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Factors Affecting the Effectiveness of Management Creativity Using Theory Planned Behavior

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Abstract: *The success of organizations in today's rapidly changing business landscape greatly hinges on the effectiveness of management creativity. This research aimed to uncover the elements influencing the effectiveness of management creativity by employing the Theory of Planned Behavior. The study's findings indicate that two significant predictors of management creativity effectiveness are one's attitude towards it and the subjective norms within the organization. Such results are rather important for the organizations and their leaders who would want to increase management creativity. The attitudes of subordinates towards management creativity should be positive if managers wish to cultivate management creativity among their employees, and the organizational culture must be one that enhances and supports creative thinking. They should also make available all the requisite resources and support required for the implementation of their creative ideas and let employees participate in the decision-making processes in order to increase their sense of control over their creative activities. This research contributes to the literature on managerial creativity by presenting evidence about the effectiveness of managerial creativity and the strategies aimed at increasing the level of creativity in organizations through empirical insights.*

Keywords: *Management Creativity, Attitudes, Subjective Norms, Perceived Behavioral Control.*

1. INTRODUCTION

The most recent research conducted in the field of management science, especially that dealing with the creative aspects of the management processes, emphasizes its importance generally in the renewal and development of organizational structures and their respective industries. This centrality stems from the generation of new approaches, which seek to address the problems that help in progress within these institutions [1-4]. Businesses today are obliged to be adaptable and regularly offer new concepts as a means of gaining an edge over their competitors in an ever-changing business environment [5]. Management creativity, defined as the ability of managers to develop new and useful concepts and ideas is also considered as a critical factor for achieving an organizational goal [6-8] The Theory of Planned Behavior (TPB) delineates the types of attitudes, the subjective norms and the perceived behavioral control of managers that can influence their creativity behavior [9]. In this article, we wish to focus on the application of the TPB concerning administrative creativity.

Attitudes:

Attitudes are an individual's people's assessment towards evaluating or reviewing any predefined action positively or negatively. In terms of administrative creativity, these attitudes can alter the willingness of a manager to think of new ideas. For example, any manager who believes that the development of creativity in the organization is important tends to be more active in creative processes [10-13]. According to TPB, attitudes can be shaped by beliefs regarding the consequences of a behavior, encompassing anticipated results and perceived risks. Consequently, organizations can boost management creativity by fostering a culture that esteems and incentivizes creative actions and by offering managers training to enhance their creative aptitude [14-16].

Subjective norms:

Subjective norms denote the perceived social influence or pressure to execute a specific behavior. Within the realm of management creativity, managers may be swayed by the viewpoints and

expectations of their peers and superiors [17-19]. When a manager believes that their coworkers and superiors place a high importance on creativity, they are more inclined to participate in creative tasks [20]. As per TPB, subjective norms can be molded by the perceived anticipations of influential individuals and the desire to conform to these expectations. Consequently, organizations can boost management creativity by cultivating a nurturing workplace atmosphere that promotes and acknowledges creativity, and by engaging managers in cooperative creative initiatives [21-23].

Perceived Behavioral Control:

Perceived behavioral control focuses on an individual's perception of the easiness or difficulty in performing a certain behavior. For instance, in the case of management creativity, the managers may be encouraged by their self-belief of being able to come up with creative ideas [24]. A manager's confidence about exerting the necessary effort in enhancing creativity or even resource availability determines creativity endeavors [25, 26]. Factoring in the TPB, perceived behavioral control can be influenced by resource availability, behavior complexity and self-perceived ability. It is within these limits that organizations stimulate management creativity by providing the management with the required resources such as time, tools, and information for creative activities, and encouraging the management to develop their creative skills [23, 27-29]. To conclude, the Theory of Planned Behavior is an appropriate explanation of how objectives, attention, and control techniques with respect to behavior in administration creatively develop.

Management creativity in organizations can be enhanced by focusing on dimensions such as creating a culture of valuing and rewarding creativity, building a work environment that inspires and values creativity, and equipping the managers with adequate resources and training that enhance their ability to be creative. The strategies and principles as discussed where creativity of management is viewed as a specific resource that determines the objectives largely, in today's world of ever-changing businesses, achieving the strategic goals, set is therefore possible through the use of TPB principles.

The Current Management Creativity:

Given the ever evolving and intricate nature of today's business landscape, management creativity has emerged as an essential component for attaining success within organizations [30]. Management creativity encompasses the skill of managers to produce novel and practical ideas to tackle organizational challenges and seize opportunities [31, 32]. Notwithstanding the significance of this creative aspect in administration, studies indicate that numerous managers may be deficient in the essential skills and resources required to partake in creative endeavors [33-35]. Furthermore, it is important to note that organizational cultures may not consistently foster or endorse creative conduct, and managers might encounter societal and psychological obstacles to innovative thinking. Hence, there is a pressing requirement to gain deeper insights into the elements that impact management creativity and to create approaches that can amplify creative actions among managers, particularly within Jordan's sport federations [4, 36].

2. LITERATURE REVIEW

In accordance with Ren, Li [37], the research analyzed relationship between attitude, subjective norms, perceived behavior control, and management creativity in the employees in a Taiwanese organization. The findings indicated that attitude, subjective norms, and perceived behavioral control had significant and positive effects on administrative creativity. Consequently, the authors noted that TPB is a valuable framework for understanding and predicting management creativity. In the same manner, [38] the study focused on the constructs of attitude, subjective norms, perceived behavioral control, and creativity within the issue of administrative decision making. The results further illustrated that attitude and perceived behavioral control were the portrayed strong contributors to administrative creativity while it was not the case for subjective norm. Therefore, the authors suggested that companies and organizations should integrate management attitude and perceived behavioral control to foster management creativity. Other studies [39-41] analyzed the relationship between management creativity and the factors of TPB within the public sector in China. The findings revealed a positive correlation

between creative management and both attitude and perceived behavioral control, although no evidence was found of an impact on the subjective norms. Consequently, the authors suggested that public sector institutions strive to initiate administrative creativity through a better understanding of employees' attitude and perceived behavioral control [42, 43]. Reference [44] undertook sociological empirical research aimed to analyze the effects of creativity training on factors of planned behavior theory and managerial creativity in the employees of Pakistani companies. The study indicated that there was significant improvement in attitude, subjective norms, perceived behavioral control, and administrative creativity after the participation in creativity training. Consequently, the authors recommended organizations provide their workers with sufficient creative training to enhance their managerial creativity.

Finally, the study of Fong, Ficklin [45] examined the connection between the components of the TPB and managerial creativity in non-profit organizations in Hong Kong. The findings revealed a significant positive correlation between attitude, subjective norms, perceived behavioral control, and managerial creativity. Therefore, the researchers suggested that organizations should foster the development of factors such as employee's attitudes, subjective norms, and perceived behavioral control to enhance managerial creativity. The literature reviewed as part of this research highlights that the TPB framework is beneficial in examining and predicting management creativity. These studies indicate that attitudes and perceived behavioral control are the most significant determinants of creativity for administrators, while subjective norms have a less pronounced effective. Consequently, organizations should prioritize cultivating positive attitudes and perceived behavioral control among management-level employees. Additionally, implementing internal policies to enhance management innovation, providing training in creativity, and encouraging creative efforts among employees could be effective strategies.

3. RESEARCH HYPOTHESIS

The main objective of this study is to evaluate the factors that enhance management creativity within the sports federation of Jordan. The federation aims to organize competitions, conduct events, and provide training opportunities in various sporting activities including football, basketball, volleyball, athletics, and others. Considering the study's problem and objectives, this research analyzes the following hypotheses:

H1: There is an evident connection between attitudes and management creativity.

H2: There is an evident connection between subjective norms and management creativity.

H3: There is an evident connection between perceived behavioral control management creativity.

4. RESEARCH METHODOLOGY

This section elaborates on research methodology. The subsequent sections comprise this work's substance, encompassing the study design, population, and sample size.

Population and Sample Size:

Jordan's Sport Federation (JSF) serves as the central governmental authority overseeing sports in Jordan, responsible managing and promoting of their practice in the country. The federation governs a variety of sports, including but not limited to running, soccer, basketball, volleyball, athletics, and athletics. Its primary tasks include planning diverse sporting events, contests, and training sessions. The JSF plays a crucial role in identifying and developing the national teams and athletes, ensuring they are equipped for international competitions. Also, the federation collaborates with sporting clubs and associations in the country to advance various sports disciplines. The JSF represents Jordan's interests at both the state and international levels, working alongside global sport organizations. Its strategic objectives focus on expanding and enhancing the quality and quantity of sports participation in Jordan. Furthermore, the federation stives to create opportunities for Jordanian athletes to achieve success nationally and internationally. In the context of this work, the concepts of population and sample size are fundamental

to the statistical and research design [46, 47]. The study's population, relevant to the research's objectives, is Jordan's Sport Federation [48].

A sample is a scaled-down representation of the entire population, prepared for study purposes. The sample size refers to the measurable number of human subjects, objects, or events included in that sample. It is a crucial element in research design as it significantly impacts the reliability of the research findings [49, 50]. Prior to conducting the survey, the survey instruments underwent rigorous checks to ensure their validity and reliability. This study was not confined to a single federation but encompassed all 42 sports federations operating in Jordan. The study's sample included all managers and vice managers of these sports federations. The calculation of the sample size followed a specified formula presented in the table, and the resultant sample size was also detailed [43].

5. FINDINGS AND DISCUSSION

This study has analyzed using Smart PLS version 3, a powerful instrument for structural equation modeling. It analyzes the latent variables embedded in the proposed causal model to generate the sample's descriptive statistics. The findings have been comprehensively summarized in the following subsections.

Evaluation of the Measurement Model:

The evaluation of the measurement model is a crucial component of any SEM analysis. This is essential to ensure the validity and reliability of the results obtained from the analysis. One common software for SEM analysis is Partial Least Squares (PLS), designed to facilitate measurement model assessment. When using PLS software, the process typically begins by identifying the measurement indicators for all the latent constructs. The software then uses indices including composite reliability and average variance extracted (AVE), to evaluate the credibility and appropriateness of these indicators. Additionally, PLS enables researchers to test for discriminant validity of the constructs by examining the cross-loadings of indicators on their respective constructs. Moreover, PLS software provides tools for assessing measurement invariance, which refers to the degree to which the measurement model remains consistent across different groups or time periods. This assessment is critical for ensuring that the measurement model is robust, reliable, and applicable under different conditions.

As earlier indicated, the application of PLS software in the evaluation of the measurement model provides a slow and systematic way of determining and improving the reliability and validity of research findings [51]. In research design, ensuring the accuracy and consistency of data relies heavily on the concepts of validity and reliability. Validity refers to the extent to which the tool or technique used measures what it is intended to measure. Different forms of validity include content validity, criterion validity, construct validity, and face validity. In contrast, reliability evaluates the steadiness and consistency factors of a measurement instrument, assessed through methods such as test-retest reliability, inter-rater reliability, and internal consistency reliability. In the current study, the measurement model was assessed in three stages: indicator item reliability, convergent validity, and discriminant validity. Sixteen reflective indices were utilized to evaluate the measurement model. The analysis revealed that item AT1 and SU2 had factor loadings below the threshold of 0.60. Following the guidelines provided in [52], factors with factor loadings between 0.40 and 0.70 were retained only when their elimination was expected to improve composite reliability (CR). This decision was made using the PLS Adjusted Algorithm Test. Furthermore, AVE was employed to confirm the convergent validity for each construct, as presented in Table 1. Convergent validity evaluates the extent to which a measurement correlates with other measurements of a given construct. In this study, 0.5 was used as the accepted level of AVE, ensuring that the minimum value met the required standard. Regarding the measurement of communicativeness, the tools for Perceived Behavior Control and Subjective Norms recorded the highest AVE of 0.819, while the Attitudes tool measured had a lower but still acceptable AVE of 0.775. These values meet the established criteria and are applied to measure the convergent validity [53, 54]. Moreover, the CR values reflected in the table below serve as indicators of the internal reliability of respective constructs. The aforementioned minimum value of 0.70 has been suggested as a

threshold beyond which accepting a higher figure is more desirable. The CR values of the constructs in question range from 0.873 to 0.931 and exceed the threshold benchmark value. Provided benchmark standards have been reached and therefore, the variables have met the requirements for the criterion of convergent validity.

Table 1: Results of Measurement Model

Variable	Items	Factor Loading	Composite Reliability (CR)	Average Variance Extracted (AVE)>50%
Attitudes	AT 1	0.569	0.873	0.775
	AT 2	0.844		
	AT 3	0.915		
Subjective Norms	SU	0.940	0.901	0.819
	SU	0.297		
	SU3	0.869		
Perceived Behavior Control	PB1	0.885	0.931	0.819
	PB2	0.917		
	PB3	0.913		
Management creativity	AC1	0.914	0.924	0.802
	AC2	0.932		
	AC3	0.937		

The contemporary study applied the Fornell and Larcker [55] and Henseler, Ringle [56] criteria to evaluate the discriminant validity of the examined constructs. A construct is deemed to have discriminant validity if, in general, the square root of the AVE is greater than the correlation indices between any pair of the variables [54]. As shown in Table 2, the Fornell and Larcker approach confirms that all constructs exhibit good discriminant validity since the R2 values are lower than the corresponding AVE values. Moreover, the Heterotrait-Monotrait Ratio (HTMT), which assesses the relationship among constructs to represent the construct score, was utilized. Based on the results shown in Table 3, all constructs met the established thresholds, indicating no concerns regarding discriminant validity. Therefore, both models substantiate the discriminant validity of the measurement model.

Table 2: Valuation of Discriminant Validity [55]

	Administrative Creativity	Attitudes	Perceived behavioral control	Subjective Norms
Administrative Creativity	0.895			
Attitudes	0.655	0.880		
Perceived behavioral control	0.725	0.625	0.905	
Subjective Norms	0.895	0.668	0.762	0.905

Table 3: Valuation of Discriminant Validity (Htmt) [56]

	Administrative Creativity	Attitudes	Perceived behavioral control	Subjective Norms
Administrative Creativity				
Attitudes	0.808			
Perceived behavioral	0.821	0.765		

control				
Subjective Norms	0.030	0.882	0.921	

The constructs as shown in Table 3–Attitudes, Subjective Norms, Perceived Behavior Control, and Management Creativity–are confirmed as valid measures for their respective constructs in this study, as supported by factor estimates and their statistical significance. The overall findings substantiate that the measurement model is adequately supported by the empirical data, demonstrating that it is reliable, exhibits convergent validity, and satisfies the criteria for discriminant validity.

Evaluation of the Structural Model:

The inner model, also referred to as the structural model, examines the causal relationships between the constructs under investigation. Therefore, the research hypotheses, which support the predicted relations or influences among these constructs, are evaluated in the context of the structural model. Therefore, in the current study, three research hypotheses were tested employing the path. Path coefficients range from -1 to +1, where a coefficient closer to +1 indicates a strong positive relationship, while a negative coefficient suggests a strong inverse relationship [54, 57]. When testing the significance of relationships as depicted through the path coefficient value, a t-value exceeding the critical threshold indicates that the correlation is significant at the specified level of error probability. Based on the findings in Table 3, the research hypotheses regarding the effects of Attitudes and Subjective Norms on administrative creativity are supported. However, the hypothesis regarding the influence of Perceived Behavioral Control on the belief in management creativity belief is not supported.

The results of the study, as presented in Table 4, show that Attitudes have a positive and significant effect on management creativity (ß = 0.087, t = 2.509, $p < 0.05$), supporting Hypothesis 1. Subjective Norms also significantly and positively influence Management Creativity (ß = 0.776, t = 14.399, $p < 0.05$), supporting Hypothesis 2. On the other hand, Perceived Behavioral Control has no significant effect on management creativity (ß = 0.079, t = 1.192, $p > 0.05$), meaning Hypothesis 3 is not supported.

Table 4: Hypothesis Testing

	Original Sample (O)	**Sample Mean (M)**	**Standard Deviation (STDEV)**	**T Statistics (|O/STDEV|)**	**P Values**
Attitudes -> Administrative Creativity	0.087	0.088	0.035	2.509	0.012
Perceived behavioral control -> Administrative Creativity	0.079	0.075	0.066	1.192	0.234
Subjective Norms -> Administrative Creativity	0.776	0.780	0.054	14.399	0.000

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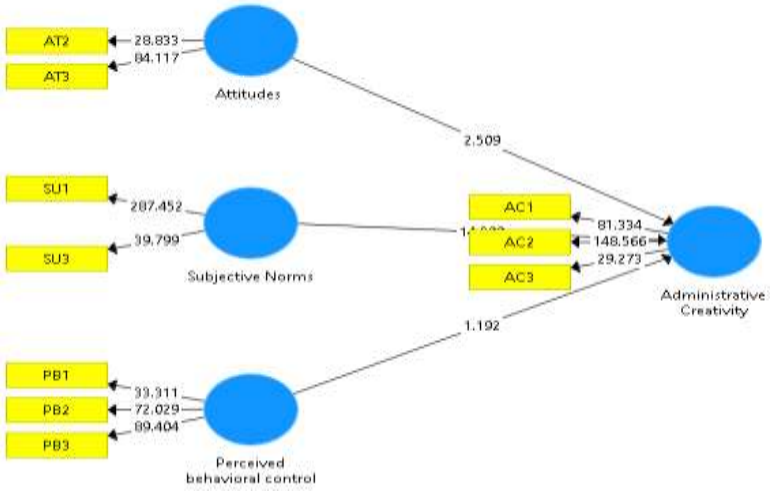

Fig. 1: Structural Model

6. DISCUSSION

In the context of management creativity, attitude and subjective norms are significant factors that foster creative behavior. An individual's attitude towards a particular behavior reflects their positive or negative disposition towards that behavior. Creative people are often inclined to be actively engaged in creative activities when they have a favorable view on creativity, leading to the generation of new ideas and solutions. Subjective norms pertain to how individuals are influenced by others, such as friends or colleagues, and whether these social influences affect their decision to engage in creative behavior. In a supportive environment where creativity is encouraged and valued, individuals are more likely to share innovative ideas, regardless of perceived risks. On the other hand, perceived behavioral control reflects an individual's confidence in their ability to execute a given behavior. Although this dimension is important, it alone may not be sufficient to drive creativity. Even with the necessary skills and resources, individuals may refrain from engaging in creative activities if they lack support or recognition from leaders, or if there is no culture of innovation. Therefore, elements such as leadership support, adequate resources, and an innovation-friendly culture are crucial for fostering creativity among managers.

7. IMPLICATION AND RECOMMENDATIONS

Implementing the Theory of Planned Behavior (TPB) within organizations can significantly enhance the understanding and promotion of management creativity. TPB emphasizes an individual's behavior is influenced by their beliefs, the attitudes of others, and the perceived ability to perform a behavior. The findings of this study highlight actionable recommendations for fostering creativity in administrative roles include:

Attitudes: Cultivating a culture that values creativity and innovation is fundamental at the organizational level. This can be achieved by recognizing and rewarding creative ideas and solutions, providing means for developing goals by training and developing, and promoting the acceptance of prudent risk taking.

Subjective norms: A supportive social culture must be nurtured within organizations. endeavoring and instead strongly encourages undertaking creativity and innovativeness. Recommendations include involving employees in decision-making processes, promoting teamwork and open communication, and rewarding employees who innovate and create new products.

Perceived behavioral control: Organizations must empower employees with the tools and resources needed to engage in creative endeavors. This can be facilitated by providing access to brainstorming

tools and materials that inspire creativity, encourage freedom of thought and action among employees, and an environment conducive for growth and experimentation.

Encouraging intention: **Organizations can adopt a more positive stance towards creative action by fostering a sense of responsibility, providing appropriate feedback, and encouraging employee creativity in every possible way.**

Carry out the plan: Organizations should offer help implementing creative ideas, provide the necessary resources and material support, promote collaborative work, and recognize and reward successful executions.

Overall, that way of application of TPB principles to enhance management creativity can help organizations to cultivate a creative environment. This, in turn, leads to better solutions to problems, increased customer lifetime value, and improved performance.

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