	.885			
SR7	.898			
SR8	.823			
SR9	.851			
<b>Destination Risks</b>				
DR1	.912	.906	.626	.930
DR2	.814			
DR3	.751			
DR4	.716			
DR5	.712			
DR6	.869			
DR7	.722			
DR8	.808			
<b>Price Risks</b>				
PR1	.855	.894	.614	.917
PR2	.706			
PR3	.739			
PR4	.665			
PR5	.836			
PR6	.835			
PR7	.828			
<b>Quality Risks</b>				
QR1	.953	.921	.764	.941
QR2	.868			
QR3	.869			
QR4	.839			
QR5	.837			
<b>Purchasing Intention</b>				
PI1	.948	.907	.724	.929
PI2	.829			
PI3	.816			
PI4	.868			
PI5	.785			



Table 5: Sufficient configurations

Complex Solution	Raw Coverage	Unique Coverage	Consistency
Model: $f_{pi}=f(f_a, f_i, f_{sr}, f_{dr}, f_{pr}, f_{qr})$			
<i>Pre-referendum</i>			
$\sim f_a * f_i, * \sim f_{sr}, * \sim f_{dr} * f_{pr} * f_{qr}$	.413	.117	.849
$\sim f_a * \sim f_i, * f_{sr}, * f_{dr} * \sim f_{pr} * f_{qr}$	.452	.141	.822
$f_a * \sim f_i, * f_{sr}, * f_{dr} * \sim f_{pr} * \sim f_{qr}$	.405	.109	.808
Sol. Coverage: .417    Sol. Consistency: .823			

$f_{pi}$ : Purchasing Intention

$f_{sr}$ : Social Risks

$f_{qr}$ : Quality Risks

$f_a$ : Age

$f_{dr}$ : Destination Risks

$f_{pr}$ : Price Risks

$f_i$ : Income

Table 6: Size effects

	<b>ce_fdh</b>	<b>cr_fdh</b>
Social Risks – Purchasing Intention	.019	.009
Destination Risks – Purchasing Intention	.097	.049
Price Risks – Purchasing Intention	.000	.000
Quality Risks – Purchasing Intention	.071	.043

Figure 1: NCA plots

