

The impact of work environment on the creativity level of employees of Movenpick City Star Hotel in Jeddah

تأثير بيئة العمل على مستوى الإبداع لدى الموظفين في فندق موفنبيك
سيتي ستار جدة

Prepared by

Basma Mansoor Abbas (Leader)

221000851

Ahod Khaled Al Amari (Team member)

221000694

Supervised by

Dr. Walid Soliman

2023

Content

Abstract.....	5
Introduction.....	6
Study problem.....	7
Study objectives.....	7
Importance of the study.....	8
Study question.....	9
Study hypotheses.....	9
Literature review.....	10
1. Creativity in organizations.....	10
2. Work environment.....	11
3. The Dimensions of the Work Environment	13
3.1 Autonomy.....	13
3.2 Clarity	13
3.3 Managerial Control.....	13
3.4 Co-worker Cohesion	14
3.5 Innovation.....	14
3.6 Involvement.....	15
3.7 Task Orientation.....	15
3.8 Physical Comfort.....	16

3.9 Supervisor Support.....	16
3.10 Work Pressure	17
4. The relationship between creativity and work environment.....	17
Methodology	19
1. Participants.....	19
2. Instrument or study tools.....	20
3. Procedure.....	21
4. Statistical methods.....	21
Results.....	21
1. Descriptive analyses of the study group.....	22
2. Analysis of Data.....	23
3. Response of the participants to the items of the work environment scale.....	24
4. Response of the participants to the items of the creativity scale.....	31
Discussion.....	35
Conclusion.....	38
Study field.....	39
Recommendations.....	39
Research limits.....	40
References	41
Appendix	51

Tables

Table1 : Characteristics of the study group.....	22
Table 2 : Average scores for the items describing the domain “Autonomy”	24
Table 3 : Average scores for the items describing the domain “Clarity”	25
Table 4 : Average scores for the items describing the domain “Managerial control”	26
Table 5 : Average scores for the items describing the domain “Co-worker cohesion”	26
Table 6 : Average scores for the items describing the domain “Innovation”	27
Table 7 : Average scores for the items describing the domain “Involvement”	28
Table 8 : Average scores for the items describing the domain “Task orientation”	28
Table 9 : Average scores for the items describing the domain “Physical comfort”	29
Table 10 : Average scores for the items describing the domain “Supervisor support”	30
Table 11 : Average scores for the items describing the domain “Work pressure”	30
Table 12 : Average scores for the items describing “Creativity”	31
Table 13 : Comparing creativity score among participants according to their characteristics.....	32
Table 14 : Correlation between creativity and domains describing the work environment.....	33
Table 15 : Regression analysis for the items of work environment predicting creativity.....	34

Abstract

Today, organizations are facing real challenge regarding to competitions, as they have to create innovative strategies and stimulate creativity. Work environment is one of most important factors that can influence creativity and innovation. It affects the employee's productivity, performance and creativity. This study aims to determine the effect of work factors on the creativity level of the employees of Movenpick City Star Hotel in Jeddah. In addition, the study reveals which factor can positively or negatively affect creativity to find the most influential elements. The regression analysis for the data collected from 93 employees, using ten environmental factors related to creativity, was performed. Among the factors, work pressure is found to have a significant negative effect on the creativity level of the employees and a negative predictor of creativity. However, the other nine factors including autonomy, clarity, managerial control, co-worker cohesion, innovation, involvement, task orientation, physical comfort and supervisor support are found to have a positive influence of the creativity level of the employees. Moreover, three work environment factors; autonomy, managerial control and supervisor support are found to be a significant predictor of employees' creativity. In conclusion, these findings are providing insights to organizations that aims to have creativity within the organization.

Introduction

Creativity is the process of producing novel ideas for solving problems and developing innovative products and services (3). The creativity research has been started since 1950s and until today, where it becomes a growing recognition for the companies and organizations. It revealed its importance as a source of competitive strength and success since it turns ordinary companies into market leaders (33, 52, 55, 68, 78). Therefore, it becomes a major concern for organizations that are facing the global economic competition today (68).

Work environment has a crucial impact on the employee's performance and therefore in achieving the organization goals (64). It is a combination of factors that influence their work performance and level of motivation in terms of job satisfaction and intention to leave or turnover intentions (38, 69, 77). Effective work environment will increase the output and improve the employees' productivity which entitles an attractive, creative, comfortable, motivating, and satisfactory environment for the employees (19, 84).

Creativity is important for organizations to reach high level of performance, which requires supportive work environment (90). The latter is able to stimulate creativity by providing physical and social stimuli that give rise to creative performance of the employees (78). Several components and external conditions in the work environment can inhibit or facilitate creativity (56). Therefore, exploring what factors influence the level of creativity of the individuals or groups is important, as they can contribute significantly in ideas generation, organizational success, and long-

term survival (78, 45, 35, 75, 2). For example, Gu and his group found a positive influence of leader's moral stance on the creativity of the team (39).

Study problem

Most of previous studies have examined the relationship between some environmental factors on the creativity of employees rather than the work environment factor (85). Work environment has several elements that can be investigated but there are insufficient studies regarding this matter. For this reason, this study intends to fill the research gaps by examining the effect of work environment on the creativity level of employees in Movenpick City Star Hotel in Jeddah and how the work environment must be designed in order to encourage creativity.

Study objectives

The main objective of the study is to determine the effects of the work environment factors on the creativity level of the employees of Movenpick City Star Hotel in Jeddah. Several sub objectives will be achieved to identify which factors are positively or negatively affect the employees' creativity. Based on Work Environment Scale (WES), which was developed by Moos and Insel, there are three dimensions and ten subscales that measure the social environments of different work settings, which was used to form the following study objectives:

1. Identify the effect of autonomy on the employees' creativity level
2. Identify the effect of clarity on the employees' creativity level
3. Identify the effect of managerial control on the employees' creativity level
4. Identify the effect of co-worker cohesion on the employees' creativity level
5. Identify the effect of innovation on the employees' creativity level
6. Identify the effect of involvement on the employees' creativity level
7. Identify the effect of task orientation on the employees' creativity level
8. Identify the effect of physical comfort on the employees' creativity level
9. Identify the effect of supervisor support on the employees' creativity level
10. Identify the effect of work pressure on the employees' creativity level

Importance of the study

Since there is insufficient research conducted in this field in Saudi context, the importance of this study appears in its findings as it will guide the Saudi Arabian managers in their organizational improvement. Also, it will direct the attention of the decision makers to deal with the concept of work environment and its impact on the creativity of their employees. In addition, it will help the designers who want to design work environments in such a way that encourage creativity in the employees' performance.

Study question

The research question of this study is:

RQ: What is the effect of work environment factors on the creativity level of employees in Movenpick City Star Hotel?

RQ1: What is the effect of autonomy on the employees' creativity level?

RQ2: What is the effect of clarity on the employees' creativity level?

RQ3: What is the effect of managerial control on the employees' creativity level?

RQ4: What is the effect of co-worker cohesion on the employees' creativity level?

RQ5: What is the effect of innovation on the employees' creativity level?

RQ6: What is the effect of involvement on the employees' creativity level?

RQ7: What is the effect of task orientation on the employees' creativity level?

RQ8: What is the effect of physical comfort on the employees' creativity level?

RQ9: What is the effect of supervisor support innovation on the employees' creativity level?

RQ10: What is the effect of work pressure on the employees' creativity level?

Study hypotheses

The study's intentions and the previous researches guide to indicate the hypotheses of this study. The following hypothesis will be tested:

Hypothesis.1: At least one of the work environment factors has positive impact on the employees' creativity level.

Then, in order to test which of the work environment factors has positive impact on the creativity level of employees, the following hypotheses are developed.

Hypothesis.1a: There is a positive impact of autonomy on the employees' creativity level

Hypothesis.1b: There is a positive impact of clarity on the employees' creativity level

Hypothesis.1c: There is a positive impact of managerial control on the employees' creativity level

Hypothesis.1d: There is a positive impact of co-worker cohesion on the employees' creativity level

Hypothesis.1e: There is a positive impact of innovation on the employees' creativity level

Hypothesis.1f: There is a positive impact of involvement on the employees' creativity level

Hypothesis.1g: There is a positive impact of task orientation on the employees' creativity level

Hypothesis.1h: There is a positive impact of physical comfort on the employees' creativity level

Hypothesis.1i: There is a positive impact of supervisor support on the employees' creativity level

Hypothesis.1j: There is a positive impact of work pressure on the employees' creativity level

Literature review

1. Creativity in organizations

For more than years, creativity research has been tackled from several areas and aspects including psychology, cognitive science and management. It distinct into two types in which creative achievement requires: divergent thinking which means bringing creative ideas into existence or convergent thinking which deals with creative problem-solving (15). The latter plays a crucial role in maintaining the competitive advantage of an organization (5, 25, 71). Organizational creativity is the

cornerstone of organizational change and the foundation of innovation, which is a key to organizational effectiveness (37). Work creativity is the perspective of organizational products, services, processes, and procedures (28). For organizations that value creativity and seek to be creative they need to pay attention to work environment element according to the theory that suggest its effect on an individual's creativity therefore the organizational creativity (85). There are five components for organizational creativity in which the link between them are individuals, group, and organizational characteristics that have an impact of creative process and resulting in creative output (86). Ford suggests that creativity is expected from individuals who are interested and motivated (34). Similar to Amabile's model, Ford also suggests that there are three influences that shape a person's capacity to provide creative actions and performance (5, 34). These are domain-related knowledge, creative thinking abilities, behavior skills, and work environment (68, 34, 5).

2. Work environment

Work environment is not only referred to physical environment but also includes the social environment (8). Physical environment relates to the work setting and where the employees perform their duties (89). On the other hand, social environment that deals with emotional aspects such as relationships with the supervisors and other staff, autonomy, equity, fairness, and task responsibilities (83). According to the model of Great Places to Work Institute, a research and management consultancy which have been evaluating employees and employers since 1980, employees prefer to work in well-structured and comfortable workplace in such a way that leads to better productivity (56). They also would like to work in a climate that is trustable and enjoyable (56). According to literature, work environment has been measured according to several dimensions,

which was used to create models that show the relationship between work environment factors and the organizations' employees or outcomes. According to Ekvall's model, ten factors can affect the climate within the organization which are as follows; leadership behaviour, task requirements, resources and technology, organizational culture, management practices, structure and size, mission and strategy, individual skills and abilities, motives and styles, individual needs and organizational systems, procedures and policies (5, 53).

Other dimensions were also proposed by Campbell et al. in 1970 includes the degrees of structure imposed on the position, reward orientation, and consideration, individual autonomy, support and warmth. Later in 1993, Ostroff has suggested twelve dimensions that are then grouped into three higher order dimensions: affective, cognitive, and instrumental (43). Another scale was developed by Moos's Work Environment that focuses on the social climate of work environments, which represent a group of feelings, attitudes and behaviors that describe life in an organization (87). In addition, the Work Environment Scale (WES), which was developed by Moos and Insel, has three dimensions and ten subscales. All of them measure the social environments of different work settings. These dimensions include the personal growth, the system maintenance, and the relationship dimensions (15). The latter subscales include involvement, peer cohesion, supervisor support whereas the system maintenance dimension includes the following subscales; clarity, managerial control, innovation, and physical comfort. Lastly, the personal growth dimension relates to how to make employees take decisions, workload pressure, getting their job done, be efficient and make good planning. These subscales are autonomy, task orientation, and work pressure (87).

3. The Dimensions of the Work Environment

3.1. Autonomy

Autonomy of a person can be defined as the feeling of freedom with no pressure or control of any internal or external force (22, 59). It can be reached when the work environment is created to be supportive such as when managers offering more level of choice, encouraging self-initiation, and assumes the employees' perspective (22). Increased autonomy increases the flexibility and the control of the employees in deciding how to perform the work (58). As autonomy can supports employees' behavioral changes and increase job satisfaction as well as performance, it may support the creativity of the employees in the organization (22).

3.2. Clarity

Clarity is when employees know about the company's rules and policies and its communication to them. Also, know what expect in their daily work life and what is expected from them. In addition, their job duties as well as their importance are clearly defined to them (85). According to the previous research, task clarity has a positive relationship with job satisfaction and clarity of organizational goals can affect the employees' performance in obtaining such goals (89). As a result, creative performance of employees may be also affected by the clarity of work environment.

3.3. Managerial Control

The work environment control is mainly relating to managers to keep employees under control. Managerial control is the degree of the rules and pressures that are used to keep that control

(85). The previous research revealed that management control affects several outcomes including employee's performance, job satisfaction, motivation, stress, involvement, level of absenteeism and turnover (49). It is at some extent necessary to have a control mechanism for the selective control of employee behaviour. Another study has shown that negative effects of control on the performance of employees as well as intrinsic motivation which cannot be neglected (49).

3.4. Co-worker Cohesion

Co-worker Cohesion can be described as the social interaction with satisfaction and attraction among the members of the group (79). It represents their unity and attachment to meet their objectives as well as their social needs (79). According to Fertinger, the cohesion defines as "the total field of forces which act on members to remain in the group" (18). It can be distinct into two groups; group integration and attraction to group. The first concerns the group as totality whereas the second refers to the person as a member itself (21). The cohesion groups characteristics appears in supporting each other, having a good cooperation and communication, beside the strong morale and group spirit between them (82). From the above findings, co-worker cohesion can be an essential element that leads to creative employees in the organization.

3.5. Innovation

Innovation and creativity are mainly different concepts (61). While creativity deals with the production of new ideas, innovation deals with the adoption of these ideas and transfer them into a new product or service or system etc. (43). The latter represents the successful implementation of the creative ideas within an organization (9). Therefore, innovation is the result of creativity and no

innovation without the creative processes (13). As a result, innovation can be a muck land as a factor of work environment to enhance creativity of employees in the organizations (24, 58).

3.6. Involvement

Job involvement is defined as “psychological identification with one’s work” (54). It is about how the employees see their jobs and lives united together. It also refers to the commitment to their jobs. According to the approaches of involvement in the literature, job involvement has an influence on the person’s self-esteem and in finding person’s identity (42). It is important for the employees to have high level of job involvement in order to not make them feel separated between their lives and jobs (41). It also gives them high level of satisfaction when they accomplish their duties effectively (30). Brown revealed that people who committed to their work and organization and find their jobs challenging and motivating are less intention for turnover or leaving their jobs (42). Therefore, achieving high level of creativity of employees may depend on achieving the highest level of job involvement in the organization (30).

3.7. Task Orientation

Task orientation is described as performing a task in an excellent quality by sharing the concern, vision, and outcomes, which would include evaluations and modifications (40, 74). In another word, the team members share a common concern to ensure a good performance outcome (66). This dimension requires an environment that supports the adoption of improvement of methods, policies and procedures (12). When the excellent performance is achieved, it would be a

supportive work environment for the other factors including enhancing the employees' creativity in the organization.

3.8. Physical Comfort

Physical workplace is the second most important reason for turnover of the employees in the organizations according to a study done by American Society of Interior Designers (50). It revealed that there is a strong relationship between the employees' psychology and their work environment (50). The working climate and conditions such as rest time, ventilation, safety, cleaning voice level and good physical setting have shown a great effect on the employees' performance (3). Therefore, most of the employers aim to afford the good workplace environment to increase the productivity level of their employees (3). Based on these findings, workplace can be also an effective factor that support creativity of the employees in their organizations.

3.9. Supervisor Support

Supervisor's support refers to the helping and assisting behaviour that can be provided by the direct supervisor to the employees (27, 14). It also can be shown by the organization when they value their contribution and care about their welfare to satisfy socioemotional needs (72). This support will increase the employee's incorporation and involvement in the organization (72). Therefore, support from the supervisors and the positive interaction between them can encourage the employees' creativity and hence reaching organizational creativity (29).

3.10. Work Pressure

Work pressure is the over expectation achievement from the employees in an organization. Workload pressure means extra work that distracts the main project work (51). Usually, it affects the time line or the time period set for finishing the project work (85). It may result in work stress especially if the employee fails to meet the work deadlines and make his or her depressed and exhausted and sometimes be ill (17). Therefore, the work environment of organizations better to not have that pressure when it seeks a creative employee.

4. The relationship between creativity and work environment

Creativity is multifaced which can be affected by several individual-level and environmental variables (67). Creativity of employees also depends on several factors in which some are relate to individuals such as relevant knowledge whereas others relate to the work environment (26). A study was done by Politis has shown that employee's creativity is influenced by the work environment (67). Since that several studies were conducted to find out the relationship between work environmental factors and the creativity of the organizations' employees (65). It was found that work environment includes several factors that contributes to the productivity of the employees (31). Also, it has been realized that social environment can influence the creative behaviour of the employees at some degrees (65). In addition, a study has shown the relation between physical work environment and creativity of employees (26). Another research also found that moral stance of the leaders has a positive effect on the employees' creativity (39). Moreover, Muñoz- Pascual and Galende concluded that managers should encourage intrinsic motivation for their employees to improve their creativity

level (62). Furthermore, Jyoti and Dev revealed that transformational leadership would increase the creativity of the employees (48). In another project, it was concluded that the climate of the organization has a moderate effect of emotional intelligence on the creativity of employees (46). In line with these findings, Jiang et al. suggested that employees who face bullying by their leaders affect their creative performance (47). Nevertheless, a study was done by Rodríguez-Sánchez et al. observed that group engagement plays a curial role between work group cohesion in relation with their creativity (73). The existence of music sounds or silence or fresh air in a work environment can also stimulate the creativity of the employees (81).

During that period of discoveries, a quantitative research instrument called KEYS was developed by Amabile et al. to assess the work environment factors that are necessary to foster creativity in organizations (9, 11). The instrument represents a componential model of creativity that describes the psychological and social components necessary for an individual to be creative (4, 9, 6). The instrument includes eight environmental scales, in which six were identified as “stimulant scales” that encourage creativity and two were identified as “obstacle scales” as they are negatively related to creativity (9, 7). The six scales are organizational encouragement, supervisory encouragement, work group supports, freedom, sufficient resources, challenge (9). On the other hand, the two scales are organizational impediments and workload pressure (7).

Further research was conducted in Turkey has shown that the ability of problem solving and adaptation factors at individual level were found to have positive relationship with creativity (20). Also, group diversity and commitment were found to have positive relationship with creativity at the group level (20). In addition, another study has revealed a strong positive association between

creative work environment and affective employee attitudes (32). Eren and Gündüz (2002) have also examined how the characteristics of the work environment affect creativity at work (32). Several factors were examined and revealed their positive effect on creativity except communication factor which was found to have negative effect on creativity (32). The sum of the studies findings show that creativity depends not only on individual factors but also on several work environment factors that can impact the creativity of employees (70). Therefore, organizations should build an attractive work environment so that the employees are able to be creative (1, 76, 88).

Methodology

1. Participants

The study targeted the employees of Movenpick City Star Hotel in Jeddah, Saudi Arabia. The data were collected from 93 employees working in different departments and divisions in the hotel. The departments were as follows; front office, sales and marketing, engineering, human resources, finance, kitchen, housekeeping, reservation, security, food and beverage, information technology, and steward. The employees were randomly selected from the departments (cluster random sampling). The study was focused on several factors of the work environments. The questionnaire was distributed to all the volunteered workers and eliminated to the workers who did not give a complete response. The total questionnaires were analyzed using specific tools.

2. Instrument or study tools

The quantitative research instrument in this study was a questionnaire to obtain the information and data necessary for the study. The reason for the choice of questionnaire as the method because experimentation and observation are not always possible to do. Also, the questionnaires cost low and reduce the biases that may be caused by the characteristics and the skills of the interviewers (63). In addition, it gives them time to think about their environment and don't have pressure to give the answers in a limited time (63). The questionnaire items were adopted from two scales, WES and KEYS, that covered the following work environment dimensions: autonomy, clarity, managerial control, co-worker cohesion, innovation, involvement, task orientation, physical comfort, supervisor support, work pressure, and creativity. All items are rated on a likert scale, 5-point scale ranging from "I totally disagree" to "I totally agree".

The work environment scale is a very well-known validated measure that focused on social climate of work environments, measures employee preferences for the mentioned dimensions (60). It measures how people perceive the environment and how it influences their behavior. It entailed ten subscales comprises nine items in each. On the other hand, to measure employees' creativity level, ten-item scale from KEYS research instrument that was developed by Amabile et al., to assess employees' collective perception of their company's climate in terms of creativity, was used in the questionnaire (9). (see Appendix for details of corresponding items in each dimension).

3. Procedure

For the purpose of data collection, the relevant administrative staff, including the general manager and human resources manager, were contacted. A written email was sent describing the purpose of the study and its objectives and outcomes. An electronic questionnaire was fulfilled by the participants. Before the questionnaire was administered, an electronic informed consent form was received and agreed by each participant who decided to take part in the study. They were also assured about the confidentiality of the data and information they provided. The criterion of selection of respondents was that only those who answered all the questionnaire items.

4. Statistical methods

Frequency distribution of answers and percentages was generated and linear regression analysis. SPSS statistical program was also used to generate the descriptive analysis including mean, median and standard deviations. In addition, the correlation coefficient Pearson was used to get the results as accurate as possible. The reliability coefficient of Cronbach's Alpha of the factors was calculated in order to test the availability of the consistency and internal consistency between the answers to the questions. Knowing that the statistically acceptable value of the Cronbach's Alpha coefficient was 60%.

Results

In light of the goal of the study in assessing the effect of various factors of work environment on creativity and according to the study design, 93 workers in Movenpick City Star hotel in Jeddah

were enrolled in the study. They were asked to fill down a predesigned valid questionnaire assessing work environment and creativity. The results' section is formed of two main compartments; the first one provides descriptive statistics of the study group and their responses to the items of work environment and creativity. The second one displays bivariate analysis answering the research questions. Items 34, 51, and 63 were excluded from the analysis as there were missing data.

1. Descriptive analyses of the study group:

Table 1 shows the characteristics of the respondents. The great majority of the participants (84.9%) are males, and most of them aged 40 years or younger (79.6%). More than one half of the participants (57%) had university qualifications in addition to 4.3% who had postgraduate degree. Most of the participants had experience in the current hotel for <3 years (41.9%) they were working mainly in housekeeping (24.7%), food and beverage (15.1%), front office (13%), and engineering (10%).

Table16 : Characteristics of the study group (n=93).

Characteristics	No.	Percentage
<i>Gender:</i>		
Male	79	84.9
Female	14	15.1
<i>Age categories:</i>		
<30 years	42	45.2
30-40 years	32	34.4
41-50 years	12	12.9
>50 years	7	7.5
<i>Education level:</i>		
High school	36	38.7

University	53	57.0
Postgraduate degree	4	4.3
<i>Years of experience in current hotel:</i>		
<3 years	39	41.9
3-7 years	34	36.6
8-11 years	14	15.1
≥12 years	6	6.5
<i>Work in administrative job:</i>		
Housekeeping	23	24.7
Food & Beverage	14	15.1
Front office	13	14.0
Engineering	10	10.8
Finance	7	7.5
Human resources	7	7.5
Security	7	7.5
Kitchen	5	5.4
Sales & Marketing	3	3.2
Reservation	2	2.2
Information Technology	1	1.1
Steward	1	1.1

2. Analysis of Data

The tools of the study (the work environment and creativity assessment questionnaires) were tested for internal consistency and its applicability in the current setting. The Cronbach's alpha for work environment scale is 0.955 and for creativity scale is 0.920; which denotes high reliability.

3. Response of the participants to the items of the work environment scale:

The average score for the items describing the work environment was calculated with a score ranging from 1 for strongly disagree to 5 strongly for strongly agree with a maximum of "5", **Table 2** shows the agreement average scores for "autonomy" domain, the highest score was recorded for "Employees are encouraged to learn things even if they are not directly related to the job" with average score (mean $\pm$ SD, 3.74 $\pm$ 0.92), while the lowest score was recorded for "Employees generally do not try to be unique and different" (mean $\pm$ SD, 2.96 $\pm$ 1.05).

Table 17 : Average scores for the items describing the domain "Autonomy".

Dimensions and items	Mean	SD	Median
<i>Autonomy</i>			
Q1: Employees are encouraged to make their own decisions	3.56	1.06	4
Q11: Employees have a great deal of freedom to do as they like	3.38	1.04	4
Q21: Employees function fairly independently of supervisors	3.34	0.90	4
Q31: People can use their own initiative to do things	3.52	0.79	4
Q41: Supervisors encourage employees to rely on themselves when a problem arises	3.53	0.95	4
Q61: Employees generally do not try to be unique and different	2.96	1.05	3
Q71: Employees are encouraged to learn things even if they are not directly related to the job	3.74	0.92	4
Q81: Supervisors meet with employees regularly to discuss their future work goals	3.71	1.02	4

Table 3 shows the response on the item "Clarity", it reveals that the highest agreement score was given for the item "Supervisors encourage employees to be neat and orderly" (mean $\pm$ SD, 3.84 $\pm$ 0.96),

while the lowest score was recorded for “Rules and regulations will be somewhat vague and ambiguous” (mean $\pm$ SD, 2.86 $\pm$ 1.05).

Table 18 : Average scores for the items describing the domain “Clarity”.

Dimensions and items	Mean	SD	Median
<i>Clarity</i>			
Q2: The responsibilities of supervisors are clearly defined	3.82	0.92	4
Q12: The details of assigned jobs are generally explained to employees	3.77	0.78	4
Q22: Things are sometimes pretty disorganized	2.99	1.06	3
Q32: Fringe benefits are fully explained to employees	3.73	0.94	4
Q42: Activities are well planned	3.55	0.98	4
Q52: Employees are often confused about exactly what they are supposed to be	3.27	0.91	4
Q62: Rules and regulations will be somewhat vague and ambiguous	2.86	1.05	3
Q72: Rules and polices are constantly changing	3.34	0.87	4
Q82: Supervisors encourage employees to be neat and orderly	3.84	0.86	4

Table 4 illustrates that the highest score for the domain “Managerial control” was reported for the item “Supervisors are always checking on employees and supervise them very closely” (mean $\pm$ SD, 3.91 $\pm$ 0.78) and the lowest score was recorded for the item “People can wear wild looking clothing while on the job if they want” (mean $\pm$ SD, 2.59 $\pm$ 1.26).

Table 19: Average scores for the items describing the domain “Managerial control”.

Dimensions and items	Mean	SD	Median
<i>Managerial control</i>			
Q3: Supervisors are always checking on employees and supervise them very closely	3.91	0.78	4
Q13: Supervisors keep a rather close watch on employees	3.66	0.93	4
Q23: Employees are expected to conform rather strictly to the rules and customs	3.78	0.82	4
Q33: Rules and regulations are pretty well enforced	3.76	0.93	4
Q43: People are expected to follow set rules in doing their work	3.77	0.75	4
Q53: People can wear wild looking clothing while on the job if they want	2.59	1.26	3
Q73: There’s a strict emphasis on following policies and regulations	3.40	1.00	4
Q83: If employee comes in late, he or she can make it up by staying late	3.16	1.04	4

Regarding the domain “co-worker cohesion”, **Table 5** shows that the highest agreement score (mean±SD, 3.70±1.00) was recorded for the item “People go out their way to help a new employee feel comfortable”, while the lowest score (mean±SD, 2.99±0.96) was found the item “Employees who differ greatly form the others in the organization don’t get on well”.

Table 20 : Average scores for the items describing the domain “Co-worker cohesion”.

Dimensions and items	Mean	SD	Median
<i>Co-worker cohesion</i>			
Q4: Employees often eat lunch together	3.45	1.16	4
Q14: People take a personal interest in each other	3.39	1.03	4
Q24: Employees often talk to each other about their personal problems	3.25	1.01	4
Q44: Employees rarely do things together after work	3.31	1.10	4

Q54: People go out their way to help a new employee feel comfortable	3.70	1.00	4
Q64: The atmosphere is somewhat impersonal	3.06	0.97	
Q74: People are generally frank about how they feel	3.45	0.75	4
Q84: Employees who differ greatly from the others in the organization	2.99	0.96	3
don't get on well			

For the domain "Innovation", the highest score (mean±SD, 3.74±0.94) was found in the item "New and different ideas are always being tried out", while the lowest score (mean±SD, 2.91±1.00) was found in the item "Variety and change are not particularly important" (**Table 6**).

Table 21 : Average scores for the items describing the domain "Innovation".

Dimensions and items	Mean	SD	Median
<i>Innovation</i>			
Q5: New and different ideas are always being tried out	3.74	0.94	4
Q15: This place would be one of the first to try out a new idea	3.65	0.96	4
Q25: New approaches to things are rarely tried	3.28	0.97	4
Q35: There is fresh, novel atmosphere about the place	3.53	0.86	4
Q45: Doing things in a different way is valued	3.58	0.86	4
Q55: The same methods have been used for quite a long time	3.38	0.86	4
Q65: Things always seem to be changing	3.37	0.73	4
Q75: Variety and change are not particularly important	2.91	1.00	3
Q85: Things tend to stay just about the same	3.15	0.90	4

Table 7 shows that, under the domain "Involvement", the highest agreement score (mean±SD, 3.81±0.97) was given to the item "People will seem to take pride in the organization", while the lowest score (mean±SD, 2.71±1.15) was given to the item "There's not much group spirit".

Table 22 : Average scores for the items describing the domain “Involvement”.

Dimensions and items	Mean	SD	Median
<i>Involvement</i>			
Q6: It is hard to get people to do any extra work	2.96	0.98	3
Q16: The work is usually very interesting	3.76	0.89	4
Q26: People put quite a lot of effort into what they do	3.80	0.89	4
Q36: Few people ever volunteer	3.10	0.91	4
Q46: People will seem to take pride in the organization	3.81	0.97	4
Q56: The work is really challenging	2.99	0.99	3
Q66: There’s not much group spirit	2.71	1.15	3
Q76: A lot of people seem to be just putting in time	3.12	0.94	4
Q86: It is quite a lively place	3.41	1.13	4

For the domain “task orientation”, **Table 8** shows that the highest score (mean±SD, 3.88±1.02) was recorded for the item “Employees work very hard”, while the lowest score (mean±SD, 2.77±1.12) was recorded for the item “There’s a tendency for people to come to work late”.

Table 23: Average scores for the items describing the domain “Task orientation”.

Dimensions and items	Mean	SD	Median
<i>Task orientation</i>			
Q7: People pay a lot of attention to getting work done	3.71	0.95	4
Q17: This is highly efficient, work-oriented place	3.74	0.93	4
Q27: There is an emphasis on “work before play”	3.71	1.06	4
Q37: Things will rarely get “put off till tomorrow	3.28	1.04	4
Q47: There’s a tendency for people to come to work late	2.77	1.12	3
Q57: There’s lot of time wasted because of inefficiencies	2.91	1.07	3
Q67: Getting a lot of work done is important to people	3.86	0.80	4

Q77: Employees work very hard.	3.88	1.02	4
Q87: People seem to be quite inefficient	3.71	0.95	4

Table 9 shows that, regarding the domain “physical comfort”, the highest score (mean±SD, 3.87±0.74) was recorded for the item “The lighting is extremely good”, and the lowest score (mean±SD, 2.88±1.13) was recorded for the item “Work space is awfully crowded”.

Table 24 : Average scores for the items describing the domain “Physical comfort”.

Dimensions and items	Mean	SD	Median
<i>Physical comfort</i>			
Q8: The colors and decorations make the place warm and cheerful to work in	3.84	1.01	4
Q18: The lighting is extremely good	3.87	0.74	4
Q28: The furniture is usually well arranged	3.75	0.95	4
Q38: The rooms are well ventilated	3.49	1.05	4
Q48: Work space is awfully crowded	2.88	1.13	3
Q58: It sometimes gets too hot	3.18	0.97	4
Q68: The place could stand some new interior decorations	3.57	0.87	4
Q78: The place has a stylish and modern appearance	3.67	1.03	4
Q88: It is rather drafty (disorganized) at times	2.94	1.02	3

Table 10 demonstrates that the highest score under the domain “Supervisor support” was recorded for the item “Supervisors usually compliment an employee who does something well” (mean±SD, 3.67±0.92), while the lowest scores (mean±SD, 2.92±1.04) were given for the item “Supervisors often criticize employees over minor things”.

Table 25 : Average scores for the items describing the domain “Supervisor support”.

Dimensions and items	Mean	SD	Median
<i>Supervisor support</i>			
Q9: Supervisors tend to talk down to employees	3.62	1.01	4
Q19: Supervisors really stand up for their people	3.66	0.97	4
Q29: Supervisors often criticize employees over minor things	2.92	1.04	3
Q39: Employees discuss their personal problems with supervisors	3.27	1.07	4
Q49: Supervisors tend to discourage criticisms from employees	2.94	1.03	3
Q59: Supervisors usually compliment an employee who does something well	3.67	0.92	4
Q69: Supervisors will usually give full credit to ideas contributed by employees	3.39	0.93	4
Q79: Supervisors expects far too much from employees	3.54	0.89	4
Q89: Employees will generally feel free to ask for a raise	3.40	1.05	4

Regarding the domain “Work pressure”, it was found that the highest average agreement score (mean±SD, 3.73±0.96) was recorded for the item “There are always deadlines to be met”, while the lowest agreement scores (mean±SD, 2.53±1.24) were given to the item “Nobody works too hard” (Table 11).

Table 26 : Average scores for the items describing the domain “Work pressure”.

Dimensions and items	Mean	SD	Median
<i>Work pressure</i>			
Q10: There are always deadlines to be met	3.73	0.96	4
Q20: There is constant pressure to keep working	3.46	0.90	4
Q30: It is very hard to keep up with your work load	2.90	1.02	3
Q40: People often have to work overtime to get their work done	3.38	1.02	4

Q50: There always seems to be an urgency about everything	3.42	0.90	4
Q60: There is no time pressure	3.05	1.00	4
Q70: People could not afford to relax	2.83	0.92	3
Q80: Nobody works too hard	2.53	1.24	3
Q90: You can take it easy and still get your work done	3.65	0.99	4

4. Response of the participants to the items of the creativity scale:

The items in **Table 12** describes the creativity climate, it was evident that all the items exceeded the mid-point “neutral” which corresponds to score “3”, which denotes agreement; the highest agreement scores (mean±SD, 3.78±0.99) were given to the item “Ambition/self-esteem”, while the lowest scores (mean±SD, 3.27±0.95) were recorded in the item “Organizational incentives to take risks”.

Table 27 : Average scores for the items describing “Creativity”.

Dimensions and items	Mean	SD	Median
<i>Creativity</i>			
Q91: Suggests new ways to achieve goals and objectives	3.57	1.05	4
Q92: Suggests new ways of performing work tasks	3.76	0.85	4
Q93: Exhibits creativity on the job when given the opportunity to do	3.54	1.12	
Q94: Encouraged to solve problems creatively in the organization	3.66	0.93	4
Q95: Generally, I can get the resources I need for my work	3.68	0.93	4
Q96: I have the freedom to decide how I am going to carry out my projects	3.65	0.87	4
Q97: My area of this organization is effective	3.69	0.99	4

Q98: Organizational incentives to take risks	3.27	0.95	4
Q99: Rewards and bonuses	3.48	1.12	4
Q100: Ambition/self-esteem	3.78	0.99	4

The overall creativity mean score accounted for (mean±SD, 3.61±0.75), **Table 13** illustrates the differences in creativity scores according to the characteristics of the study group. It shows that the creativity scores were significantly higher among middle aged workers (mean±SD, 3.83±0.61) if compared to older or younger workers $p<0.05$. On the other hand, it was found that the creativity score was higher among males (mean±SD, 3.61±0.79), workers who had postgraduate degree (mean±SD, 3.82±0.96), and those who had work experience for 3-7 years (mean±SD, 3.76±0.60), however these differences are not statistically significant $p>0.05$.

Table 28: Comparing creativity score among participants according to their characteristics.

Characteristics	Creativity scores	p
	mean±SD	
<i>Gender:</i>		
Male	3.61±0.79	0.907
Female	3.59±0.48	
<i>Age categories:</i>		
<30 years	3.57±0.72	0.045**
30-40 years	3.83±0.61	
41-50 years	3.13±1.10	
>50 years	3.61±0.37	
<i>Education level:</i>		
High school	3.61±0.81	0.097
University	3.66±0.67	
Postgraduate degree	2.82±0.96	
<i>Years of experience in current hotel:</i>		
<3 years	3.52±0.84	0.181

3-7 years	3.76±0.60
8-11 years	3.70±0.70
≥12 years	3.10±0.91

****Statistically significant**

Table 14 displays the correlation matrix for the association of the creativity with different domains describing the work environment. It was evident that there is significant positive correlation, that was strong for all domains including autonomy, clarity, managerial control, co-worker cohesion, innovation, involvement, task orientation, physical comfort, supervisor support except for the work pressure domain which showed weak positive correlation ($r=0.382$). The strongest correlation was observed for autonomy ($r=0.799$), managerial control ($r=0.785$) and supervisor support ($r=0.770$).

Table 29: Correlation between creativity and domains describing the work environment.

Domains of the work environment	Creativity scores	p
	Pearson correlation	
	coefficient	
<i>Domains:</i>		
Autonomy	.799**	<0.001
Clarity	.606**	<0.001
Managerial_control	.785**	<0.001
Co-worker cohesion	.623**	<0.001
Innovation	.615**	<0.001
Involvement	.750**	<0.001
Task orientation	.646**	<0.001
Physical_comfort	.633**	<0.001
Supervisor_support	.770**	<0.001
Work pressure	.382**	<0.001

****Statistically significant at $p < 0.001$**

In order to test whether the work environment factors significantly explain the differences in creativity level of employees, linear regression analyses were conducted. The results of the regression analysis displayed in **Table 15** showed that out of the domains describing the work environment, only four domains were found to be significant predictor for creativity, of these domains, three domains (autonomy, managerial control and supervisor support) were found to be strong positive predictors, while one domain (work pressure) as a significant negative predictor for creativity $p < 0.05$. The results showed also that $R^2 = .795$ which indicates that 79.5% of the changes in the creativity can be explained or attributed to the variation in these domains.

Table 30 : Regression analysis for the items of work environment predicting creativity.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.785	.318		-2.470	.016
Autonomy	.531	.136	.372	3.903	.000**
Clarity	-.100	.165	-.061	-.607	.545
Managerial control	.365	.130	.267	2.798	.006**
Co-worker cohesion	-.032	.134	-.022	-.236	.814
Innovation	-.064	.161	-.040	-.399	.691
Involvement	.199	.190	.124	1.048	.298
Task orientation	.142	.128	.092	1.108	.271
Physical comfort	.008	.147	.006	.055	.956
Supervisor support	.549	.135	.398	4.052	.000**
Work pressure	-.345	.099	-.261	-3.477	.001**

$R = .891$, $R^2 = .795$, $F = 31.741$, $P = 0.000$

****Statistically significant**

Discussion

The current study attempts to examine work environment factors which have an impact and fostering the creativity of the employees of Movenpick City Star Hotel in Jeddah. On the base of that, all the work factors were assessed for their contribution to creativity. One of the important contributions of this study is that there are few studies conducted regarding the relation between employee creativity and the factors of the Work Environment Scale (WES). This study may serve as a guideline for managers in terms of work environment and creativity to improve their organizations.

Based on the scores obtained from the results of work environment scale (Tables 2- 11), it is found that most of the items of the work environment factors; autonomy, clarity, managerial control, co-worker cohesion, innovation, involvement, task orientation, physical comfort, supervisor support and work pressure have exceeded the mid-point score “neutral”. This means that most of the items were an average or high agreement from the employees. Also, the results of creativity scale items showed a high agreement from the employees, as it scored above the neutral (Table 12). These findings have given an overview about which items has been satisfactory achieved by the organization and which items need to be supported to foster productivity and creativity, so they can consider in their future strategies.

The study findings also show that creativity score was various according to the characteristics of the study group (Table 13). Although it is not the central concern of our study, the results showed no significant difference found between the males and females. The latter was consistent with a study that revealed no significant difference was found between both genders in terms of creativity (80). Also, our findings showed that educational level is not an indicator of an individual’s creativity, however, a study by Simonton has

revealed a curvilinear (u- shaped) relations between education and creative performance (80). Among the less educated workers, an increase in education results in increase in the creative performance whereas among the more educated workers, an increase in education results in decrease in their creative performance (80). In addition to that, no significant difference was found between workers who have work experience 3-7 years and the other workers with no experience. However, the results revealed that middle-aged employees were significantly higher in their creativity score compared to the other age groups. This indicates that employees between 30-40 years old will be more creative.

According to the results of creativity scores showed in Table 14, there is a strong positive correlation found between all the work environments factors including autonomy, clarity, managerial control, co-worker cohesion, innovation, involvement, task orientation, physical comfort, supervisor support, and creativity which means that all the factors have a positive effect on the level of creativity of the employees. Thus, Hypothesis. 1a, Hypothesis. 1b, Hypothesis. 1c, Hypothesis. 1d, Hypothesis. 1e, Hypothesis. 1f, Hypothesis. 1g, Hypothesis. 1h, and Hypothesis. 1i are not rejected. However, work pressure factor was expected to positively influence creativity but turned out to be irrelevant. It showed weak positive correlation and a significant negative association with creativity, which means that Hypothesis. 1j is rejected. These findings were also supported with the statistical analysis of the multiple regression data showed in Table 15, four domains were found to be significant predictor for creativity. Three of these domains were found to be significantly positive predictors which are autonomy, supervisor support, and managerial control whereas work pressure showed significant negative predictor for creativity.

Although all the factors, except work pressure, are found to have positive impact on creativity, the effect is various between them. Autonomy, managerial control, and supervisor support were the most influential elements in relation to creativity. The factor autonomy is found to be the primary influential factor on creativity. It revealed a significant direct relationship with the creativity of employees. The result is in line with past study reporting that autonomy affects creativity in a positive manner (32). Moreover, it was approved that autonomy can increase intrinsic motivation, helping the workers to explore alternative pathways leading to novel and successful path (78). Thus, employees can be more creative when they have autonomy in achieving their goals. Managerial control and supervisor support elements were found to significantly support creativity in the second and third place, respectively. This was also proposed by other studies, as employees will be more creative if they have supervisor supporting them (10, 29). Therefore, if supervisors want creative employees, they should support their team work, appreciating their contribution, having good interaction with them and welling their new ideas (10). Moreover, co-worker cohesion factor is also found to be a positive increase of employees' creativity. This result is supported by another study which found that employees are more creative when they have encouraging co-workers in their teams (9). Another research also demonstrated the positive effect of co-worker cohesion on creativity (57).

It is assumed that better work place can increase and boost productivity and creativity. The present study revealed that physical environment is strongly related to the creativity level of employees. Similar to our findings, few studies have reported that physical environment is playing a major role in the employees' productivity (19, 23). A proper work place environment can increase the employee's performance as well as

decrease the number of absenteeism leading to more productivity (16). On the other hand, task orientation and involvement revealed very important elements regarding the creativity. Their importance is concluded in measuring the degree of emphasis on work efficiency and to extent to which employees are committed to their jobs. The latter factors are partly supported in the literature, however, a study reported that oriented and effective employees are a result of motivation management methods (36).

Despite all the positive effect of work factors that has been discussed above, work pressure factor was the only negative factor that affects the employees' creativity in a negative manner. This means that pressure and stress in the work can affect the employee's activity, performance and it will not support and provide the required time for them to increase their creativity level. This finding was also supported by other studies which revealed that work stress may result in employees' depression, illness and failure in meeting the projects deadlines, therefore, cannot reach any level of creativity (85, 17).

The findings of this current study indicated that factors of work environment are contributing towards creativity. In other words, it can strongly affect creativity and companies can take advantage of these results in improving their workplace and environment to achieve high level of creative employees as well as creative environment.

Conclusion

As many organizations are in a competition nowadays, creativity is playing a major element in today's business. Studies are still in early stage of assessing the importance of work environment factors and their

relation to employees' creativity. In this study, work environment dimensions were investigated for their impact on creativity. The findings of this study revealed that all the factors including autonomy, clarity, managerial control, co-worker cohesion, innovation, involvement, task orientation, physical comfort, and supervisor support are found to be positively affecting the employees' creativity. However, work pressure instead shows a negative support for creativity compared to the other factors. Also, it was evident that autonomy, managerial control, and supervisor support have a direct strong relationship with creativity level of the employees in a greatest impact revealing that organization should pay attention to these important elements in their future plans. Lastly, from the above findings, it is essential to encourage the creativity and innovation of employees at different levels of management in the organizations which accordingly foster their job satisfaction and loyalty, respectively.

Study field

The field of this study was focusing on the work environment factors that are contributing to creativity in the organizations and how to direct the management administrations toward fostering this concept in their organizations.

Recommendations

The results obtained from this study can be a helpful guideline for the organizations and companies aiming to have creativity within the organization. It also recommends ways to improve the management of

work environment for creative organizations. According the discussion of the results,

the researchers recommend the following points:

1. Organizations should provide all the needs that enable the employees in various departments to carry their work in an efficient, effective and creative manner.
2. Support the employees' new ideas when they are brilliant and applicable.
3. Supervisors must be supportive and listen to the employees' needs and help them in accomplish their goals.
4. Work pressure factor appeared very crucial element that affect creativity, therefore, it would be better to take it in consideration when creative performance is required.
5. Paying attention to managerial control element in the companies, as it showed its importance for employees to increase their creativity level.

Future research may study other dimensions and their impact on creativity. Also, a follow up study further analysis cultural aspect could shed new light to the results by extending the study sample to include all Movenpick hotels' branches in Kingdom of Saudi Arabia.

Research limits

The limitation of this study relates to the difficulties in involving all of the employees of Movenpick hotels' branches in KSA not only the employees in Movenpick City Star hotel in Jeddah.

References

1. Abbas, Q. and Yaqoob, S. (2009), Effect of leadership development on employee performance in Pakistan, *Pakistan Economic and Social Review*, (47), 269-292.
2. Abu Mohammed, E. (2022). The Work Environment And Its Impact On Administrative Creativity: A Case Study Of Sudan University Of Science And Technology [Articles Scientifiques Et Publications, Centre Universitaire De Barika].
3. Alim, O. (2002). The Effect of Training and Development Opportunities and Physical Workplace Conditions on Job Satisfaction: An Application in Telecommunication Sector. Unpublished Master Thesis. İstanbul: Marmara University, Institute of Social Sciences.
4. Amabile, T.M. (1983), "The social psychology of creativity: a componential conceptualization", *Journal of Personality and Social Psychology*, Vol. 45 No. 2, pp. 357-377.
5. Amabile, T.M. (1998). How to kill creativity. *Harvard Business Review*, 76(5), 76-87.
6. Amabile, T.M. (2012), *Componential Theory of Creativity*, Harvard Business School, Boston.
7. Amabile, T.M. & Conti, R. (1999). Changes in the Work Environment for Creativity during Downsizing. *Academy of Management Journal*, 42(6), 630-640.
8. Amabile, T.M.; Barsade, S.G.; Mueller, J.S. & Staw, B.M. (2005). Affect and Creativity at Work. *Administrative Science Quarterly*, 50(3), 367-403.
9. Amabile, T.M.; Conti, R.; Coon, H.; Lazenby, J. & Herron, M. (1996). Assessing the work environment for creativity. *Academy of Management Journal*, 39(5), 1154-1185.
10. Amabile, T.M.; Schatzel, E.A.; Moneta, G.B. & Kramer, S.T. (2004). Leader Behaviors and the Work Environment for Creativity: Perceived Leader Support. *Leadership Quarterly*, 15(1), 5-32.

11. Amabile, T.M.T., Burnside, R.M. and Gyskiewicz, S.S. (2010), User's Manual for KEYS, Assessing the Climate for Creativity: A Survey from the Center for Creative Leadership, Center for Creative Leadership, Greensboro, North Carolina.
12. Anderson, N.R & West, M.A (1998). Measuring climate for workgroup innovation: development and validation of the team climate inventory. *Journal of Organizational Behavior*, 19(3), 235-258.
13. Antonites, A.J. (2003). An Action learning approach to entrepreneurial creativity, innovation and opportunity finding. Unpublished Phd Thesis. Pretoria: University of Pretoria. (<http://upetd.up.ac.za/thesis/available/etd06282004-124700>). [02.04.2007].
14. Aselage, J. & Eisenberger, R. (2003). Perceived Organizational Support and Psychological Contracts: A Theoretical Integration. *Journal of Organizational Behavior*, 24(5), 491-509.
15. Birdi, K., Leach, D., & Magadley, W. (2016). The relationship of individual capabilities and environmental support with different facets of designers' innovative behavior. *Journal of Product Innovation Management*, 33(1), 19–35. <https://doi.org/10.1111/jpim.12250>
16. Boles, M., Pelletier, B. & Lynch, W. (2004). The relationship between health risks and work productivity. *Journal of Occupational and Environment Medicine*, 46(7), 737-745.
17. Cady, S.H. & Valentine, J. (1999). Team innovation and perceptions of consideration What difference does diversity make? *Small Group Research*, 30(6), 730-750.
18. Carless, S.A. & De Paola, C. (2000). The Measurement of Cohesion in Work Teams. *Small Group Research*, 31(1), 71-88.
19. Carnevale, D. G. (1992), Physical settings of work. *Public Productivity and Management Review*, (15), 423-436.

20. Ceylan, A. & Savi, F.Z. (2003). Örgütsel Yaratıcılığa Etki Eden Faktörler
Üzerine Bir Araştırma. İstanbul Üniversitesi Siyasal Bilgiler Fakültesi Dergisi, 17(6), 151-175.
21. Chang, A. & Bordia, P. (2001). A Multidimensional Approach to the Group Cohesion–Group
Performance Relationship. *Small Group Research*, 32(4), 379-405.
22. Choi, J.N. (2007). Group composition and employee creative behaviour in a Korean electronics
company: Distinct effects of relational demography and group diversity. *Journal of Occupational and
Organizational Psychology*, 9(2), 213-234.
23. Clements-Croome, D.J., (1997). Specifying Indoor Climate in book *Naturally Ventilated Buildings*.
Spon.
24. Devett, T. (2004). Creativity and Strategic Management: Individual and Group Considerations
Concerning Decision Alternatives in the Top Management Teams. *Journal of Managerial Psychology*,
19(2), 156-169.
25. DiLiello, T.C. & Houghton, J.D. (2006). Maximizing organizational leadership capacity for the future:
Toward a model of self-leadership, innovation and creativity. *Journal of Managerial Psychology*, 21(4),
319-337.
26. Dul, J., & Ceylan, C. (2011). Work environments for employee creativity. *Ergonomics*, 54(1), 1220.
27. Dunbar, K. (1997). How scientists think: On-line creativity and conceptual change in science. (Ed.:
Ward, T.B.; Smith, S.M. & Vaid, J.). *Creative thought: An investigation of conceptual structures and
processes*. Washington, DC: American Psychological Association, 461–493.
28. Egan, T.M. (2005). Factors Influencing Individual Creativity in the Workplace: An Examination of
Suantitative Empirical Research. *Advances in Developing Human Resources*, 7(2), 160-181.

29. Eisenberger, R.; Aselage, J.; Sucharski, I.L. & Jones, J.R. (2004). Perceived organizational support. (Eds.: Coyle- Shapiro, J.; Shore, L.; Taylor, S. & Tetrick, L.). The employment relationship: Examining psychological and contextual perspectives. New York: Oxford University Press.
30. Elankumaran, S. (2004). Personality, Organizational Climate and Job Involvement: An Empirical Study. *Journal of Human Values*, 10(2), 117-130.
31. Elywood, J. (1999), Models for productions and operation Design. Berkeley University of California Press.
32. Eren, E. & Gündüz, H. (2002). İş Çevresinin Yaratıcılık Üzerindeki Etkileri ve Bir Araştırma. *Doğuş Üniversitesi Dergisi*, 8(3), 65-84.
33. Ferreira, J., Coelho, A., & Moutinho, L. (2020). Dynamic capabilities, creativity and innovation capability and their impact on competitive advantage and firm performance: The moderating role of entrepreneurial orientation. *Technovation*, 92–93(February 2017), 1. <https://doi.org/10.1016/j.technovation.2018.11.004>
34. Ford, C.M. (1996). A Theory of Individual Creative Action in Multiple Social Domains. *Academy of Management Review*, 21(4), 1112-1142.
35. Fuchs, M., Fossgard, K., Stensland, S., & Chekalina, T. (2021). Creativity and innovation in nature-based tourism: a critical reflection and empirical assessment. In *Nordic perspectives on nature-based tourism* (pp. 175–193). Edward Elgar Publishing.
36. Gardner and Lambert (1972). *Attitudes and Motivation in Second Language Learning*. Newbury House Publisher.

37. Gilson, L.L.; Mathieu, J.E.; Shalley, C.E. & Ruddy, T.M. (2005). Creativity and standardization: Complementary or conflicting drivers of team effectiveness? *Academy of Management Journal*, 48(3), 521-531.
38. Greenhaus J, Parasuraman S (1994), "Work-family conflict, social support and well-being", in Davidson, M. and Burke, R. (Eds), *Women in Management: Current Research Issues*, Paul Chapman, London, 213-29.
39. Gu, Q., Tang, T.L.P. and Jiang, W. (2015), "Does moral leadership enhance employee creativity? Employee identification with leader and leader-Member Exchange (LMX) in the chinese context", *Journal of Business Ethics*, Vol. 126 No. 3, pp. 513-529.
40. Guzman, M.J. (2007). *The Mediating Role of Motivation and Job Satisfaction in Work Environment-Outcome Relationships*. Unpublished Phd Thesis. Los Angeles: University of Central Florida.
41. Hafer, J.C & Martin, T.N. (2006). *Job Involvement or Affective Commitment: A Sensitivity Analysis Study of Apathetic Employee Mobility*. *Journal of Behavioral and Applied Management*, 5(2), 88-101.
42. Hallberg, U.E. & Schaufeli, W.B. (2006). Same Same But Different? Can Work Engagement Be Discriminated from Job Involvement and Organizational Commitment? *European Psychologist*, 11(2), 119-127.
43. Heye, D. (2006). Creativity and Innovation. *Business Information Review*, 6(2), 252-259.
44. Isaksen, S.G.; Puccio, G.J. & Treffinger, D.J. (1993). An ecological approach to creativity research: Profiling for Creative Problem Solving. *The Journal of Creative Behaviour*, 21(3), 149-170.
45. Ivcevic, Z., Moeller, J., Menges, J., & Brackett, M. (2021). Supervisor emotionally intelligent behavior and employee creativity. *The Journal of Creative Behavior*, 55(1), 79–91.

46. Jafri, M.H., Dem, C. and Choden, S. (2016), "Emotional intelligence and employee creativity: Moderating role of proactive personality and organizational climate", *Business Perspectives and Research*, Vol. 4 No. 1, pp. 54-66.
47. Jiang, W., Gu, Q. and Tang, T.L.P. (2017), "Do victims of supervisor bullying suffer from poor creativity? Social cognitive and social comparison perspectives", *Journal of Business Ethics*, pp. 1-20.
48. Jyoti, J. and Dev, M. (2015), "The impact of transformational leadership on employee creativity: the role of learning orientation", *Journal of Asia Business Studies*, Vol. 9 No. 1, pp. 78-98.
49. Kacmar, M.; Zivnuska, S. & White, C.D. (2007). Control and exchange: The impact of work environment on the work effort of low relationship quality employees. *The Leadership Quarterly*, 18(1), 69-84.
50. Khatib, M. (2002). A Proposal for the Future Work Environment. Unpublished Master Thesis. Milwaukee: Jordan University for Women.
51. Koester, N. & Burnside, R.M. (1992). Climate for creativity: what to measure? What to say about it? (Eds.: Gyskiewicz, S.S. & Hills, D.A.). *Readings in Innovation*. Center for Creative Leadership, 69-77.
52. Kršlak, S. Š, & Ljevo, N. (2021). Organizational creativity in the function of improving the competitive advantage of tourism companies in Bosnia and Herzegovina. *Journal of Advanced Research in Economics and Administrative Sciences*, 2(1), 81–91. <https://doi.org/10.47631/jareas.v2i1.215>
53. Kwasniewska, J. & Necka, E. (2004). Perception of the Climate for Creativity in the Workplace: the Role of the Level in the Organization and Gender. *Creativity and Innovation Management*, 13(3), 187-196.
54. Lawler, E.E. III. & Hall, D.T. (1970). Relationship of job characteristics to job involvement, satisfaction, and intrinsic motivation. *Journal of Applied Psychology*, 54(40), 305- 312.

55. Lee, C., Hallak, R., & Sardeshmukh, S. R. (2019). Creativity and innovation in the restaurant sector: Supply-side processes and barriers to implementation. *Tourism Management Perspectives*, 31(March), 54–62. <https://doi.org/10.1016/j.tmp.2019.03.011>
56. Levering, R. (2007). Creating a Great Place To Work: Why Is It So Important and How It Is. (Done.http://resources.greatplacetowork.com/article/pdf/levering_web.pdf). [04.05.2008].
57. McIntyre, F.S.; Hite, R.E. & Rickard, M.K. (2003). Individual Characteristics and Creativity in the Marketing Classroom: Exploratory Insights. *Journal of Marketing Education*, 25(2), 143-149.
58. McLean, L.D. (2005). Organizational Culture's Influence on Creativity and Innovation: A Review of the Literature and Implications for Human Resource Development. *Advances in Developing Human Resources*, 7(2), 226-246.
59. McLeod, P.L.; Lobel, S.A. & Cox, T.H. (1996). Ethnic Diversity and Creativity in Small Groups. *Small Group Research*, 27(2), 248-263.
60. Moos, R. H. (1994). *Work Environment Scale Manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.
61. Mostafa, M. (2005). Factors Affecting Organisational Creativity and Innovativeness in Egyptian Business Organisations: An Empirical Investigation. *Journal of Management Development*, 24(1), 7-33.
62. Muñoz-Pascual, L. and Galende, J. (2017), "The impact of knowledge and motivation management on creativity: Employees of innovative spanish companies", *Employee Relations*, Vol. 39 No. 5, pp. 732-752.

63. Nachmias, C.F. & Nachmias, D. (1996). *Research Methods in the Social Sciences*. 5th Ed. London:St. Martin's Press.
64. Noah, Y. and M. Steve (2012), *Work Environment and Job Attitude among Employees in a Nigerian Work Organization*, *Journal of Sustainable Society* 1(2): 36-43.
65. Paulus, P.B. (2000). *Groups, Teams and Creativity: The Creative Potential Of Idea-generating Groups*. *Applied Psychology: An International Review*, 13(4), 237-262.
66. Pirola-Merlo, A.P. & Mann, L. (2004). *The Relationship between Individual Creativity and Team Creativity: Aggregating Across People and Time*. *Journal of Organizational Behavior*, 25(2), 235-257.
67. Politis J. D. (2004). *Transformational and Transactional Leadership Predictors of the 'Stimulant' Determinants to Creativity in Organizational Work Environments*. *The Electronic Journal of Knowledge Management*, 2(2), 23-34.
68. Pretorius, M.; Millard, S.M. & Kruger, M.E.(2005). *Creativity, innovation and implementation: Management experience, venture size, life cycle stage, race and gender as moderators*. *South African Journal of Business Management*, 36(4), 55-68
69. Ramos, M. A. W., Figueiredo, P. S., & Pereira-Guizzo, C. (2018). *Antecedents of innovation in industry: The impact of work environment factors on creative performance*. *Innovation & Management Review*, 15(3), 269-285.
70. Ramos, M. A. W., Figueiredo, P. S., and Pereira-Guizzo, C. (2017). *The impact of work environment factors on creative performance*. *Innovation & Management Review*. Vol. 15 No. 3, 2018. pp. 269-285.
71. Reiter-Palmon, R. & Illies, J.J. (2004). *Leadership and creativity: understanding leadership from a creative problem-solving perspective*. *Leadership Quarterly*, 14(4) 15, 55-78

72. Rhoades, L. & Eisenberger, R. (2002). Perceived Organizational Support: A Review of the Literature. *Journal of Applied Psychology*, 87(4), 698–714.
73. Rodríguez-Sánchez, A.M., Devloo, T., Rico, R., Salanova, M. and Anseel, F. (2017), "What makes creative teams tick? Cohesion, engagement, and performance across creativity tasks: a three- wave study", *Group & Organization Management*, Vol. 42 No. 4, pp. 521-547.
74. Rose, J. & Schelewa-Davies, D. (1997). The Relationship between Staff Stress and Team Climate in Residential Services. *Journal of Learning Disabilities for Nursing, Health and Social Care*, 1(1), 19-24.
75. Ryhammar, L. & Brolin, C. (1999). Creativity research: Historical considerations and main lines of development. *Scandinavian Journal of Educational Research*, 43(3), 259- 273.
76. Sabir, M. S., Iqbal, J. J., Rehman, K., Shah, K. A. and Yameen, M., (2012), Impact of corporate ethical values on ethical leadership and employee performance. *International Journal of Business and Social Science*, (3), 163-171.
77. Shalley, C. E., Gilson, L. L., & Blum, T. C. (2000). Matching creativity requirements and the work environment: Effects on satisfaction and intentions to leave. *Academy of Management Journal*, 43(2), 215-223.
78. Shalley, C. E., Zhou, J., & Oldham, G. R. (2004). The effects of personal and contextual characteristics on creativity: Where should we go from here? *Journal of Management*, 30(6), 933–958. <https://doi.org/10.1016/j.jm.2004.06.007>.
79. Shapcott, K.M.; Carron, A. V.; Burke, S.M.; Bradshaw, M. & Estabrooks, P.A. (2006). Member Diversity and Cohesion and Performance in Walking Groups. *Small Group Research*, 37(6), 701-720.

80. Simonton, D K, (1983). Formal Education, Eminence and Dogmatism: The Curvilinear Relationship. *Journal of Creative Behavior*, 17(3), 149-162.
81. Stokols, D., Clitheroe, C. and Zmuidzinas, M. (2002), "Qualities of work environments that promote perceived support for creativity", *Creativity Research Journal*, Vol. 14 No. 2, pp. 137-147.
82. Sullivan, P.J. & Windsor, Feltz, D.L. (2001). The Relationship between Intrateam Conflict and Cohesion within Hockey Teams. *Small Group Research*, 32(3), 342- 355.
83. Suvagondha, P. (2003). Relationships among Creative Style Preference, Job Satisfaction, and Work Environment. Unpublished Phd Thesis. San Diego: Alliant International University.
84. Taiwo, A. S. (2009), The influence of work environment on workers' productivity: a case of selected oil and gas industry in Lagos, Nigeria, *African Journal of Business Management*, (4),299-307.
85. Üniversitesi, M., & Bölümü, İ.İ. (2011). THE EXAMINATION OF THE RELATIONSHIP BETWEEN CREATIVITY AND WORK ENVIRONMENT FACTORS WITH A RESEARCH IN WHITE-GOODS SECTOR IN TURKEY.
86. West, M.A. (2005) Sparkling Fountains or Stagnant Ponds: An Integrative Model of Creativity and Innovation Implementation in Work Groups. *Applied Psychology: An International Review*, 51(3), 355-424.
87. Westerman, J.W. & Yamamura, J.H. (2007). Generational preferences for work environment fit: effects on employee outcomes. *Career Development International*, 12(2), 150- 161.
88. Williams, M. (2000). *The War for TALENT: Getting the Best from the Best*. London, UK: CromwellPress.
89. Wright, B.E. & Davis, B.S. (2003). Job Satisfaction in the Public Sector: The Role of the Work Environment. *The American Review of Public Administration*, 33(1), 70-90

90. Yahyagil, M.Y. (2005). Organizational Creativity: An Empirical Exploration,
and a Guide for Practitioners. İstanbul University Journal of Business Faculty, 35(2), 81- 110.

Appendix

Questionnaire

Section A: Demographic Characteristics

Please tick (✓) to the appropriate choice

1. Gender: Male ☐ Female ☐
2. Age: 21-30 years old ☐ 31-40 years old ☐ 41-50 years old ☐
51 years old & over ☐
3. Education: High school ☐ College ☐ University ☐
Master Degree or higher ☐
4. Current company experience: Less than 3 years ☐ 4-7 years ☐ 8-11 years ☐
12 -20 years ☐ 21 years & above ☐
5. Department: Executive office ☐ Finance ☐ Human Resources ☐
Sales & Marketing ☐ Engineering ☐ Reservation ☐
Information Technology ☐ Security ☐ Housekeeping ☐
Food & Beverage ☐ Front office ☐ Kitchen ☐ Steward ☐

Section B: Questionnaire

WORK ENVIRONMENT FACTORS					
No.	Factors / Dimensions	1 Strongly disagree	2 Disagree	3 Natural	4 Agree
I. Autonomy					
BAI1	Q1: Employees are encouraged to make their own decisions				
BAI11	Q11: Employees have a great deal of freedom to do as they like				
BAI21	Q21: Employees function fairly independently of supervisors	Q			
BAI31	Q31: People can use their own initiative to do things				
BAI41	Q41: Supervisors encourage employees to rely on themselves when a problem arises				
BAI51	Q51: Few employees have any important responsibilities				
BAI61	Q61: Employees generally do not try to be unique and different				
BAI71	Q71: Employees are encouraged to learn things even if they are not directly related to the job				
BAI81	Q81: Supervisors meet with employees regularly to discuss their future work goals				
II. Clarity					
BCI12	Q2: The responsibilities of supervisors are clearly defined				
BCI112	Q12: The details of assigned jobs are generally explained to employees				
BCI22	Q22: Things are sometimes pretty disorganized				
BCI32	Q32: Fringe benefits are fully explained to employees				
BCI42	Q42: Activities are well planned				
BCI52	Q52: Employees are often confused about exactly what they are supposed to be				
BCI62	Q62: Rules and regulations will be somewhat vague and ambiguous				
BCI72	Q72: Rules and policies are constantly changing				
BCI82	Q82: Supervisors encourage employees to be neat and orderly				
III. Managerial Control					
BMC113	Q3: Supervisors are always checking on employees and supervise them very closely				
BMC1113	Q13: Supervisors keep a rather close watch on employees				
BMC123	Q23: Employees are expected to conform rather strictly to the rules and customs				
BMC133	Q33: Rules and regulations are pretty well enforced				
BMC143	Q43: People are expected to follow set rules in doing their work				
BMC153	Q53: People can wear wild looking clothing while on the job if they want				
BMC163	Q63: Supervisors do not often give in to employee pressure				
BMC173	Q73: There's a strict emphasis on following policies and regulations				
BMI183	Q83: If employee comes in late, he or she can make it up by staying late				
IV. Coworker Cohesion					
BCCIV4	Q4: Employees often eat lunch together				
BCCIV14	Q14: People take a personal interest in each other				

BCCIV24	Q24: Employees often talk to each other about their personal problems				
BCCIV34	Q34: Often people make trouble by talking behind others backs				
BCCIV44	Q44: Employees rarely do things together after work				
BCCIV54	Q54: People go out their way to help a new employee feel comfortable				
BCCIV64	Q64: The atmosphere is somewhat impersonal				
BCCIV74	Q74: People are generally frank about how they feel				
BCCIV84	Q84: Employees who differ greatly from the others in the organization don't get on well				
	V. Innovation				
BIV5	Q5: New and different ideas are always being tried out				
BIV15	Q15: This place would be one of the first to try out a new idea				
BIV25	Q25: New approaches to things are rarely tried				
BIV35	Q35: There is fresh, novel atmosphere about the place				
BIV45	Q45: Doing things in a different way is valued				
BIV55	Q55: The same methods have been used for quite a long time				
BIV65	Q65: Things always seem to be changing				
BIV75	Q75: Variety and change are not particularly important				
BIV85	Q85: Things tend to stay just about the same				
	VI. Involvement				
BIV16	Q6: It is hard to get people to do any extra work				
BIV116	Q16: The work is usually very interesting				
BIV126	Q26: People put quite a lot of effort into what they do				
BIV136	Q36: Few people ever volunteer				
BIV146	Q46: People will seem to take pride in the organization				
BIV156	Q56: The work is really challenging				
BIV166	Q66: There's not much group spirit				
BIV176	Q76: A lot of people seem to be just putting in time				
BIV186	Q86: It is quite a lively place				
	VII. Task Orientation				
BTОВII7	Q7: People pay a lot of attention to getting work done				
BTОВII17	Q17: This is highly efficient, work-oriented place				
BTОВII27	Q27: There is an emphasis on "work before play"				
BTОВII37	Q37: Things will rarely get "put off till tomorrow"				
BTОВII47	Q47: There's a tendency for people to come to work late				
BTОВII57	Q57: There's lot of time wasted because of inefficiencies				
BTОВII67	Q67: Getting a lot of work done is important to people				
BTОВII77	Q77: Employees work very hard.				
BTОВII87	Q87: People seem to be quite inefficient				
	VIII. Physical Comfort				
BPCVIII8	Q8: The colors and decorations make the place warm and cheerful to work in				
3PCVIII18	Q18: The lighting is extremely good				
3PCVIII28	Q28: The furniture is usually well arranged				
3PCVIII38	Q38: The rooms are well ventilated				
3PCVIII48	Q48: Work space is awfully crowded				
3PCVIII58	Q58: It sometimes gets too hot				
3PCVIII68	Q68: The place could stand some new interior decorations				
3PCVIII78	Q78: The place has a stylish and modern appearance				

PCVIII88	Q88: It is rather drafty (disorganized) at times				
	IX. Supervisor Support				
BSSIX9	Q9: Supervisors tend to talk down to employees				
BSSIX19	Q19: Supervisors really stand up for their people				
BSSIX29	Q29: Supervisors often criticize employees over minor things				
BSSIX39	Q39: Employees discuss their personal problems with supervisors				
BSSIX49	Q49: Supervisors tend to discourage criticisms from employees				
BSSIX59	Q59: Supervisors usually compliment an employee who does something well				
BSSIX69	Q69: Supervisors will usually give full credit to ideas contributed by employees				
BSSIX79	Q79: Supervisors expects far too much from employees				
BSSIX89	Q89: Employees will generally feel free to ask for a raise				
	X. Work Pressure				
BWPX10	Q10: There are always deadlines to be met				
BWPX20	Q20: There is constant pressure to keep working				
BWPX30	Q30: It is very hard to keep up with your work load				
BWPX40	Q40: People often have to work overtime to get their work done				
BWPX50	Q50: There always seems to be an urgency about everything				
BWPX60	Q60: There is no time pressure				
BWPX70	Q70: People could not afford to relax				
BWPX80	Q80: Nobody works too hard				
BWPX90	Q90: You can take it easy and still get your work done				
	XI. Creativity				
BCXI91	Q91: Suggests new ways to achieve goals and objectives				
BCXI92	Q92: Suggests new ways of performing work tasks				
BCXI93	Q93: Exhibits creativity on the job when given the opportunity to				
BCXI94	Q94: Encouraged to solve problems creatively in the organization				
BCXI95	Q95: Generally, I can get the resources I need for my work				
BCXI96	Q96: I have the freedom to decide how I am going to carry out my projects				
BCXI97	Q97: My area of this organization is effective				
BCXI98	Q98: Organizational incentives to take risks				
BCXI99	Q99: Rewards and bonuses				
BCXI100	Q100: Ambition/self-esteem				