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Resilience and individual competitive productivity: the role of age in the tourism industry

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This study evaluates the conceptual and metrical correspondence between the construct measurements of the individual Competitive Productivity model and the scale that measures individual resilience in tourism. An individual work resilience scale was adapted to the context of the tourism industry. Scale items were operationalised on an online survey ($n = 425$) with tourism professionals and students. The role of age as an influence variable on individual resilience levels was explored. The results point to correspondences between the scale designed to measure personal resilience and the construct that identifies the ICP components. The findings suggest that companies should prioritise diversity in their recruitment policies, which allows them to capitalise on integrative thinking to become more ambidextrous, and consequently, more resilient.

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Introduction

Flexibility and continuous adaptation are the key elements to survive and thrive in a changing environment and to achieve organisational goals (Hamel and Välikangas, 2003). Organisational resilience favours these aspects, as it focuses on strengthening companies' ability to recognise the need for adapting to changing environmental conditions (Lengnick-Hall and Beck, 2016). Therefore, elements of resilience, such as collective capacity (cooperation among staff members) and sense of mission, positively affect organisational effectiveness (Bohn, 2010). Resilient organisations are, thus, more prepared to finding adequate resources and approach experiences positively (Mallak, 1998).

Previous studies have acknowledged the existence of a positive relationship between organisational resilience and employee resilience (Kuntz et al., 2017; Toubes et al., 2020). However, the influence of employee resilience on business competitiveness has not yet been sufficiently analysed. In this context, it is interesting to know what makes companies more resilient, so that managers can cultivate these characteristics or processes in order to make their organisations more adaptable and competitive. To help filling this gap, the present study investigates how individual resilience relates to Individual Competitive Productivity (ICP). In doing so, the study aims to enable organisations to maximise ICP through their recruitment policies. To this end, a list of items that operationalise the dimensions of personal resilience is proposed, and its links to the Individual Competitive Productivity (ICP) construct are explored. Previous studies provide evidence of a conceptual correspondence between these two concepts. Based on the idea that productivity and competitiveness are intertwined, Baumann and Pintado (2013) initially proposed the concept of competitive productivity (CP), defined as both an attitude and a behaviour directed at outperforming the competition through pragmatism (Baumann et al., 2019). This practical attitude also includes the essential characteristics of resilience, which as shown by Woods (2017), are: flexibility, rapid shifting, and adaptation, and recognising and adapting to unanticipated events.

Achieving organisational resilience, and indeed understanding the factors that contribute to the development of this capacity, requires the identification of factors that foster employee resilience in the workplace (Näswall et al., 2015). In this context, Baumann et al. (2019) proposed a construct comprising six elements that drive ICP: genes, personality, motivation, education, parental nurture, and life experience. Moreover, Mudrack et al. (2012) and Lengnick-Hall and Beck (2016) point to age as one of the variables that influence the strategic agility of organisations in dynamic environments. Considering these contributions, in the present study, the role played by life experience (using and as a proxy) was explored.

To achieve the described goals, data was collected through a survey questionnaire with tourism professionals and students during the COVID-19 crisis in Spain. A crisis context is adequate for the present study, first, due to the very definition of resilience, which refers to the ability to respond to change (Holling, 1973). Moreover, context, situation, location, and time are moderating elements of competitive productivity (Baumann et al., 2018). The data was initially subjected to an exploratory factor analysis. Then, a z-test for two samples was performed to assess how the resilience dimensions varied according to age. Namely, the z-test checked for statistically significant mean differences between three age groups: juniors, mid-career workers, and seniors. The results point to correspondences between the scale designed to measure personal resilience and the construct that identifies the ICP components. Individual resilience indicators were grouped into two dimensions: Openness & Ideals, which includes internal or psychological elements, and Competencies, which

encompasses operational aspects. Finally, the study brings about some managerial implications. Amongst those, the findings suggest that organisations must strengthen employees' resilience abilities, which can be achieved mainly by enhancing their personal competencies. Moreover, the findings suggest that companies should seek to maximise diversity—specifically of age groups—within their recruitment policies, as it favours integrative thinking, and consequently, ambidexterity and resilience.

Theoretical framework

Individual resilience and ICP. Resilience refers to one's ability to respond to change (Holling, 1973). More specifically, it is defined as the transformative process through which individuals not only cope with change, but also learn from it, adapt, and thrive in the new environment (Näswall et al., 2013). Adaptive resilience, in turn, is “the ability of the system to withstand either market or environmental shocks without losing the capacity to allocate resources efficiently” (Perrings, 2006, p. 418). In this context, resilient systems are mainly characterised by their ability to absorb disturbances and evolve (Walker et al., 2004). This ability mainly comes from an endogenous capacity to self-organise. Therefore, they do not need excessive external elements to trigger the adaptation, as it is inherent to this ability (Prayag, 2018). Arguably, individuals' attitudes, behaviours, resilience, and alignment with the characteristics that lead to organisational resilience strengthen a firm's capacity for self-organisation.

Within the context of psychopathologic development, resilience refers to a positive adaptation to adversity (Bonanno, 2004; Luthar, 2006). Masten (1989) defined it as the positive part of an adaptation following extenuating circumstances. Individual resilience has been widely discussed in studies on the field of psychology, which observed this trait on individuals in different periods of life (Rutter, 1990; Ryff et al., 1998). In the area of human resource management, however, individual resilience has received significantly less attention (Stokes et al., 2019). Nevertheless, the current global organisational reality makes it a critical area of study, as the variables influencing companies' competitiveness have become increasingly changeable, uncertain, stressful and market dependent (Allvin et al., 2011).

Individuals are used to living with change and going through several phases as they adapt to a crisis (Fink et al., 1971). In this context, several authors (e.g., Britt et al., 2016; Kuntz et al., 2017) have found that employee resilience is a behavioural capacity that encompasses adaptive, learning, and network-leveraging behaviours, all of which contribute to strengthening an organisation's resilience. Additionally, Amir and Standen (2019) argue that employee's resilience goes beyond the simple capacity to adapt to adversities in the workplace and encompass a general intention to grow as a person when facing both difficulties and opportunities.

Prior research has also shown that an employee's resilience positively relates to individual job performance (Luthans et al., 2005). In this context, Youssef and Luthans (2007) found a potential positive impact of employees' psychological resource capacities on work-related outcomes. The most prominent of these capacities is hope, followed by optimism, and resilience. Accordingly, Lengnick-Hall et al. (2011, p. 250) concluded that developing resilience capacity leads “to timing advantages that allow a firm to capitalise on rapid response opportunities, experience at doing more with less, and an emphasis on using all of a firm's resources fully”. Reinforcing this rationale, Shin et al. (2012) concluded that an organisation's capacity to become more resilient is highly dependent on its ability to capitalise on, and skilfully integrate its core practices and procedures, to which employees' contribution is of utmost importance. These

conclusions corroborate the idea that an organisation's resilience capacity tends to be enhanced by its personnel's resilience traits.

These contributions are also in line with previous literature on organisational competitiveness. Scholars have suggested that, although traditional sources of success—i.e., product and process technology, access to financial resources, or economies of scale—can still provide competitive advantages, the selection and management of a quality workforce has become a determinant factor (Pfeffer, 1994; Greening and Turban, 2000). In this vein, while acknowledging that IT is an important tool, Read (1996) points out that intellectual capital is the fundamental key to the success of modern firms. If competitive success is achieved through people, these people's skills are critical (Pfeffer, 1994). Corroborating these contributions and applying them to the context of organisational resilience, scholars point out that a human resources management approach to organisational resilience often enables organisations in dynamic environments to achieve competitive advantage. This idea is defended, for instance, by Lengnick-Hall et al. (2011), according to whom, "human resource (HR) managers should craft HR principles, policies, and practices to actively attend to their firm's capacity for resilience in order to achieve greater potential advantages from their overall strategic capability" (p. 253). In sum, contributions from general organisational management literature, as well as studies focused on organisational resilience, point to people and their skills as the key factors for fostering organisations' abilities to adapt and prosper in changing and disrupting environments.

Organisational resilience and recruitment. Lewis and Heckman (2006) show that talent management aimed at developing employees' resilience contributes to improving their well-being, and consequently, the organisation's performance. Additionally, Amir and Standen's (2019) conclusions imply that focusing more on personal development than on work skills within the employee development strategy should lead to better results, as resilience also includes a willingness to grow as a person. Resilience, however, must coexist with organisational diversity, and the answer for this apparent paradox requires a combination of sense-making and action. The former is favoured by "bricolage" (Weick, 1993; Mallak, 1998), the ability to improvise and connect disparate elements to solve problems creatively.

Organisations that manage to overcome these challenges and are thus capable of simultaneously pursuing exploration and exploitation, have been shown to obtain superior performance compared to those emphasising one at the expense of the other (Tushman and O'Reilly, 1996; Jansen et al., 2008). In this context, an ambidextrous organisation has the necessary capabilities to compete in mature markets—where cost, efficiency and incremental innovation are critical—and develop new products and services for emerging markets—where experimentation, speed and flexibility are key success factors (Tushman and O'Reilly, 1996). Therefore, they have the innovative capacity to obtain superior performance (Johnson et al., 2017).

However, organisational ambidexterity can be challenging, as the different processes associated with exploitation and exploration raise contradictory pressures: ambidexterity involves being focused and flexible, efficient yet innovative (Smith and Tushman, 2005), and looking forwards and backwards (Gavetti and Levinthal, 2000). Considering this critical role of ambidexterity on a firm's competitiveness in different markets, as well as the challenges involved in achieving it, it is important to explore how organisations can foster this trait. The addressed contributions point to the importance of personnel's characteristics on organisational ambidexterity. In this context, human resource

policies, namely, recruitment procedures, are arguably a critical factor.

Swart et al. (2019) noted that both detailed actions at junior levels and strategic actions at senior levels are important and complementary to enabling ambidexterity. At the junior level, employees with specialist knowledge about their clients use "gap filling" measures to enable ambidexterity. These employees often perform a highly operational role in which a specialist is directly responsible for satisfying specific client requirements within the budget (Swart et al., 2019). In this context, Burgelman and Grove (1996) argued that the closest views to the market can probably be found at an organisation's junior levels. Therefore, senior executives must channel the knowledge of mid-level executives and the strategic dissonance of junior levels into a "searing intellectual debate" until a clearer strategic pattern emerges.

Several previous studies suggested that resilience capacity is favoured by having young employees in executive positions and including them in the company's decision-making process (Hamel and Välikangas, 2003; Stoltz, 2004; Boschma and Groen, 2010). Building on this suggestions, Toubes et al. (2020), concluded that it tends to increase organisational resilience, as senior managers can sometimes have a psychological and sociological inclination to avoid conflict and adopt linear and rational thinking. In this context, whereas experienced professionals who work in a company for a long time are probably more inclined to stick to well-rehearsed routines or reproduce the company's historical pattern of decisions, young employees are more likely to adopt creative and unconventional actions in face of changing conditions (Lengnick-Hall and Beck, 2016). Young people can adhere to more ethical and self-developmental behaviour, rather than adopting a hyper-competitive position (Mudrack et al., 2012). Therefore, as pointed out by authors such as Ashton and Morton (2005) Berger and Berger (2010), by hiring talented young people, developing their talent, and promoting them on the right situations, companies can enhance their capacity to provide more transparent and customer-oriented services, and consequently, achieve competitive advantages. As an example, Honda's "Let's gamble" slogan, from the late 1970s was the result of an innovative business decision that consisted of forming a team of young engineers and designers to develop unconventional ideas about what makes a good car. Along with an extremely broad mission, the slogan provided the product development team a strong sense of its own identity, allowing them to create a revolutionary product: the Honda City (Nonaka and Takeuchi, 2007).

As the addressed contributions illustrate, resilience and ICP, and especially ambidexterity, are beneficial to companies. Both dimensions have a strong influence on the efficient use of resources and play a significant role on the dynamic capabilities that are necessary for innovating and radically improvising in response to emerging requirements. This becomes more evident during times of crisis or breakdown, when a company's traditional categories of knowledge no longer work. Although crises affect all industries and sectors, the literature suggests that the need for resilience is particularly critical for organisations operating in the tourism industry. Therefore, this industry is adopted as the setting of the present research. This greater vulnerability of tourism to crises and breakdowns is addressed in more detail in the next section.

The role of resilience in overcoming crises in the tourism industry. Several aspects suggest that the need for resilience is particularly critical within the tourism industry. First, tourism deals with the dislocation of people through territories, and therefore, is much more sensible to any disturbance in the

macro-environment variables, such as the political context (Ritchie and Crouch, 2003). Second, tourism companies deal with intangible products, promises of experiences, and as so, image (Baloglu and McCleary, 1999; Cardoso et al., 2019; Echtner and Ritchie, 1993), particularly perceived risk and security (Kozak et al., 2007; Fuchs and Reichel, 2011) is critical. Finally, tourism is seen as a superfluous and high investment consumption, therefore, it is amongst the first to be renounced in times of economic crisis. The COVID-19 crisis alone exemplifies all these factors. First, it prevented people from moving throughout countries and regions, affecting first and foremost, tourism. It also generated political tensions and mistrust between countries, hindering this movement even further. The image people had of destinations such as Italy (not to mention China), has been contaminated with a high perception of risk, arguably damaging their competitiveness as a tourism destination even after the crisis. Finally, it diminished the discretionary income of millions of potential tourists, making them less likely to invest in travel even after restrictions were lifted.

There are other specificities of the tourism product that tend to exacerbate the effects of crises even further. For instance, the network of services that integrate destinations' clusters are mainly composed of small (often family-owned and not very well prepared to deal with crises) business. Moreover, just like other services, tourism services are highly perishable, and therefore, business opportunities lost due to crises are not recoverable. When combined with the high seasonality of the tourism activity in many destinations, and with the high fixed costs that business such as a hotel must endure regardless of occupation, this leads to higher challenges for such organisations (Middleton et al., 2009). It is not surprising, then, that tourism was one the most affected industries during the COVID-19 crisis, and that many hotels and other tourism businesses had to close their doors or lay out workers.

Despite this long-recognised increased vulnerability to crisis of the tourism industry, little attention has been paid to how tourism organisations can build their resilience capability. Some authors, however, do provide contributions. Through a survey with hotel managers in Galicia, Spain, a region frequently affected by natural and man-made disasters—forest fires, floods, draughts, and oil spills—Toubes et al. (2020) conclude that two factors are essential for a tourism organisation's ability to capitalise on opportunities and thrive in uncertain situations: planning to change and broadening participation. The implication is that unpredictable periods, the more flexible organisations are the better able they can adapt and transform in response to changes. In a sub-sequent study, Toubes et al. (2021) suggested a greater role of DMOs as promoters of knowledge management for tourism Small and Medium Enterprises' (SMEs), as a way to increase their preparedness via learning mechanisms that overcome mere problem solving.

Building on the addressed contributions, the present investigation aims to verify the assumption that there is a close connection between the concepts of ICP and individual resilience. The tourism industry is adopted as settings, due to its addressed particular vulnerability to uncertain conditions, and consequent more critical need for resilience. In addition, the present study explores the influence of age—employed as an approximation to life experience—as a grouping factor for levels of resilient behaviour. ICP comprises attitudes and behaviours directed at outperforming other competing individuals, as well as one's own past performance, through pragmatism (Baumann et al., 2019), that is, by thinking frugally and being flexible. Being pragmatic requires an employee or executive to adapt quickly to often unforeseen situations and uncertain circumstances in an intelligent way (see Baumann et al., 2019, note 3). The previous

contributions addressed so far suggest that is a valid approach to resilient behaviour.

Methodology

The resilience construct has been developed in studies from several different disciplines. Individual resilience, however, has been addressed mostly by Psychology and Psychiatry studies (e.g., Connor and Davidson, 2003; Smith et al., 2008; Tugade and Fredrickson, 2004). Overall, these constructs connote the maintenance of positive adaptation by individuals despite experiences of significant adversity (Luthar et al., 2000). Regarding individual resilience in the workplace, there still no consensus among researchers on how to measure this construct. Many of the scales that have been developed treat resilience as a personal phenomenon or for different work-related contexts, such as career resilience, general work environments or innovation contexts (Hartmann et al., 2020). In this context, the present work aimed to verify whether age influences the level of individual resilience, namely, whether there are significant differences in the levels of individual resilience items between three age categories. To measure the individual resilience of tourism professionals and students during a crisis context, existing scales were adapted based on attitudes and behaviours that are closely related to the components of competitive productivity at the individual level.

In the initial phase, as proposed by Hinkin (1995), the specific meaning of the construct was conceptualised through a deductive approach. This involved combining and extending definitions from previous research on individual resilience, as well as adapting them to the context of recruiting in the tourism industry. In recent years, important advances have been made towards measuring tourism organisations' resilience. In this context, several studies have proposed models and frameworks resulting from quantitative approaches (e.g., Luthe and Wyss, 2016; Orchiston et al., 2016; Brown et al., 2019). The present study adapts two existing scales to the context of individual resilience in the tourism industry. The first scale was developed by Lee et al. (2013) and measures organisational resilience in general. The second scale, developed by Orchiston et al. (2016), measures resilience in the specific context of tourism organisations.

The quantitative measure of individual resilience in this study was based on the two dimensions of organisational resilience identified by Lee et al. (2013): planned and adaptive resilience. The arguments used in the context of an organisation are applicable to individuals. Adaptive resilience allows an individual to respond dynamically to emergent situations, and planned resilience involves the use of existing, predetermined planning capabilities, such as priority setting, proactive orientation, education, and networking. Table 1 shows the definitions of each of the variables that make up the construct of individual resilience.

Table 2 shows (a) the construct for measuring ICP, as proposed Baumann et al. (2019), and (b) the indicator for measuring individual resilience in the tourism industry. As addressed in the literature review, there is a conceptual relationship between ICP and individual resilience. Accordingly, there are correspondences between the components of these two dimensions. Namely, resilience indicators (leadership, breaking silos, innovation and creativity, unity of purpose, etc.) show a correspondence with the ICP components.

Two important statements of the ICP model related to competitive attitude seem to be excluded from the construct of individual resilience. For this reason, two survey items were included to contrast the competitive attitude towards cooperation in normal conditions and in times of crisis: "In my usual work, I have a competitive versus collaborative attitude" and "In crisis

Table 1 New construct of individual resilience.

Indicator	Definition
Leadership	Individual's ability to control and lead complicated situations.
Situation awareness	Monitoring of what is happening in the industry and the environment and alert to emerging situations to anticipate and act proactively.
Proactive posture	Level of personal commitment and quickness in addressing issues and early warning signs of change in the organisation's internal and external environment.
Leveraging knowledge	The knowledge and training received allows individuals to assume responsibility for other roles in the organisation in the face of a lack of available personnel.
Planning strategies	Individual preparation and updating in relation to the business environment and planning for the unexpected.
Breaking silos	Minimisation of divisive social, cultural and behavioural barriers, which are manifested in raising barriers in communication and work with other colleagues.
Strategic partnerships	Ability to improve the work environment by building relationships and networks with colleagues with whom the individual may need to collaborate in times of crisis.
Decision making	Individual's ability and capacity to make tough decisions quickly.
Innovation and creativity	Individual's innovative capacity and ability to use their knowledge creatively.
Internal resources	Individual capacity and skills to react when a problem occurs in the organisation and to absorb unexpected changes.
Staff engagement	The commitment and engagement of the individual who takes responsibility for working on the organisation's problems until they are resolved.
Unity of purpose	Individual awareness to define priorities in their work that minimise risk and lead them to operate successfully.

Table 2 Correspondences between ICP and individual resilience measurements.

(a) Individual competitive productivity (ICP)		(b) Individual resilience
Component	Statement	Indicator
Benchmarking	My behaviour is directed at beating the competition I benchmark my performance against leaders in order to aspire to the same or higher market position	Leadership
Culture	My work culture focusses on performance and competitiveness	Situation awareness
Education/ Development	I am oriented towards positive customer service to retain customers for repeat business I develop myself through education and training	Proactive posture
Environment	I am knowledgeable and up to date with market developments I am all about creating an ideal (work) environment	Leveraging knowledge
Performance	I am all about upgrading my (work) environment I am faster than others	Planning strategies
Values	My level of innovation is higher than others	Breaking silos
	I earn more than others	Strategic partnerships
	I have stronger educational/academic performance than others	Decision making
	I have an attitude directed at beating the competition	Innovation and creativity
	I have "can do" spirit	Internal resources
	I have positive values that drive excellence	Staff engagement
	I have positive values that minimise risks in life	Unity of purpose

Source: (a) Baumann et al. (2019) (b) Author's own elaboration, adapted from Lee et al. (2013) and Orchiston et al. (2016).

situations, I have a competitive versus collaborative attitude". These items relate to the components of benchmarking and values that specifically address whether the respondent "has a behaviour or attitude directed at beating the competition".

Orchiston et al. (2016) included the item "stress testing plans" in the scale to measure the resilience of tourism organisations, but they found this item did not respond satisfactorily to the factorial model. This indicator, which addresses the willingness of respondents to participate in emergency plans and drills, does not seem to match the ICP components. Nevertheless, this item was included in the questionnaire due to theoretical reasons, as previous studies (i.e. Pearson and Mitroff, 1993; Johnson et al., 2008) show that employees' exposure to drills is one of the main measures for emergency preparedness in organisations.

Study context and data. This investigation has been carried out during the COVID-19 pandemic, one of the greatest health and social crises of modern times. The first case of COVID-19

infection was reported in Wuhan, China, on December 31, 2019 (WHO, 2020). By August 2020, the pandemic had affected 188 countries, the total number of confirmed infections was over 18 million, and close to 700,000 people had died worldwide (Johns Hopkins University, 2020). COVID-19 has produced a global crisis that has affected all sectors of the global economy and society, and the tourism industry was particularly affected.

Naturally, this new and unusual context affected the methodological decisions within this investigation. The adopted data collection instrument was a quantitative online questionnaire. Aiming to measure individual resilience at work, the questionnaire included 13 questions that operationalise adjusted versions of Orchiston et al.'s (2016) indicators of resilience for tourism organisations. Respondents' perceptions of these indicators were measured through a 5-point Likert scale (1 = *strongly disagree*; 5 = *strongly agree*), through which they identified the roles that best reflected their behaviour. As the questionnaire deals with behaviours and attitudes, in order to avoid random responses, the answer "I don't know" was provided as an option for all

questions. The 13 items of individual resilience were followed by two questions that assessed respondents' competitive or collaborative attitudes at work, both during crises and on normal conditions. Each item was operationalised through a 9-point differential scale, using a bipolar descriptor (competitive vs. collaborative). Additionally, the questionnaire included 5 questions on sociodemographic characteristics: sex, age, formal education, profession and country of residence. A pre-test was carried out among 12 respondents to ensure the questionnaire's conceptual validity and detect potential unexpected values.

The study was carried out in Spain, where tourism is one of the pillars of the economy. The industry generated 147,946 million euros (12.3% of the national GDP) in 2018 (National Institute of Statistics, 2019). The research population consisted of tourism professionals and students. To reach a representative sample of this population, an initial database was built by gathering data from current and former tourism students from the University of Vigo (Spain). The database included all students from graduate, master's and PhD programs since 2006, when the tourism course was open. Then, a non-probabilistic snowball sampling method (Malhotra, 2004) was employed. In this context, the survey was sent to every individual included in the database, and they were solicited to disseminate the survey among their classmates and work colleagues. The data collection process took place between May 20 and July 10, 2020. Responses from individuals who did not fit the research population (e.g., did not have any professional or educational relationship with the tourism industry) were discarded, after which, a total of 425 valid responses were obtained.

For the data analysis, two techniques were employed. First, an exploratory factor analysis was carried out to identify the underlying dimensions of the individual resilience construct. Factor analysis requires a sample without missing values. In the present investigation, missing values were dealt with through the listwise deletion method, after which, a total sample of 381 valid observations was obtained. Another condition for performing factor analysis is that the variables are highly correlated. The correlation matrix shows that the linear correlation coefficients between the original variables are not very high—most are between 0.458 and 0.658. The exploration of the matrix of adjusted p values for multiple contrasts (Holm's method) indicates that values are less than 0.01, which means that none of the correlation coefficients appear to be null. The KMO index is 0.754, which indicates that factor analysis is adequate for analysing the sample. To simplify the factors, the Varimax orthogonal rotation was used. The sum of squared loadings (SS loadings) was used to determine the value of a particular factor. In the present study, a factor is considered worth keeping if SS loading > 1 . To identify the factors, the loadings for each variable higher than 0.5 were established. Then, a Z-test was employed to explore significant differences in the levels of individual resilience according to three age categories: juniors (between 17 and 28 years old, consisting of 136 individuals), mid-career workers (between 29 and 39 years old, 181 individuals), and seniors (between 40 and 53 years old, 65 individuals). The maximum age of 53 years old among respondents is explained by the nature of the sample, which consists of tourism professionals and students (not including retired workers).

Results and discussion

Sample characterisation. The sample presents a slightly higher percentage of men (62.6%). Regarding the age range, 29.2% were younger than 25, 41.2% were between 25 and 35 years old, 22.6% were between 36 and 45 years old, and 7% were between 46 and 53 years old. Over half of the sample (54.1%) consisted of tourism

companies' employees. Meanwhile, 9.6% were self-employed, 30% were (exclusively) students, and 3.8% were unemployed. As for the level of education, 46.1% have a bachelor's degree, 24.2% have a master's degree or a Ph.D., 6.4% have secondary education, and 1.9% have only primary education. Regarding nationality, most respondents were Spanish (98.1%).

Factor analysis. Cronbach's α results (0.92) indicate that the 13-item construct has strong internal consistency (Hinkin, 1998). Two underlying factors were identified, both with SS loadings greater than 1 (3.87 and 3.65). The two factors explained 57.8% of the total variance. Factor analysis results are summarised in Table 3.

The "knowledge-leveraging" variable ("In case of need, if the people in charge of carrying out a job are not available, then they can count on me") presents low uniqueness (0.116) and high communality. Therefore, it responds satisfactorily to the factorial model. On the other hand, the "stress-test planning" variable, which evaluates individuals' willingness to participate in emergency plans and drills, presented a high uniqueness (0.734), and is, therefore, not adequately explained by the factorial model.

The first factor, which has been named Openness & Ideals, is related to the items "leveraging knowledge", "breaking silos", "strategic partnerships", "unity of purpose", "staff engagement" and "situation awareness". The Openness & Ideals factor mainly describes the attitude of solidarity and openness to communication within the organisation, as well as collaboration, network building, and priority setting. The second factor, Competencies, is related to the indicators "decision-making", "planning strategies", "leadership", "internal resources" and "proactive posture". The communality of the variable "innovation and creativity" is 0.47, which is below the required minimum. The Competencies factor describes more operational behaviours than those described by Openness & Ideals, that is, skills that can improve an individual's resilience and are enhanced through practice.

Finally, the p value for the factorial model was close to 0, which indicates that the two factors are not sufficient to explain the Individual resilience construct. Therefore, a more complete model is required. This conclusion is consistent with the previous observation that the two variables are not sufficiently explained by the two factors because they have a low communality.

Test for statistical significance. The two sample Z-test results reveal statistically significant differences ($p < 0.05$) between senior and mid-career respondents in all individual resilience items except for "innovation creativity". Statistically significant differences were also observed between juniors and mid-career workers in all individual resilience items except for "innovation creativity", "planning strategies" and "breaking silos". However, between the junior and senior age categories, only one item presented statistically significant difference: "planning strategies" ($p < 0.05$). Figure 1 presents the mean values (on a scale of 1 to 5) obtained on the 12 indicators of resilience by each age group.

For all indicators except "leveraging knowledge", the highest values correspond to the oldest age group (seniors). Within the junior group, the highest value was attributed to the "leveraging knowledge" indicator. The mid-career group, in turn, had the lowest values in all indicators. For each age group, the values of all indicators included in the Openness & Ideals factor are higher than the those of the indicators included in the Competencies factor. This is more evident in the junior group, where the lowest value in the first factor (3.81) is greater than the highest value in the second factor (3.86).

Regarding competitive versus collaborative attitudes at work, a collaborative attitude (closer to 9) are dominant both in normal

Table 3 Mean, standard deviations, and factor analysis results.

Individual resilience	M	SD	Communalities	Factor 1 Openness & ideals	Factor 2 Competences
In case of need, if the people in charge of carrying out a job are not available, then they can count on me	4.09	1.09	0.884	0.928	
I am open to communication and do not put up barriers when working with other colleagues	3.87	1.11	0.605	0.716	
I build relationships and networks with peers with whom I may need to collaborate in times of crisis	3.81	1.10	0.577	0.693	
In my work, I prioritise what is important	3.99	1.04	0.564	0.647	
I put dedication and commitment into problems until they are solved	4.00	0.92	0.602	0.624	
I try to work proactively, thus being alert to emerging problems	3.88	0.97	0.546	0.599	0.772
I can make difficult decisions quickly	3.32	1.04	0.694		0.769
I prepare myself adequately for unforeseen events that may occur in my work	3.51	0.99	0.603		
I have the ability to control and lead complicated situations	3.41	1.07	0.695		0.711
I have the capacity to react to unexpected changes	3.76	0.94	0.579		0.662
I try to tackle problems before they appear, or as soon as possible	3.75	1.01	0.487		0.575
SS loadings				3.873	3.646
% of variance explained				0.298	0.280

Bold values show the percentage of variance that has not been explained by the Factor, but it is equal to: 1 - Commonality, which is provided.

conditions ($M = 7.17$, $SD = 1.87$) and in crisis situations ($M = 7.69$, $SD = 1.58$). In terms of age, the three groups showed greater collaborative attitudes (closer to 9), both in normal conditions and during crises. Highly competitive attitudes (rating 1 to 3) are presented by a small percentage of respondents (from 1.5 to 7.3%) in all cases. In the junior group, 71.6% has a highly collaborative attitude (6 to 9 points) in normal conditions, and 79.4% have a highly collaborative attitudes during crises. Mid-career workers showed the highest level of collaborative attitude: 77.1% on normal conditions, and 89.3% in times of crisis. The senior group presents the lowest level of collaborative attitude: 60% on normal conditions and 78.5% during crises. Therefore, seniors seem to be significantly more inclined to adopting competitive attitudes.

Discussion. Context, situation, location, and time are moderating elements of competitive productivity (Baumann et al., 2018). Due to the SARS-CoV2 (COVID-19) pandemic, the present study was conducted in a context of high social and economic uncertainty, especially in the tourism industry. This context acts as a moderating element in the components that affect ICP (Baumann et al., 2019). Times of crisis are a real challenge for organisations and add a greater importance on being competitive and productive. To adapt to changing situations during crises, companies must gain speed and flexibility, which are key characteristics of resilient organisations. Crises are, therefore, a moderating element of great importance.

The present investigation’s results suggest that tourism professionals from different age groups show different attitudes towards individual resilience and competitiveness/collaboration in the workplace. Older individuals seem to show greater resilience, in addition to being more inclined towards competitive attitudes, both in regular work conditions and in times of crisis.

The two dimensions of individual resilience identified in the factor analysis are related to elements of internal and psychological resilience (Openness & ideals)—which have been addressed by previous resilience studies (e.g. Luthar, 2006)—as well as to more practical resilience traits (Competencies), which is supported by operational keys (decision-making, response, leadership, control, and preparedness). This classification does not seem to be related to the two dimensions identified in organisational resilience by Lee et al. (2013): adaptive resilience and planning.

Individuals’ attitudes and behaviours in an organisation are arguably affected by human resource management. Talent management aimed at developing employees’ resilience contributes to improving their well-being, and consequently, the organisation’s performance (Lewis and Heckman, 2006). Human resource management practices need to appreciate the importance of building personal resilience in everyday events, as the way in which one deals with the many micro-moments in a day helps build a new framework and “re-contextualise” macro-contexts (Stokes et al., 2019). Effective talent management in an organisation can provide a firm with CP in a competitive environment in which product lifecycles have shortened, consumer expectations are increasingly high, and pressure on costs and prices is constantly growing (Baumann et al., 2019). This insight must be considered by human resources departments, as the weak element of individual resilience seems to be operational competencies.

The results obtained by the present work do not conclusively show that the younger generation has a greater resilience. However, the findings do corroborate previous results (e.g., Mudrack et al., 2012) according to which younger people tend to adhere to a more supportive and collaborative work behaviour, rather adopting competitive attitudes. The “leveraging

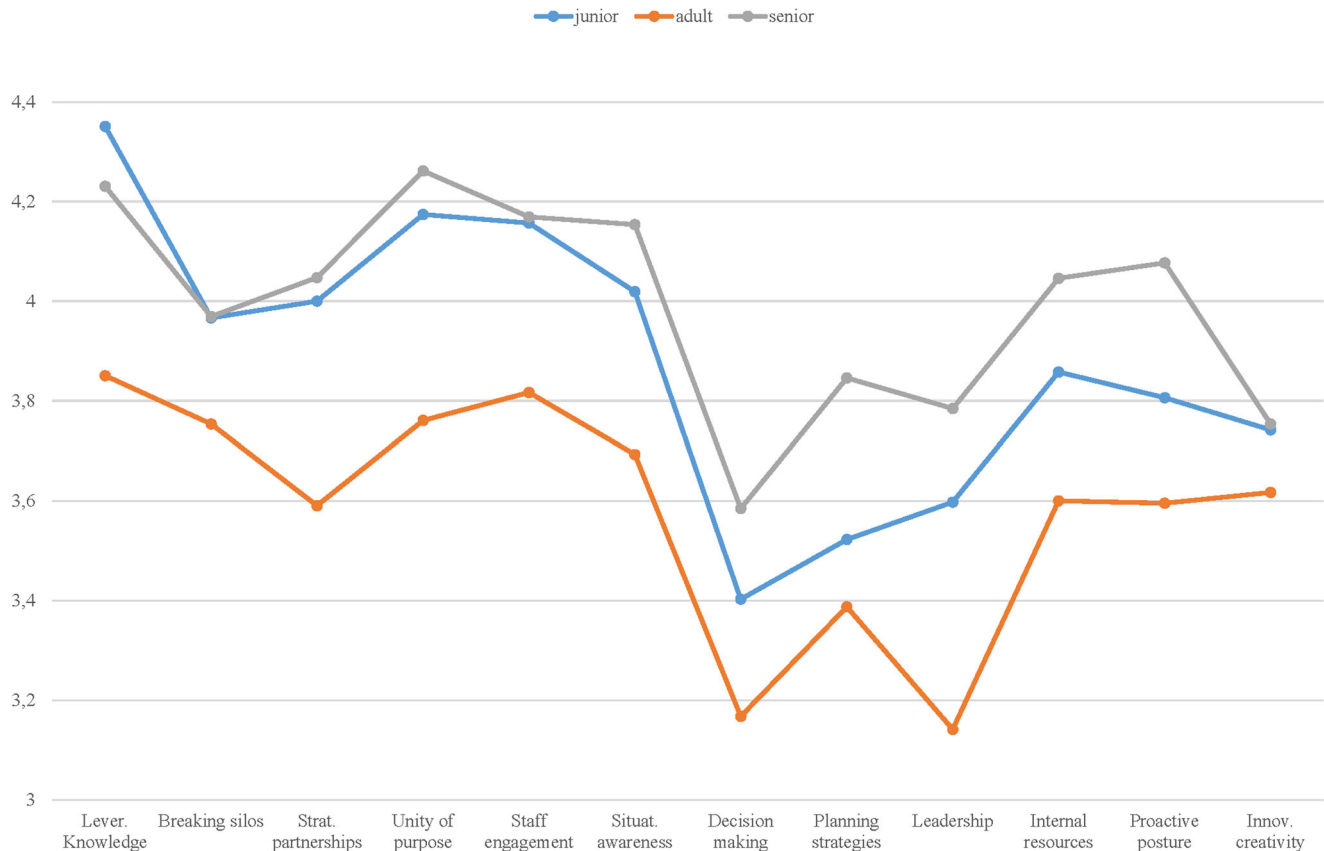


Fig. 1 Mean values of individual resilience indicators by age. This figure shows the average values of the 12 individual indicators of resilience for three age groups (junior, adult, and senior) on a scale from 1 to 5.

knowledge” indicator, which highlights the aspect of solidarity and willingness to place personal talent at the service of the organisation, reaches a strikingly high score within the junior group (4.35 out of 5). Searching for a solution to the paradox between the option for resilience or organisational diversity involves a combination of sense-making—favoured by bricolage (Weick, 1993; Mallak, 1998)—and action. Accordingly, previous studies showed that a systematic approach to talent management that selects, develops, and promotes the most appropriate employees in each situation gives a company a sustainable competitive advantage (Ashton and Morton, 2005; Berger and Berger, 2010). Therefore, it may be advisable—both during crises and in “normal” conditions—to encourage diversity in recruitment, in addition to selecting the most resilient candidates.

In the contemporary perspective, resilience is understood as a transformation process through which individuals not only cope and successfully deal with change, but also learn from it, adapt, and thrive in the new environment (Näswall et al., 2013). The existence of pluralistic teams that stimulate diversity of views within an organisation, as well as vertical communication flows between different levels, can help promote ambidexterity. Ambidextrous organisations are endowed with the flexibility to compete in both emerging and mature markets (Tushman and O’Reilly, 1996), and consequently achieve superior levels of performance (Johnson et al., 2017). However, achieving organisational ambidexterity is a challenging pursuit, as organisations need to combine traits that may seem contradictory (Smith and Tushman, 2005; Gavetti and Levinthal, 2000). Organisations that consider inputs from both junior and senior employees in their decision decision-making process are more likely to “follow a dramatically different course of action from that which is the

norm for the organisation” (Lengnick-Hall and Beck, 2016, p. 11), providing the necessary contrast for fostering behavioural resilience (Toubes et al., 2020). In this context, a policy of empowering employees at both junior and senior levels provides an organisation with a variety of visions that allows new ideas to emerge.

Conclusion

This paper aims to further explore the hypothesis that individual resilience is closely related to the components of the ICP model, both conceptually and in terms of measurement. First, a conceptual analysis was carried out by delving into the characteristics that identify both concepts. Based on existing literature on organisational resilience in tourism organisations, a scale of individual resilience at work adapted for tourism professionals was designed. To validate the scale, a quantitative study was carried out in Spain during the COVID-19 crisis. Data was collected through an online survey with tourism professionals and students. The scale was contrasted with the elements proposed in the ICP construct. Results point to clear correspondences, both in the conceptual scope and in the components and indicators that comprise the scales.

A factor analysis identified two underlying factors in the construct that measures individual resilience. The first factor is related to internal characteristics of resilience, and describes attitudes such as solidarity, openness and communication within the organisation, collaboration with external agents, and networking. The second factor encompasses a series of operational resilience indicators, such as decision-making, response, leadership, control, and preparedness.

The age variable was employed as a proxy for life experience, one of the components that drives ICP. The results show that both during crises and in normal conditions, older individuals seem to show greater resilience and are more inclined towards competitive attitudes. Moreover, the results point to a direct relationship between personal resilience and organisational resilience, which in turn, can lead to competitive advantages. On the other hand, integrative thinking is valued as a tool to foster diversity in the organisation, which can be achieved by incorporating personnel with different levels of experience. Therefore, encouraging the recruitment of young talents can foster a diversity of views within the organisation. This helps promote organisational ambidexterity, which involves being both efficient and innovative. The two perspectives—the experience of senior employees and the importance of diversity, are compatible in practice. In this vein, human resources departments should adopt this dual view in their recruitment policies.

Indicators of individual resilience appear to show different values across age groups. Statistically significant differences were found between junior, mid-career and senior workers. However, the three established groups follow a similar pattern of response. In all three age groups, the resilience indicators most closely related to operational aspects present lower values. This result suggests that human resources departments should continuously enhance the operational competencies of personal resilience, as resilience is generally weak among employees at all levels within an organisation. Moreover, they must foster organisational ambidexterity by combining young (more innovative and collaborative) with more experienced (more competitive and resilient) personnel. By considering the insights brought about by the present study's findings, organisations can become more resilient, and consequently, keep competitiveness during the crisis that currently impacts economies and societies worldwide. Increasing tourism organisations' resilience during such crisis is of great importance for society in general, as more resilient organisations can remain competitive, and consequently, keep their personnel, rather than downsizing and increasing unemployment. In sum, more resilient tourism organisations can arguably contribute to a more resilient society, and thus, attenuate economic and life quality losses during crises.

Despite its contribution, the present study is not without its limitations. First, the sample is highly heterogeneous as it encompasses both tourism professionals and students. Second, the surveys took place during a severe crisis that affected all sectors of society, with consequences such as economic loss and even compulsory confinement. Although this unique context arguably increases the study's relevance, it can also introduce bias in the responses on behaviours and attitudes, due to the high levels of uncertainty the situation implies. For instance, although the literature shows that crises place greater importance on productivity and competitiveness, the COVID-19 crisis, due to its disruptive character, might have driven tourism organisations and workers into survival (rather than productive or competitive) mode, as they were dealing with more urgent matters, such as employees' illness and even death. Additionally, regarding methodology, age is the only variable used to approximate life experience. However, not every life experience leads to adaptive capability that can be used within an organisational context, and it is likely that other variables, which have not been considered, also come into play. These could include, for instance, workers' managerial level, and their time of experience in and out of the organisation. Objective elements that measure productivity in a company, as well as opinions, should be incorporated. Additionally, studies in the context of other types (and intensities) of crisis are also necessary to check how generalisable the results are.

Finally, evaluating workers' attitudes during normal conditions would also be advisable.

Data availability

The datasets analysed during the current study are available in the Dataverse repository: <https://doi.org/10.7910/DVN/4YZOKA>.

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Author contributions

DRT conceived and drafted the research article and supervised the entire creation process. NA-V collected, classified and coded the data and revised the writing and editing. AFdA analysed and interpreted the data for the work and performed the formal analysis. JAF-B reviewed the methodology and provided constructive criticism throughout the study. All authors have read and agreed to the published version of the manuscript.

Competing interests

The authors declare no competing interests. All authors of this article declare that there is no conflict of interest and that we have no economic or commercial interests that could have affected the research presented. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Ethical approval

This study did not involve any kind of clinical or medical experimentation or any identifiable human material and data. This was a non-interventional study that collected data through an online survey and ensured the anonymity of the respondents. The survey was designed to elicit the opinions and views of the respondents on their adaptability at work. The respondents were not asked to provide their names, identification, address, or any other identifying elements. The authors followed the ethical guidelines of the Declaration of Helsinki. Due to the non-interventional nature of the study and the other features outlined above, this study was granted exemption from requiring ethics approval by the Ethics Committee of the Master's Degree in Inland and Health Tourism Management and Planning de la Universidade de Vigo.

Informed consent

All participants were informed of the purpose and scope of the study and how the data would be used. They were also assured that their anonymity would be maintained and

that no personal or identifying information would be collected or disclosed. All participants gave their informed consent for inclusion before they participated in the online survey.

Additional information

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