Measuring practitioners' creativity in the Taiwanese tourism and hospitality industry

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ABSTRACT

This study draws on tourism and hospitality literature to develop a new creativity scale that highlights the importance of creativity in the tourism and hospitality industry. It is important for practitioners to develop greater creativity so as to solve problems and obtain competitive advantages. However, few studies have comprehensively examined the impact of creativity on changes in the tourism and hospitality industry, and there is a lack of empirical research on the critical attributes of creativity from the perspective of tourism and hospitality practitioners. This study seeks to fill this gap by constructing and testing a new theoretical model in the tourism and hospitality sector. The scale's reliability and validity are examined through exploratory factor analysis (EFA) and confirmatory factor analysis (CFA), using samples collected from 854 tourism and hospitality practitioners (579 college students majoring in tourism and hospitality and 275 practitioners in the tourism and hospitality industry). The results identify five critical attributes of creativity: process, creativity, culture, proactive personality, and satisfaction. The implications for theoretical and practical applications are also discussed.

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1. Introduction

Employee creativity can help organizations obtain competitive advantages for organizational innovation, survival, and long-term success (Woodman, Sawyer, & Griffin, 1993; Scott & Bruce, 1994; Shalley, 1995; Amabile, Conti, Coon, Lazenhy, & Herron, 1996; Oldham & Cummings, 1996; Amabile, 1997; Ford & Gioia, 2000; George & Zhou, 2001; Runco, 2004; George, 2007). Employee creativity refers to the creation of valuable and useful new products, services, ideas, procedures, or processes that can solve problems through the actions of individuals who work together in a complex social system (Woodman et al., 1993). Research on creativity has concentrated on examining the antecedents of employee creativity in an organizational context, such as creative personalities (Batey, Chamorro-Premuzic, & Furnham, 2009; Hughes, Furnham, & Batey, 2013; Oldham & Cummings, 1996; Zhou, 2003), organizational contexts and job characteristics (Amabile et al., 1996), job creativity requirements (Shalley, Gilson, & Blum, 2000), and leadership (Shin & Zhou, 2003). Besides, the creativity aspects of the 4P model of "person", "process", "place", and "product" have been raised in recent studies (Hansen, Monllor, & McMurchie, 2012; Peng, Lin, & Baum, 2013). Tourism and hospitality researchers have not developed an integrated theoretical framework based

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on the 4P model that explains the unique, independent effects of tourism and hospitality organizations' employees to help organizations more fully leverage the influence of the 4P model on creativity.

A proactive personality refers to a person with a positive attitude who displays the initiative to change procedures in terms of job performance and organizational environment and who thus tends to be creative (Seibert, Kraimer, & Crant, 2001). Karpova, Marcketti, and Kamm (2013) also found major creative traits within the fashion industry were risk taking, open minded, and determined. Despite the potential importance for creativity (Amabile et al., 1996; George & Zhou, 2001; Woodman et al., 1993), only a few studies have examined how proactive personalities have fostered creativity (Heinzen, 1999; Kim, Hon, & Crant, 2009; Kim, Hon, & Lee, 2010). For instance, one study that has investigated the linkage between proactive personalities and creative behaviours is that of Seibert et al. (2001), who found that a proactive personality is positively associated with an individual's innovation behaviours.

Many researchers have described an organization's culture as a predictive factor of its success (Choi, Seo, Scott, & Martin, 2010). Delobbe, Haccoun and Vandenberghe (2000) have recently made reference to the understanding of organizational culture as one of the most powerful theoretical tools for an organization's development. In the hospitality industry, Wong and Pang (2003) found training and development, organizational culture, open communication and staff recognition to be the primary motivators of the management staff's creativity. On the other hand, creativity is one of the most important factors for motivating organizational dynamism and survival. Fleith (2000) has argued that creativity may not merely occur in an individual's thoughts, as a suitable atmosphere begets and supports creative thoughts.

Lubart (2001) defines the creative process as the sequence of thoughts and actions that leads to truly creative production; therefore, prior knowledge and the production process might be taken together as the creative process, and the actual product is taken as a creative performance, which makes use of and builds upon the earlier processes. However, it is also possible to see the process as prior or potential knowledge or capacity and the performance as a combination of the production process, which builds upon earlier mental processes, and the final product (Alfonso-Benlliure, Meléndez, & García-Ballesteros, 2013; Lassig, 2013; Lubart, 2001). Although it is hard to know to what extent the creative process varies across the hospitality field, that is, depending on the nature of the task (Nemiro, 1997; Lubart, 2001), creativity researchers in general have long been aware of the importance of both the nature of the final product and the process of making said product. An interesting (if incidental) aspect of this project's findings is that they tend to challenge the common (Western) stereotype that Asians (particularly the Chinese) are not highly creative (Riquelme, 2002); the hospitality field is one area (management might be another) in which East Asians can clearly manifest their creative talents.

Creativity theory advocates creative-process engagement, which is defined as employee involvement in creativity-relevant methods or processes of creativity requirements of jobs and related creative performance (Zhang & Bartol, 2010). Creative-process engagement is a key creativity requirement for individuals in creative theory and includes attitudes, work-place, satisfaction, and organizational culture (Shalley et al., 2000). This narrow definition for creativity raises the question of how creative-process engagement interfaces with the broader responsibilities and accountabilities that tend to be a part of careers with strong creativity components (Gilson & Shalley, 2004). This void is particularly significant because creative-process engagement tends to be cognitively demanding for employees, and such activities are ultimately connected to organizational competitive advantage (Zhang & Bartol, 2010).

Although the link between creativity and organizational success has been documented in the tourism and hospitality industry (e.g., Wong & Pang, 2003), little research has been conducted to understand creativity and its dimensions as an antecedent for job or occupational satisfaction. Robinson and Beesley (2010) have found that there is a clear relationship between creativity and both organizational and occupational satisfaction. Hence, the purpose of this study is to review and integrate the results of previous literature. Because most of the earlier studies have addressed the determinants of creativity exhibited by individual employees, this will be the emphasis of our review. We provide a synthesis based on the 4P model of creativity using tourism and hospitality organizations to build the new research framework. In sum, this study aims to fill this void by using creativity theories and Rhodes' (1961) 4P theory as an overarching theory and develop the creativity scale for tourism and hospitality business practitioners. Through a literature review and statistical analyses, this study proposes indicators to measure the creativity of tourism and hospitality business practitioners, and it serves as a tool for training a professional workforce in the tourism and hospitality industry. We also suggest a number of new directions for creativity research.

2. Literature review

Creativity refers to the generation of novel and useful ideas (Amabile, 1997; Oldham & Cummings, 1996). Researchers have devoted much attention to examining the important attributes and antecedents of creativity (Amabile, 1997; Ford & Gioia, 2000; George & Zhou, 2001; Pearce, 2004). In the decision-making process, creativity is of crucial importance (O'Halloran & O'Halloran, 2001). In the past, many researchers have defined creativity in terms of the development of new ideas about products, practices, services or procedures— ideas that are potentially useful to the organization in the short or long term (e.g., Amabile, 1996). While the traditional "4Ps" definition of creativity emphasizes the perspectives of person, place, process and product (Rhodes, 1961), researchers have recently begun to interpret creativity in more holistic, dynamic and multidimensional terms. There is also a greater awareness that major breakthroughs tend to be the cumulative effect of incremental procedural adaptations.

Creative performance, defined here as both the actual production process and the final product itself, should be understood as the outcome of a complex interchange between individuals and their context (Scott & Bruce, 1994). Guastello, Shissler, Driscoll and Hyde (1998) found that the potential for creative performance was greatest in "people who engaged in a wide repertoire of cognitive styles". Most previous studies have measured observable (that is, performed) creativity using ratings provided by other individuals, and some laboratory studies have used the consensual assessment technique (CAT) (Amabile, 1996), in which two or more expert judges rate the overall creativity of each solution or product that a research participant has generated. Such an approach allows for an evaluation of the reliability of inter-judge creativity ratings; if there is an acceptable level of reliability, a creativity score is computed as the average of the creativity ratings for each participant across the generated solutions and/or creative products (Shalley & Perry-Smith, 2001).

According to the componential theory, creativity is included in multiple dimensions and concentrated on individual and contextual factors that influence creative performance (Amabile, 1996; Gilson & Shalley, 2004; Shalley, Zhou, & Oldham, 2004). Recently, the 4P model has commonly made explicit acknowledgment of contextual factors for creativity (Tanggaard, 2013). A review of the creativity literature relevant to the 4P model reveals that the exact number of main attributes considered to be involved in the creative model has differed somewhat in various conceptualizations. However, creative theorists of the 4P model generally include four aspects: person, process, place, and product (Greene, 2013; Tanggaard, 2013).

A number of studies have considered how broad personality factors relate to psychometric and task-based creativity (e.g., Batey et al., 2009; Hughes et al., 2013). A proactive personality refers to an individual with a disposition towards engaging in active role orientation, such as initiating change and influencing his or her environment (Bateman & Crant, 1993). Proactive people initiate changes, take action, and persevere until meaningful change occurs through the achievement of their goals, as opposed to passive people, who just adapt to their undesirable circumstances (Crant, 2000). For example, Bateman and Crant (1993) noted that proactive people actively worked to manipulate their environment and sought out new information and practices to improve their performance. In a similar vein, Seibert et al. (2001) stated that proactive people attempted to promote their career prospects rather than passively reacting to the job situation as it was presented. Compared with passive individuals, proactive people were also more likely to suggest new ways of performing tasks to achieve their goals and to generate new ideas to improve performance. In addition, they were more likely to identify opportunities and act on them by exceeding normal job expectations (Van Dyne & LePine, 1998; Seibert et al., 2001). As a result, proactive individuals tended to actively engage in updating their knowledge and skills and identifying new work processes. The display of initiative and desire to surpass normal job expectations, usually exhibited by proactive people, appeared to have positive effects on creativity.

Although most of the empirical research on proactive personalities has been conducted in the United States (Bateman & Crant, 1993; Van Dyne & LePine, 1998; Seibert et al., 2001), the logic behind the argument above may not be culturally bound and thus should be cross-validated in other countries. For instance, Chan (2006) demonstrated in a Singaporean sample that a proactive personality was positively associated with attitudinal and behaviour work outcomes, such as job satisfaction, organizational commitment, and job performance among individuals with high levels of situational judgment effectiveness. In addition, Kim et al. (2009) found that a proactive personality was positively associated with employee creativity among Chinese employees in Hong Kong.

Along with daily progress in knowledge, technology and data flow, organizations' managers will require higher education and skill development to keep pace with the developments in knowledge and technology to ensure that their organizations may link and tackle the problems utilizing collective knowledge and the contemplation of new and creative ideas (Mobarakeha, 2011). To this effect, managers will need powers of observation and mentality to help them identify and address the organization's internal and external forces. Many researchers have described an organization's culture as a predictive factor of its success (Choi et al., 2010). Delobbe et al. (2000) have recently made reference to the understanding of organizational culture as one of the most powerful theoretical tools for an organization's development. In the hospitality industry, Wong and Pang (2003) found training and development, organizational culture, open communication and staff recognition to be the primary motivators of the management staff's creativity. On the other hand, creativity is one of the most important factors for motivating organizational dynamism and survival. Fleith (2000) has argued that creativity might not merely occur in an individual's thoughts, as a suitable atmosphere begets and supports creative thoughts. Cheng (2010) found that teachers' creative tensions and dilemmas in a Chinese context originated from problems on several levels, including the individual level, the systematic level and the cultural level.

Several studies have explored the role of the creative process in stimulating creative performance or production (e.g., Alfonso-Benlliure et al., 2013; Lassig, 2013; Tierney & Farmer, 2004). Parnes and Noller (1972) found that students who completed a sequence of creativity courses significantly outperformed comparable control students in terms of fluency, flexibility and the capacity to reflect on their own ideas. Nemiro (1997) examined actors' creative processes, linking general preparation, rehearsal and performance activities to the stages described in Amabile's (1996) model. Lubart (2001) argued that certain process sequences and/or sub-processes would lead to a highly creative product and that a great number of other possible sequences and/or sub-processes would lead to less creative (or even non-creative) products.

For a creative response to emerge, an individual must engage in creative activities, such as problem identification, environmental scanning, data gathering, unconscious mental activity, solution generation and evaluation, and solution implementation (Simon, 1966; Shalley, 1991). This creative process determines the flexibility with which cognitive pathways are explored, the attention given to particular aspects of the task, and the extent to which a particular pathway is
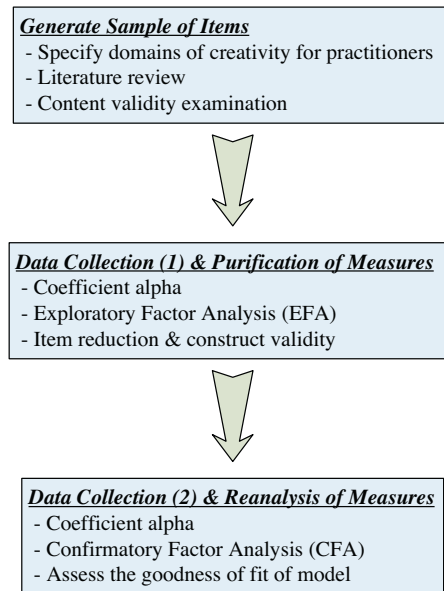
Fig. 1. Procedure of scale development.

followed in pursuit of a solution (Amabile, 1996). If cognitive processing is interrupted, then critical information will not have been accessed or used in problem solving, which results in an outcome of low creativity (Shalley, 1995).

It is well established that creativity is an essential element for organizational success; creativity and innovation are required for organizations to adapt and change. Although the link between creativity and organizational success has been documented in the tourism and hospitality industry (e.g., Wong & Pang, 2003), little research has been conducted to understand creativity and its dimensions as an antecedent for job or occupational satisfaction. Robinson and Beesley (2010) find that there is a clear relationship between creativity and both organizational and occupational satisfaction. This study draws upon important concepts from the previous studies and uses person, place, process, and product (Rhodes, 1961) as a foundation for the development of creativity indicators for tourism and hospitality practitioners.

3. Methodology

This study follows the guidelines of Bateman and Crant (1993); Cameron and Quinn (1999); Cameron, Quinn, and Tromp (1999); Greenhaus, Parasuraman, and Wormley (1990), Horng and Hu (2009); Seibert, Crant, and Kraimer (1999); Zhang and Bartol (2010), and Zhou and George (2001) to develop a creativity scale for proactive personality, culture, process, satisfaction, and creativity among tourism and hospitality industry practitioners. In addition to examining the creativity scale's reliability and validity, this study adopts multiple stages of item analysis (Sirakaya-turk, Ekinci, & Kaya, 2008; Woosnam & Norman, 2010) to construct this scale. Stage one focused on generating and refining items. In stage two, a pilot test was conducted. The researchers then modified the scale by conducting an exploratory factor analysis (EFA) and deleted any inappropriate items. A construct validity analysis was also conducted. Stage three used the data collected from the pilot test for analysis. A confirmatory factor analysis (CFA) was performed to check the model's overall fit. The research procedure is shown in Fig. 1.

3.1. Item development

Churchill (1979) suggested that the topic of research must be clarified, with all terms and content accurately defined. This study reviews and analyses creativity research based on person, place, process, and product (Rhodes, 1961). After a thorough literature review, this study divided creativity into five constructs: proactive personality, culture, process, satisfaction, and creativity. These five constructs were further with 53 items in total. The items were measured on a seven-point Likert scale as follows: 1 (strongly disagree), 2 (disagree), 3 (somewhat disagree), 4 (neutral), 5 (somewhat agree), 6 (agree) and 7 (strongly agree).

3.2. Data collection and analysis

To ensure that the scale served the purpose of this study, the scale's validity was examined in two stages. Given that students majoring in tourism and hospitality are the most likely to become tourism practitioners in the future, a pilot test was conducted among college students who study tourism or hospitality management. The data were collected from five

geographically representative universities in Taiwan that offer bachelor's degrees in hospitality management. The questionnaires were distributed to a total of 700 students at the junior and senior levels. The first stage of data analysis helped researchers revise each item's content to improve its validity. An EFA was then performed to examine the appropriateness of each construct and item. The response rate was 82.7%, with a total of 579 valid responses.

Descriptive statistics, extreme group analysis and homogeneity analysis were used to determine whether the data were at an acceptable level. No missing values were found in the responses, and the means of all items were quite close to the intermediate values. The value of Cronbach's α was above the recommended value of 0.7, and each item's homogeneity was highly consistent, which suggested that all 53 items should be retained. The scale's five constructs were examined for internal consistency and reliability. The researchers conducted a Kaiser-Meyer-Olkin (KMO) measurement and a Bartlett's test of sphericity to determine whether the sample data were appropriate for factor analysis. The results showed that the KMO index was 0.962. Bartlett's test of sphericity was significant at a level of 0.000, indicating that it was appropriate to conduct the factor analysis on the data.

An EFA was conducted to assess the construct validity and to examine the meaning and structure of the latent variables. A principal-axis factor analysis was performed with factors whose eigenvalues were above 1. The results of the analysis were presented in a factor matrix as shown in Table 1. After the pilot test, it was determined that the creativity scale should have five constructs. Each construct was named according to the literature review, as follows: Process (Pr), Creativity (Cr), Culture (Cu), Proactive personality (Pp), and Satisfaction (Sa). There were a total of 32 items.

For the second stage of data collection, the researchers conducted a nationwide sampling from businesses in the tourism, hospitality and catering industries. Through convenience sampling, a total of 338 copies of the creativity scale were distributed to restaurants, hotels and other tourism premises. The response rate was 81.36%, with 275 valid responses retrieved. A CFA was then employed to assess the validity of the scale and to examine the meaning and structure of the latent variables. The CFA results were used to modify and refine the scale, thus enhancing the scale's applicability.

Next, following the recommendations of Kline (2005) and Bagozzi and Yi (1988), the researchers assessed the model's overall goodness-of-fit. The results of the assessment showed that the χ^2 value was 1063.70, over the significance level, with its p value below 0.000. Bagozzi and Yi (1988) suggested that the size of the sample should also be examined, and the desirable Chi-square/df value should not exceed 3. In this case, the Chi-square/df was 2.34, within the desired level. Afterwards, the researchers examined the other goodness-of-fit indices (GFIs).

After assessing the offending estimate, the overall model fit and the fit of the model's internal structure, the model is shown to potentially require modification to surpass the strict standards. Therefore, the modification indices (MIs) were taken as the modification reference. The MI threshold was set at 20. After considering the MI value, the researchers decided to remove item Pr7 ("I look at the same thing from different perspectives"), Cr7 ("I am not afraid to take risks"), and Pp5 ("I can spot a good opportunity long before others can"). After the revision, the scale consisted of 29 observable variables with five latent variables. The results of the modified model fit analyses are presented in Table 2, and they suggest that the model exhibited a good overall fit.

Overall goodness-of-fit shows whether the model fits the observed data. The fit of a model's internal structure examines the reliability of the measuring indicators and the latent variables, and it also assesses the significance level of the estimated parameters. This study followed the recommendations of Bagozzi and Yi (1988) and set the threshold for acceptable internal consistency as follows: the composite reliability of latent variables must be above 0.60; the average variance extracted (AVE) of latent variables must be above 0.50; and all estimated parameters must reach the significance level.

4. Results

Table 2 shows the results of the model fit measurement. Of all of the fit indexes, neither the GFI nor the adjusted goodness-of-fit index (AGFI) exceeded the fit value of 0.80, which suggested that the model required further modification. The researchers then went a step further, examining the composite reliability of every latent variable and the AVE to assess the model's internal consistency. The results showed that the composite reliability of the five latent variables ranged between 0.86 and 0.95; thus, all were above the 0.6 threshold (Bagozzi & Yi, 1988). The AVE ranged between 0.57 and 0.71. All values were above the standard of 0.50, suggesting that the five observable variables could fully reflect their latent counterparts.

The results of the fit of the model's internal structure are shown in Table 3. As Table 3 shows, all parameters that went through the CFA were above the significance level. To sum up the analyses, the CFA results suggest that the model presented in this study has excellent internal consistency and can be used to interpret the observed data. The researchers conducted a CFA to verify whether the correlation between the measuring variables and the factors retrieved from the EFA in the first stage was consistent. Table 3 also shows that the CFA t-values of the five constructs were all above 3.29, and the AVE of each construct ranged between 0.59 and 0.71, exceeding the level of 0.50 recommended by Fornell and Larcker (1981). In addition, the composite reliabilities ranged between 0.85 and 0.94, also exceeding the 0.60 level recommended by Fornell and Larcker (1981), which indicated that the scale exhibited good internal consistency.

Table 1
Results of the modified exploratory factor analysis.

Content of factor/construct	Factor loading	Eigenvalue	Total variance	Interpretation variance %	Alpha
Factor 1. Process		15.5	44.4	44.4	0.94
I assess different opinions and select the most plausible one.	0.92				
When a sound idea is generated, I will implement it after thorough evaluation.	0.83				
I look for connections with solutions used in seeming diverse areas.	0.76				
If an idea is not good enough, I will seek a new one instead.	0.76				
I consult a wide variety of information.	0.75				
A decision is made only after thorough consideration.	0.74				
I look at the same thing from different perspectives.	0.74				
I try to devise potential solutions that move away from established ways of doing things.	0.57				
I try to test every concept during the creative process.	0.55				
I generate a significant number of alternatives to the same problem before I choose the final solution.	0.54				
I spend considerable time shifting through information that helps to generate new ideas.	0.5				
I retain large amounts of detailed information in my area of expertise for future use.	0.44				
Factor 2. Creativity		2.2	5.59	49.98	
I am a good source of creative ideas.	0.82				
I will searches out new technologies, processes, techniques, and/or product ideas when I am learning.	0.8				
I often have a fresh approach to problems.	0.7				
Comes up with new and practical ideas to improve performance.	0.7				
Develops adequate plans and schedules for the implementation of new ideas.	0.69				
I suggest new ways to increase quality.	0.62				
I am not afraid to take risks.	0.47				
Factor 3. Culture		1.64	3.85	53.83	
My class is like an extended family. People seem to share a lot of themselves.	0.95				
My class emphasizes high cohesion and morale.	0.91				
The glue that holds my class together is loyalty and trust.	0.86				
My teacher is generally considered to be a mentor, or a parent figure.	0.49				
Factor 4. Proactive personality		1.52	3.3	57.13	
I love being a champion for my ideas, even against others' opposition.	0.75				
No matter what the odds, if I believe in something I will make it happen.	0.72				
If I believe in an idea, no obstacle will prevent me from making it happen.	0.67				
If I see something I do not like, I fix it.	0.66				
I can spot a good opportunity long before others can.	0.51				
Factor 5. Satisfaction		1.17	2.2	59.33	
I am satisfied with the progress I have made toward meeting my goals for performance.	0.91				
I am satisfied with the progress I have made toward meeting my overall study goals.	0.81				
I am satisfied with the success I have achieved in my study.	0.78				
I am satisfied with the progress I have made toward meeting my goals for knowledge.	0.69				
Kaiser-Meyer-Olkin measure of sampling adequacy					
Bartlett's test of sphericity (significance level)					

Table 2
Results of the model fit measures.

Index	Chi-square/df	GFI	SRMR	RMSEA	AGFI	NFI	RFI	CFI	IFI
Original Value	2.343	0.80	0.061	0.070	0.77	0.96	0.96	0.98	0.98
Modified Value*	**2.122**	**0.84**	**0.060**	**0.064**	**0.81**	**0.97**	**0.96**	**0.98**	**0.98**
Fitted Value	<3.0	>0.8	<0.08	<0.08	>0.8	>0.9	>0.9	>0.9	>0.9

Asterisk represents all the values of fit indexes reached the fitted value, and the model exhibited a good overall fit.

5. Discussion and conclusion

The creativity scale developed in this study highlights the practitioners' perspectives on tourism and hospitality and suggests a variety of critical indictors that have been gathered from a literature review and questionnaires. The first stage analysis suggests five important constructs for the creativity scale: Process (Pr), Creativity (Cr), Culture (Cu), Proactive personality (Pp), and Satisfaction (Sa). To examine the scale's reliability and applicability, the second stage of this study collected additional samples and assessed the scale's validity. As expected, the results showed that the composite reliability of the five latent variables exhibited a good overall fit. It appears that tourism and hospitality practitioners feel that the creativity scale develops from these five critical attributes and constructs.

Table 3
Results of the fit of internal structure of model.

		Factor loading	t-value	Composite reliability	Variance extracted
Process (Pr)				0.94	0.59
Pr1	I assess different opinions and select the most plausible one.	0.77	14.91		
Pr2	When a sound idea is generated, I will implement it after thorough evaluation.	0.78	15.29		
Pr3	I look for connections with solutions used in seeming diverse areas.	0.82	16.25		
Pr4	If an idea is not good enough, I will seek a new one instead.	0.84	16.96		
Pr5	I consult a wide variety of information.	0.78	15.17		
Pr6	A decision is made only after thorough consideration.	0.81	15.93		
Pr8	I try to devise potential solutions that move away from established ways of doing things.	0.72	13.63		
Pr9	I try to test every concept during the creative process.	0.75	14.24		
Pr10	I generate a significant number of alternatives to the same problem before I choose the final solution.	0.76	14.68		
Pr11	I spend considerable time shifting through information that helps to generate new ideas.	0.76	14.52		
Pr12	I retain large amounts of detailed information in my area of expertise for future use.	0.65	11.9		
Creativity (Cr)				0.9	0.61
Cr1	I am a good source of creative ideas.	0.8	15.53		
Cr2	I will searches out new technologies, processes, techniques, and/or product ideas when I am working.	0.86	17.57		
Cr3	I often have a fresh approach to problems.	0.84	16.89		
Cr4	Comes up with new and practical ideas to improve performance.	0.77	14.73		
Cr5	Develops adequate plans and schedules for the implementation of new ideas.	0.68	12.39		
Cr6	I suggest new ways to increase quality.	0.73	13.77		
Culture (Cu)				0.91	0.71
Cu1	Our organization is like an extended family. People seem to share themselves a lot.	0.82	16.23		
Cu2	Our organization emphasizes high cohesion and morale.	0.93	19.99		
Cu3	The glue that holds our organization together is loyalty and trust.	0.86	17.55		
Cu4	Our leader is generally considered to be a mentor, or a parent figure.	0.74	13.95		
Proactive personality (Pp)				0.85	0.59
Pp1	I love being a champion for my ideas, even against others' opposition.	0.75	13.92		
Pp2	No matter what the odds, if I believe in something I will make it happen.	0.76	14.13		
Pp3	If I believe in an idea, no obstacle will prevent me from making it happen.	0.76	14.2		
Pp4	If I see something I do not like, I fix it.	0.8	15.21		
Satisfaction (Sa)				0.86	0.62
Sa1	I am satisfied with the progress I have made toward meeting my goals for performance.	0.9	18.67		
Sa2	I am satisfied with the progress I have made toward meeting my overall career goals.	0.9	18.61		
Sa3	I am satisfied with the success I have achieved in my career.	0.81	15.88		
Sa4	I am satisfied with the progress I have made toward meeting my goals for knowledge.	0.46	7.79		

All t-values were significant at the $p < 0.001$ level.

This study extends existing theoretical and empirical models by incorporating a variety of aspects of creativity. The results of the empirical research presented in this study have important theoretical implications for the tourism and hospitality literature on the creativity concepts. The 4 P model used in the study illustrates an application of novel ideas stemming from creativity theory relating to the tourism and hospitality field. The extant literature on creativity has highlighted the importance of creativity, and the relationship between proactive personality, culture, process and satisfaction has gained significant attention in the tourism and hospitality industry (e.g., Kim et al., 2009; Robinson & Beesley, 2010; Tierney & Farmer, 2004; Wong & Pang, 2003). An investigation of regulations and rewards, education and increased awareness of creativity, and resource management may contribute to an understanding of practitioners' creativity changes. Thus, it is important for practitioners to incorporate creativity into their work. However, few studies have comprehensively examined the impact of creativity on changes in the tourism and hospitality industry. The results of this study indicate the crucial attributes of creativity that are necessary for tourism and hospitality practitioners and that are highly beneficial to the sustainable development of this industry. Given the lack of attention in previous studies, this is an important finding that provides significant implications for tourism and hospitality management literatures. This study also sheds light on the 4P model and its application in tourism and hospitality organizations to enhance employee satisfaction and creativity performance. The findings related to the 4P approach open up a range of avenues for increasing creativity.

Our findings contribute to the understanding of the main attributes of creativity. Enhancing creativity in tourism and hospitality will facilitate behavioural changes and increase awareness among tourism and hospitality operators about the importance of creativity. The findings provide important evidence that suggests that some factors (process, culture, proactive personality, and satisfaction) influence tourism and hospitality practitioners' creative performance through realistic and appropriate actions. Finally, this study contributes to the identification of critical dimensions of creativity that may influence individual awareness and actions, an area that has been largely ignored. Karpova et al. (2013) explored industry professionals viewed creativity as artistic creativity and creative problem solving. Maier and Thomas (2013) highlighted the importance of experiential learning, particularly in hospitality education, and revealed that the benefits of experiential learning include creative and critical thinking skills, the integration of various coursework elements, and improved interpersonal skills. Particularly within the hospitality industry, educators are advised to focus specifically on problem-solving skills due to practitioners' numerous daily interactions with customers within the customer-centric hospitality and tourism industry (Nicolaides, 2012).

These results have several implications for tourism and hospitality management. First, the proposed scale can clearly identify the content and structure of creativity for practitioners and can help them assess where improvements are needed. Second, knowledge of creative practices can be shared during new employees' orientation and current employees' on-the-job training, and this scale can be used to evaluate new employees. Therefore, this scale provides important resources for tourism and hospitality managers and practitioners when they hire or train employees. It would be beneficial to use the scale to evaluate the creativity of future practitioners (i.e., college students in related departments). Finally, and most importantly, if key figures, including governmental organizations, support the creative aspects of tourism and hospitality, operators and practitioners can make better use of the creativity scale and develop related factors. In this way, practitioners will be aware of efforts in both the public and private sectors, and they will be more willing to practice creativity in the tourism and hospitality industry.

In summary, this study sheds light on the important attributes of creativity through the perspectives of practitioners. However, some limitations must be considered in further research. First, this study derived empirical results from a sample in Taiwan, thus raising concerns about the study's external generalizability to other countries. Different countries may have different creativity-related concepts and values. It is recommended that future studies empirically test the validity of the creativity concepts and framework in other countries. Second, tourism and hospitality management covers a wide range of fields. This study attempted to collect representative samples, such as travel agencies, restaurants, hotels, and food and beverage operators, but its scope is not exhaustive. Future research should compare and analyse the different characteristics of different fields (e.g., travel agencies, hotels, and food and beverage operators) to provide operators and planners with a clear direction and strategic guidance.

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