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Evaluating The Impact Of Innovation Organization On Team Entrepreneurial Learning In Erbil Polytechnic University

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Abstract

The non-profit Technical Colleges of Erbil seek to develop technically proficient people across various industries in response to the demands of innovation. The term "innovation organization" is used by academics to characterize teams that combine their knowledge in a particular area, collaborate to accomplish shared objectives, and produce exceptional results by cultivating a positive team atmosphere and producing capable leaders. At the Technical Colleges of Erbil, team entrepreneurial learning is defined by a culture of never-ending commitment to leadership, collaboration, open communication, shared goals, and the use of established group operating rules to resolve conflicts. A lack of trust among its members also characterizes the team.

A quantitative research method was used to generate the data, and a questionnaire was created. According to the data, employees and staff of technical colleges of Erbil use various resources to enrich their innovation organization.

The data also show that with a strong standardized beta ($\beta = 0.426$) and an unstandardized coefficient ($B = 0.404$, $p < 0.001$), the results show that Innovation Organization has a statistically significant and positive effect on Organizations Outcome, indicating that it is a strong predictor of good outcomes. With $B = 0.121$, $\beta = 0.208$, and $p < 0.05$, Team Entrepreneurial Learning likewise demonstrates a noteworthy favorable impact on Organizations Outcome. These results demonstrate that Innovation Organization and Team Entrepreneurial Learning both play a major role in forecasting how employees' talents, morals, and skills will advance. Hypotheses H1b, H2a, H2b, H3b, and H4 are therefore strongly supported by these findings.

Keyword: *Innovation Organization, Team Entrepreneurial learning, Organizations Outcome.*

1. INTRODUCTION

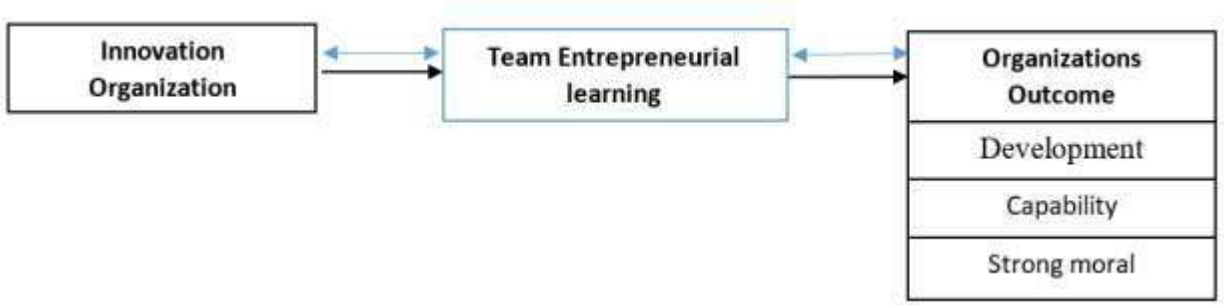
In order to meet the demands of innovation, the non-profit Technical Colleges of Erbil aim to produce technically skilled professionals in many sectors. Academics use the phrase "Innovation Organization" to describe groups that pool their expertise in a certain field, work together to achieve common goals, and achieve outstanding outcomes by fostering a supportive team environment and developing strong leaders. Team Entrepreneurial learning at the Technical Colleges of Erbil is characterized by a lack of trust among its members and a culture of unwavering commitment to shared goals, leadership, collaboration, open communication, and the resolution of conflicts via the use of established group operating rules. At its core, this theory is about relationship building at Technical Colleges of Erbil. It stresses the need of departments and the institution working together by finding common values and behaviors.

Competence, organization, and alignment with College strategy are three essential elements of effective clerical teams. Technical Colleges of Erbil uses Team Entrepreneurial learning to create productive work environments, to determine if management is characterized by gross misconduct of Directors, faculty, staff, and administration, and low academic performance among students, and to structure communications so as to strengthen particular behaviors. Clerical collaboration may have a direct influence on instructional support, according to the research. The strategic planning process at a college may serve as the basis for a team's lesson and activity plans as they construct a project plan. It makes it simpler to recognize the measures you need to take in the near future to attain your long-term objectives. The Research Problems: It was envisaged that the Problems of Technical Colleges of Erbil system lock of would be governed such that the Innovation Organization and Team Entrepreneurial learning would carry out their obligations as stipulated. These initiatives will help the Technical Colleges of Erbil as a whole to boost the academic performance of its teachers, staff, and administration via the development of knowledge, the forging of strong morals and talents, and the building of human connections and motivation. Deficit in Creativity Not only is there a lack of long-term planning and direction at the Technical Colleges of Erbil, but there are also other theoretical issues with Team Entrepreneurial learning, abilities, ethics, and competency. Hence, it's not clear. Since everything up to this point has failed, the investigator is left wondering what further has to be done. The Research questions: Does reconcile the influence in building the relationship between Innovation Organization and Team Entrepreneurial learning? Does the impact of Organizations Outcome on Innovation Organization? Does the correlation between Innovation Organization, and Organizations Outcome? Does the Innovation Organization mediator by the Team Entrepreneurial learning?

The Research purpose: Every member of the campus community has to be familiar with Innovation Organization and rally around it. Innovation Organizations are groups of people working together toward a common goal. The innovation organization's mission statements, which are directly related to the responsibilities of Erbil Technical Colleges and other departments, emphasize the need to foster competence, integrity, and capability. Because of their unflinching focus on the work at hand, they frequently act as examples for the collegiate community. Team entrepreneurial learning is enhanced when roles are clearly outlined. Recently, cultism has been rampant in Erbil's Technical Colleges, affecting departments like people, competency, moral fortitude, and skill development. The research Objectives: To express the influence in building the relationship between Innovation Organization and Team Entrepreneurial learning. To clarify the impact of Organizations Outcome on Innovation Organization. To determine the correlation between Innovation Organization, and Organizations Outcome. To display that Innovation Organization mediator by the Team Entrepreneurial learning.

The Research Importance: Improvement of Innovation Organization and Team Entrepreneurial learning, in Technical Colleges of Erbil. The Innovation Organization fosters team entrepreneurship through learning, growth, strong morals, and competence. Administration morale refers to the overall outlook, skill development, and the capability and confidence that faculty, staff, and administration experience in their work. Additionally, Human Resources can assist a newly formed team in developing a clear plan to focus on appropriate goals and objectives while considering the best ways to achieve them.

Research Model:



Innovation Organization, Team Entrepreneurial learning, Organizations Outcome; Develop skills, Strong moral, Capability

Hypothesis

Hypothesis are adequate developed in order to investigate and examine the core research about the effect of Innovation Organization, Team Entrepreneurial learning, and Organizations Outcome, climate in Technical Colleges of Erbil the following are the hypotheses formed to observe and study the main aspects of the present research:

- **Hypothesis 1:** The independent Innovation Organization, is positively **relationship** between with the mediating variable Team Entrepreneurial learning, (H1a). And dependent variable represented by the Organizations Outcome (develop skills, strong moral, and capability, (H1b).

- **Hypothesis 2:** The dependent Organizations Outcome (develop skills, strong moral, and capability), are positively **relationship** between with mediating variable Team Entrepreneurial learning, (H2a). And the independent variable represented by the Innovation Organization, (H2b).

- **Hypothesis 3:** The independent variable there is an **influence** of Innovation Organization, and it is possible to predict the increase in the levels of the mediating variable Team Entrepreneurial learning, (H3a). And There is an **influence** of Innovation Organization, it is possible to predict the dependent Organizations Outcome (develop skills, strong moral, and capability, (H3b).

- **Hypothesis 4:** The mediating variable **there is an influence** represented by the Team Entrepreneurial learning, contributes to predicting the increase in the levels of the Organizations Outcome variable represented by the (develop skills, strong moral, and capability).

2. LITERATURE REVIEW

Innovation Organization

By instituting an innovation Organization plan, management may tap into employees' creativity and utilize it to propel the firm forward. Some of the tools that are commonly used include the TRIZ and Phase-gate models, as well as others for brainstorming, prototyping, managing projects, ideation, product lifecycle, product line planning, and portfolio Organization. It is possible to see the process as a developing integration of the organization, technology, and market through repeating cycles of the four phases: search, selection, implementation, and capture. Various factors can either push or pull an innovation's progress.

Every pushed process is built upon technology, whether it's currently in use or has just been established. The objective is to find lucrative applications for the existing technology. A pulled procedure, on the other hand, seeks to fill up service holes for current customers. Both methods need an understanding of the target audience and the problems they want to address. By bringing together workers, users, and marketers in multi-dimensional development teams, we can handle both challenges simultaneously. Maximilian von Zedtwitz, Roman Boutellier, and Oliver Gassmann released their results in the year 2000.In the 1930s, Austrian economist Joseph Schumpeter laid the theoretical groundwork for what is today known as "innovation Organization" (IM) by recognizing the relevance of innovation to economic success. The connection between innovation and Schumpeter's theories is explored in this 2018 book. His seminal work "Capitalism, Socialism, and Democracy" laid the groundwork for the concept of creative destruction. Assisting companies in capitalizing on possibilities and launching new ideas, processes, or products economically is the main objective of innovation Organization. Creative problem-solving is the foundation of innovation Organization, which ultimately leads to an upgrade to a current service or product. Two steps follow each other in the creative process: inspiration and imitation. Benoît Godin (2008) is the author.

While innovation is critical, it is not sufficient to ensure a company's continued existence or expansion. Harvard Business Review published this paper in 2014. The most straightforward ways for a corporation to innovate are through technological advancements, social innovations, and disruptive innovations. On the other hand, innovation management is vital for promoting institutional change and new kinds of technological advancement. An organization's culture of creative problem-solving is one of the primary goals of innovation management. Here we can go to: The authors of the article are Rickne (2012), Laestadius (2012), and Etzkowitz (2012). As "the launch pad for business ventures," this welcoming environment would encourage increased cooperation between different organizations. If innovation initiatives are to be successful, senior management must provide clear direction, validation, and support. According to Stanley Kam Sing Wong (2012).

One way that companies might think about improving their performance in the long run is through competency-based management. Providing a methodical and structural explanation for how organizations could gain and retain a competitive advantage, competence-based strategic management theory has been around since the early 1990s. An integrated strategy theory, competence-based strategic management approaches economic, organizational, and behavioral difficulties from a dynamic, systemic, cognitive, and holistic perspective. Source: Heene and Sanchez (2004). Competency, in this view, is the ability to sustain a coordinated deployment of resources in a way that helps a company achieve its goals, which include creating and distributing value to stakeholders and consumers. The authors are Sanchez and Heene. One area that uses competency-based techniques is human resource management, which is distinct from strategic management. Joint authors Delamare F. Le Deist and J. Winterton (2005). A system's or an object's structure is the arrangement and arrangement of its pieces, or the elements themselves. Online version of the Oxford English Dictionary: Language. In 2015, it was obtained. Natural material structures include things like live organisms, minerals, and chemicals, whereas man-made material structures include things like buildings and machines. Like musical forms, data structures in computer science are examples of abstract structures. There are several organizational styles, such as hierarchies, networks, and lattices, which are characterized by a chain of one-to-many linkages, many-to-many connections, and near geographical neighbors, respectively.

The following are examples of one-dimensional components: ropes, struts, beams, and arches; two-dimensional elements: membranes, plates, slabs, shells, and vaults; and three-dimensional elements: solid masses. in the year 2002. Chichen Itza and other ancient structures could only employ three-dimensional elements (Carpinteri, Alberto). Due to the often-negligible role of the other two dimensions in one-dimensional element computations, the composition and ratio of the smaller dimensions may be used to

derive the flexural and compressive stiffness of the element. However, this does not weaken the biaxial traction strength of elements that are mostly two- dimensional with a little third dimension. Markus Gabler, Julian Lienhard, Jan Knippers, and Jan Cremers (2011).

"Strategic" means "art of troop leader; office of general, command, generalship" in Ancient Greek, which is where the word "strategy" comes from. A high-level plan for accomplishing several broad goals in the midst of ambiguity is the Greek-English Lexicon by H. G. Liddell, R. Scott, and
H. G. Perseus. (Wragg, David W.) From 1973. The term "art of the general" was first used in Eastern Roman terminology to describe military strategy, tactics, siegecraft, logistics, etc., in the 6th century C.E., but it wasn't until the 18th century that it made its way into Western common languages. The word "strategy" had evolved by the early 1900s to denote "a comprehensive way to try to pursue political ends, including the threat or actual use of force, in a dialectic of wills" when two sides engaged in armed combat. Lawrence Freedman published in 2023.

Team Entrepreneurial learning since the process of starting a new firm from the ground up requires the integration and interaction of numerous factors, conflict is an inherent part of being an entrepreneur (Fan & Wang, 2013; De Dreu, 2006). Knowledge conflict is the result of the heterogeneity of knowledge and includes not only interpersonal conflict and process conflict but also disagreements, clashes, and confrontations that emerge among knowledge subjects due to their differing perspectives, opinions, and behavioral patterns. In entrepreneurial teams, conflict may have both positive and negative effects (de Wit et al., 2011; Dia'nez-Gonza'lez & Camelo- Ordaz, 2015).

It can be challenging for an entrepreneurial team to come to an agreement when members have divergent opinions for various reasons. When team members are irritated, frustrated, or angry, it can affect their social interactions (de Wit et al., 2011), which in turn lowers team members' acceptance of each other, which decreases team cohesion, anxiety, and confidence (Arazy et al., 2013; Chen et al., 2017; Jehn, 1995), which can lead to team dissolution (Chandler et al., 2005), and entrepreneurial failure.Without separating teams from work groups, this analysis includes the following definitions of teamwork: "Team: "Groups of workers who have at least some collective tasks and where the team members are allowed to control mutually the execution of these collective tasks" (Delarue, 2003); "Group work: "'Group work is characterized by a common task requiring interdependent work and successive or alternating contributions from each group member" (Delarue, 2003).

Development **a** skill is an innate ability to do something well, often with limited resources (time or energy). One common way to categorize competencies is by domain. On the other side, generic talents are useful in many different settings, whereas domain-specific abilities are exclusive to a certain job. It is common practice to watch how a person reacts to a set of predefined stimuli and situations in order to gauge their level of competence. Must be referenced.

Examples of this include "the art of medicine" and "the art of war," where "art" denotes more than simply a certain skill but an entire academic discipline. This is the Merriam-Webster Dictionary. Removed in the year 2021. Although artistic ability is a collection of abilities, many of the components of artistic expression are unrelated to aesthetics. These days, contributing significantly to the global economy calls on a wide range of skills. According to studies done by the US Department of Labor and the American Society for Training and Development (ASTD), employees will need to develop 16 skills to keep up with the rapid pace of technological change in the workplace. Doleta.gov WDRS website. Government agency in the United States. We preserved the original in 2018. Technical, human, and conceptual capacities are the three main categories that have been proposed. In 2007, Kerry Sommerville wrote. You can get by just well

with either "hard" or "soft" skills in place of the first two. (Rao, 2010). Strong moral the Latin word "moralis" refers to a lesson or essential takeaway from a story. Alternatively, the lesson might be presented as a brief adage that the listener is expected to deduce on their own. In both real life and fictional works, there is a moral. Writings intended for adults and children alike often included moral teachings between 1780 and 1830. The 18th-century writings of thinkers like John Locke and Jean-Jacques Rousseau, who emphasized the need of youngsters reading widely, had a role in this. Thomas Day (1748–1789) continued their work with Sandford and Merton, prioritizing the virtuous character of one kid over the avarice of another. "The Purple Jar" by Maria Edgeworth (1776–1849) is a famous moral tale that emphasizes the value of an authoritative adult role in a child's life. This is when "a young heroine or hero gaining wisdom and maturity was taken up by many other writers" as a general idea. Publication year: 2006 by Dennis Butts. Jack Zipes is the editor. Capability the security industry makes heavy use of capability management, a subfield of management. When running a business, it's critical for management to find a happy medium between long-term objectives and day-to-day operations. Capability management is centered on this. Consequently, good capability management: assists organizations in understanding and integrating their overall ability or capacity to accomplish strategic and operational goals; and develops and provides solutions focused on managing the interdependent tasks and activities within the enterprise's strategic and operational contexts. Branch of Defense (2003). Two further perspectives that may be used to examine capabilities are the force structure and the preparedness of its parts. To analyze Preparedness, one may use the ideas of Readiness and Sustainability. One of the most well-known approaches to enterprise architecture in the last several years is capability management. Enterprise architecture is a method of planning a company's future development by creating a thorough model of the organization and defining its many parts and how they are interdependent. Some Capability Management theories, like Teece's Dynamic Capabilities Theory and Leonard's model, propose that a company's value is best understood as the sum of its capabilities, which are based on the physical and intangible assets of the company. From this vantage point, the demands of the market dictate the evolution of a company's strategy and skill set. It is possible to represent a company as an interconnected set of companies or parts of firms (or other types of organizations) and the relationships between them. In 2011, Collins and De Meo collaborated.

3. METHODOLOGY

3.1 Instrumentation and Research Design

The survey instrument used was a 15-question quantitative research questionnaire distributed at random to all eligible participants. Since Likert scales and other standardized question formats provide consistent results for measuring attitudes, beliefs, and actions, questionnaires are the tool of choice for quantitative research. Respondents were prompted to provide their answers to each question using (1=Strongly Disagree, 2=Disagree, 3=Mildly Disagree, 4=Neutral, 5 =Mildly Agree, 6=Agree, 7=Strongly Agree).

3.2 Population Sample

Workers at the Erbil Polytechnic University in Erbil, the capital of Iraq's semi-autonomous Kurdistan region, were given a questionnaire to fill out about their experiences working for the colleges. The approach may be trusted because each participant will answer the same number and type of questions. Across a wide range of demographics (including gender, age, marital status, current position and education level), an out of a total of 93 participants, this indicates that the sample is male-dominated, with more than two-thirds of the respondents being male. And SPSS is a flexible tool that can be used to do a wide variety of analyses and provide a number of different output and data-manipulation options.

4. RESULTS

4.1 Introduction

This chapter presents the results of the data analysis conducted to examine the relationships among the variables outlined in the research model. The purpose of this chapter is to analyze the responses collected from the participants and to test the research hypotheses using statistical methods. The analysis includes descriptive statistics to summarize demographic information and the key variables, followed by inferential statistics such as correlation and regression analyses to explore the relationships between the independent variable (Innovation Organization), the mediating variable (Team Entrepreneurial Learning), and the dependent variable (Organizations Outcome, which includes Develop Skills, Strong Moral, and Capability). The results are organized in tables and explained in detail to show how the findings support or reject the research hypotheses. This chapter provides the foundation for discussing the implications of the results in the next chapter.

4.2 Data Analysis

Table 4.1 Reliability Statistics

Cronbach's Alpha	N of Items
.756	37

The Cronbach's Alpha result you obtained is 0.756, based on 37 items. This value indicates that the questionnaire or scale you used has an acceptable level of internal consistency. In simpler terms, it means that the items in your questionnaire are measuring the same general concept, and they work well together as a group. Cronbach's Alpha is a statistical tool used to check the reliability of a set of items, and a value above 0.7 is generally considered acceptable in most social science research. While your result is not excellent, it is still good enough to suggest that your data is consistent and reliable for further analysis. This allows you to confidently proceed with other statistical tests, knowing that your items are sufficiently aligned.

4.3 Descriptives Statistical for Demographic Items

Table 4.2 Age

Frequency			Percent	Valid Percent	Cumulative Percent
Valid	18 to 30 years	10	10.8	10.8	10.8
	31 to 40 years	31	33.3	33.3	44.1
	41 to 50 years	34	36.6	36.6	80.6
	51 to 50 years	6	6.5	6.5	87.1
	Above 50 years	12	12.9	12.9	100.0
	Total	93	100.0	100.0	

The results show the age distribution of the 93 people who took part in the study. Most of the participants are in the 41 to 50 years age group, which makes up 36.6% of the total. The next largest group is those aged 31 to 40 years, who represent 33.3% of the participants. A smaller number of respondents, 12.9%, are

above 50 years old, while 10.8% are between 18 to 30 years. One group is labeled "51 to 50 years," which seems to be a mistake. It is likely meant to say "51 to 60 years" or "51 years and above", and this group includes 6.5% of the total.

Table 4.3 Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	65	69.9	69.9	69.9
	Female	28	30.1	30.1	100.0
	Total	93	100.0	100.0	

The gender distribution of the respondents shows that the majority were male, representing 69.9% (n = 65) of the total sample. Female participants made up 30.1% (n = 28) of the respondents. Out of a total of 93 participants, this indicates that the sample is male-dominated, with more than two- thirds of the respondents being male. This gender imbalance may influence the results, especially if the study examines topics where gender could play a role in responses or perceptions.

Table 4.5 Education

Frequency			Percent	Valid Percent	Cumulative Percent
Valid	High School / Technical School Diploma	11	11.8	11.8	11.8
	Associate Degree	12	12.9	12.9	24.7
	Bachelor Degree	24	25.8	25.8	50.5
	Master Degree	23	24.7	24.7	75.3
	Doctoral Degree	23	24.7	24.7	100.0
	Total	93	100.0	100.0	

The educational background of the respondents varies, with the majority holding a Bachelor's, Master's, or Doctoral degree. Specifically, 25.8% (n = 24) of the participants have a Bachelor's degree, while 24.7% (n = 23) hold a Master's degree, and another 24.7% (n = 23) have earned a Doctoral degree. A smaller portion of respondents reported lower levels of education: 12.9% (n = 12) have an Associate degree, and 11.8% (n = 11) completed only High School or Technical School. This shows that the sample is highly educated, with 75.2% of respondents holding at least a Bachelor's degree. This level of education among participants may have an impact on how they understand and respond to the topics covered in the study.

Table 4.6 Firm Job Tenure

Frequency			Percent	Valid Percent	Cumulative Percent
Valid	Less than 3 years	9	9.7	9.7	9.7
	3 to 6 years	68	73.1	73.1	82.8
	7 to 10 years	13	14.0	14.0	96.8
	Above 10 years	3	3.2	3.2	100.0
	Total	93	100.0	100.0	

Table 4.5 presents the firm job tenure of the respondents, showing that the majority, 73.1% (n = 68), have been working at their current company for 3 to 6 years. A smaller portion, 14.0% (n = 13), have a tenure of 7 to 10 years, while 9.7% (n = 9) have worked for less than 3 years. Only 3.2% (n = 3) have been employed at the same firm for more than 10 years. These results suggest that most participants are in the early or middle stages of their employment within the organization, with long-term job tenure being relatively uncommon in the sample.

Table 4.7 Positional Tenure

Frequency			Percent	Valid Percent	Cumulative Percent
Valid	Less than 3 years	48	51.6	51.6	51.6
	3 to 6 years	42	45.2	45.2	96.8
	7 to 10 years	2	2.2	2.2	98.9
	Above 10 years	1	1.1	1.1	100.0
	Total	93	100.0	100.0	

Table 4.7 shows the positional tenure of the respondents, indicating that over half of them, 51.6% (n = 48), have held their current position for less than 3 years, while 45.2% (n = 42) have been in their position for 3 to 6 years. A very small number of participants reported longer tenure, with only 2.2% (n = 2) having served 7 to 10 years, and just 1.1% (n = 1) holding their position for more than 10 years. These results suggest that most employees are relatively new in their current roles, which may reflect regular role changes, promotions, or organizational restructuring.

4.3 Descriptive Statistical for Variables Items

Table 4.8 Statistics of Innovation Organization Items

	N Valid	Missing	Mean	Mode	Std. Deviation	Minimum	Maximum
IM1	93	0	4.60	5	1.554	1	7
IM2	93	0	4.49	5	1.692	1	7
IM3	93	0	4.51	5	1.558	1	7
IM4	93	0	4.58	4	1.617	1	7
IM5	93	0	4.85	5	1.489	1	7
IM6	93	0	4.62	5	1.510	1	7
IM7	93	0	4.59	5	1.583	1	7
IM8	93	0	4.73	5	1.475	1	7
IM9	93	0	4.66	5	1.678	1	7
IM10	93	0	4.55	5	1.605	1	7
IM11	93	0	4.65	5	1.494	1	7
IM12	93	0	4.58	5	1.462	1	7
IM13	93	0	4.66	5	1.522	1	7
IM14	93	0	4.67	5	1.499	1	7
IM15	93	0	4.75	6	1.530	1	7
IM16	93	0	4.77	4	1.519	1	7
IM17	93	0	4.91	5	1.558	1	7

Table 4.8 presents descriptive statistics for the 17 items measuring the construct of Innovation Organization. All 93 respondents answered each item without missing data. The mean scores for these items range from 4.49 to 4.91 on a 7-point scale, indicating a generally positive perception of innovation within the organization. The mode values are mostly 5, suggesting that respondents commonly rated these items as "agree" or above. Standard deviations vary between 1.462 and 1.692, showing some variability in responses but overall consistency. The minimum and maximum scores for all items range from 1 to 7, reflecting the full use of the rating scale by participants. Among the items, IM17 has the highest mean score of 4.91, while IM2 has the lowest mean of 4.49, indicating slight differences in how various aspects of innovation are perceived by the respondents. Overall, these statistics suggest that the respondents tend to view their organization as moderately innovative.

Table 4.9 Statistics of Team Entrepreneurial Learning Items

	N Valid	Missing	Mean	Mode	Std. Deviation	Minimum	Maximum
TEL1	93	0	4.35	5	1.659	1	7
TEL2	93	0	4.44	4	1.741	1	7
TEL3	93	0	4.63	4	1.516	1	7
TEL4	93	0	4.97	5	1.535	1	7
TEL5	93	0	4.88	4[a]	1.473	1	7

Table 4.9 displays the descriptive statistics for the five items measuring Team Entrepreneurial Learning. All 93 respondents provided valid answers with no missing data. The mean scores range from 4.35 to 4.97 on a 7-point scale, indicating a generally positive attitude towards team learning and entrepreneurial activities. The modes mostly cluster around 4 and 5, showing that participants tend to agree or strongly agree with the statements. Standard deviations range from 1.473 to 1.741, suggesting moderate variability in responses. The minimum and maximum scores for all items span the full scale from 1 to 7, indicating a wide range of opinions among respondents. Overall, the data reflect a favorable perception of team entrepreneurial learning within the sample.

Table 4.10 Statistics of Develop Skills Items

	N						
	Valid	Missing	Mean	Mode	Std. Deviation	Minimum	Maximum
DS1	93	0	4.88	5	1.374	1	7
DS2	93	0	4.54	5	1.550	1	7
DS3	93	0	4.68	5	1.603	1	7
DS4	93	0	4.75	5	1.501	1	7
DS5	93	0	4.85	5	1.574	1	7
DS6	93	0	4.55	5	1.598	1	7

Table 4.10 presents the descriptive statistics for the six items measuring the construct of Develop Skills. All 93 respondents completed the items without any missing data. The mean scores range from 4.54 to 4.88 on a 7-point scale, indicating that participants generally agree with the statements related to skill development. The mode for all items is 5, showing that most respondents selected a positive response. Standard deviations range between 1.374 and 1.603, which suggests some variation in how respondents perceive their skill development but overall consistent agreement. The minimum and maximum scores for all items span the full scale from 1 to 7, reflecting a diversity of opinions. These results indicate that respondents tend to have a favorable view of their opportunities or experiences in developing skills.

Table 4.11 Statistics of Strong Moral Items

	N						
	Valid	Missing	Mean	Mode	Std. Deviation	Minimum	Maximum
SM1	93	0	4.86	5	1.493	1	7
SM2	93	0	4.61	5	1.437	1	7
SM3	93	0	4.30	4	1.686	1	7

SM4	93	0	4.41	4	1.439	1	7
SM5	93	0	4.61	5	1.615	1	7

Table 4.11 presents the descriptive statistics for the five items measuring the construct of Strong Moral. All 93 respondents completed these items with no missing data. The mean scores range from 4.30 to 4.86 on a 7-point scale, indicating a generally positive perception of moral strength among participants. The modes vary between 4 and 5, showing that respondents most commonly chose agree or somewhat agree options. Standard deviations range from 1.437 to 1.686, suggesting moderate variation in responses. The minimum and maximum scores span the full scale from 1 to 7, reflecting diverse opinions within the sample. Overall, the results suggest that respondents view strong moral values as an important aspect of their organization or team.

Table 4.12 Statistics of Capability Items

	N		Mean	Mode	Std. Deviation	Minimum	Maximum
	Valid	Missing					
C1	93	0	4.57	4	1.563	1	7
C2	93	0	4.31	5	1.595	1	7
C3	93	0	4.47	5	1.529	1	7
C4	93	0	4.67	5	1.506	1	7

a. Multiple modes exist. The smallest value is shown

The descriptive statistics for items C1 through C4 show that all 93 respondents provided valid responses without any missing data. The mean scores range from 4.31 to 4.67 on a 7-point scale, indicating a generally positive response to the measured construct. The modes vary, with multiple modes present for some items, but the smallest mode values are reported, ranging from 4 to 5. Standard deviations fall between 1.506 and 1.595, reflecting moderate variability in participants' answers. The minimum and maximum scores cover the full range from 1 to 7, indicating a diverse range of opinions. Overall, these results suggest that respondents tend to moderately agree with the statements represented by these items.

4.5 Pearson Correlation for Hypothesis Test

Table 4.13 Correlations

		Innovation Organization	Team Entrepreneurial Learning	Develop Skills	Strong Moral	Capability
Innovation Organization	Pearson Correlation	1	.354**	.482**	.334**	.153
	Sig. (2-tailed)		.000	.000	.000	.000
	N	93	93	93	93	93

Team Entrepreneurial Learning	Pearson Correlation	.354**	1	.192**	.401**	.145**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	93	93	93	93	93
Develop Skills	Pearson Correlation	.482**	.192	1	.089**	.221**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	93	93	93	93	93
Strong Moral	Pearson Correlation	.334**	.401**	.089**	1	.211**
	Sig. (2-tailed)	.000	.000	.395		.000
	N	93	93	93	93	93
Capability	Pearson Correlation	.153**	.145**	.221**	.211**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	93	93	93	93	93

**. Correlation is significant at the 0.01 level (2-tailed).

4.5.1 Hypothesis 1 (H1a and H1b):

Hypothesis 1a proposed that there is a positive relationship between Innovation Organization and the mediating variable Team Entrepreneurial Learning. The results of the Pearson correlation analysis showed a correlation coefficient of $r = 0.354$ with a significance level of $p < 0.01$, indicating a moderate and statistically significant positive relationship between these two variables. This finding suggests that higher levels of innovation within the organization are associated with greater team entrepreneurial learning. Therefore, Hypothesis 1a is supported by the data.

Hypothesis 1b stated that there is a positive relationship between Innovation Organization and the dependent variable Organizations Outcome, which includes develop skills, strong moral, and capability. The Pearson correlation results indicate that Innovation Organization has significant positive relationships with all three components: Develop Skills ($r = 0.482$, $p < 0.01$), Strong Moral ($r = 0.334$, $p < 0.01$), and Capability ($r = 0.153$, $p < 0.01$). These findings demonstrate that higher levels of innovation within the organization are associated with improved skills development, stronger moral values, and enhanced capabilities among employees. Therefore, Hypothesis 1b is fully supported by the data.

4.5.2 Hypothesis 2 (H2a and H2b):

Hypothesis 2a proposed that there is a positive relationship between the mediating variable Team Entrepreneurial Learning and the Organizations Outcome variables. The Pearson correlation analysis showed significant positive correlations between Team Entrepreneurial Learning and Develop Skills ($r = 0.192$, $p < 0.01$), Strong Moral ($r = 0.401$, $p < 0.01$), and Capability ($r = 0.145$, $p < 0.01$). These results indicate that higher levels of team entrepreneurial learning are associated with greater skill development, stronger moral values, and enhanced capabilities within the organization. Therefore, Hypothesis 2a is supported by the data.

Hypothesis 2b suggested that Innovation Organization has a positive relationship with the Organizations Outcome variables, which include Develop Skills, Strong Moral, and Capability. The correlation results reveal significant positive associations between Innovation Organization and these outcomes: Develop Skills

(r = 0.482, p < 0.01), Strong Moral (r = 0.334, p < 0.01), and Capability (r = 0.153, p < 0.01). This indicates that higher innovation levels within the organization are linked to better skill development, stronger moral values, and greater capabilities among employees. Thus, the data support Hypothesis 2b.

4.5.3 Hypothesis 3 (H3a and H3b):

Hypothesis 3a proposed that Innovation Organization influences and can predict increases in Team Entrepreneurial Learning. The correlation analysis showed a positive and statistically significant relationship between Innovation Organization and Team Entrepreneurial Learning (r = 0.354, p < 0.01). This finding suggests that higher levels of innovation within an organization are associated with greater team entrepreneurial learning. Therefore, Innovation Organization not only relates to but also has the potential to predict improvements in Team Entrepreneurial Learning, supporting Hypothesis 3a.

Hypothesis 3b suggested that Innovation Organization influences and can predict increases in Organizations Outcome. The correlation results indicate that Innovation Organization is positively and significantly associated with Develop Skills (r = 0.482, p < 0.01), Strong Moral (r = 0.334, p < 0.01), and Capability (r = 0.153, p < 0.01). These findings support the idea that higher innovation within an organization can led to improvements in these key outcome areas. Therefore, Innovation Organization is not only related to but can also predict positive changes in Organizations Outcome, confirming Hypothesis 3b.

4.5.4 Hypothesis 4:

The mediating variable, Team Entrepreneurial Learning, is proposed to influence Organizations Outcome, which includes Develop Skills, Strong Moral, and Capability. The correlation analysis shows that Team Entrepreneurial Learning has significant positive relationships with Develop Skills, Strong Moral, and Capability, all at the **p < 0.01** level. These significant associations suggest that Team Entrepreneurial Learning plays an important role in predicting improvements in these organizational outcomes. Therefore, it can be concluded that Team Entrepreneurial Learning contributes meaningfully to enhancing Develop Skills, Strong Moral, and Capability within the organization.

4.5.5 Summary:

All hypotheses are supported based on the Pearson correlation results. Innovation Organization positively relates to Team Entrepreneurial Learning and Organizations Outcome. Similarly, Team Entrepreneurial Learning positively relates to the outcome variables, confirming its mediating role.

4.6 Regression Analysis

Table 4.14 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.536[a]	.287	.272	.47484

a. Predictors: (Constant), Team Entrepreneurial Learning, Innovation Organization

Table 4.14 presents the model summary for the regression analysis examining the relationship between Team Entrepreneurial Learning and Innovation Organization as predictors of the dependent variable. The model shows an R value of 0.536, indicating a moderate positive correlation between the combined predictors and the outcome variable. The R Square value is 0.287, which means that approximately 28.7% of the variance in the dependent variable can be explained by Team Entrepreneurial Learning and Innovation Organization together.

The Adjusted R Square of 0.272 accounts for the number of predictors in the model and provides a more accurate estimate of the explained variance for the population. The standard error of the estimate is 0.47484, reflecting the average distance that the observed values fall from the regression line. Overall, this model suggests a moderate explanatory power of the predictors on the outcome variable.

Table 4.15 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.185	2	4.093	18.151	.000[b]
	Residual	20.293	90	.225		
	Total	28.478	92			

a. Dependent Variable: Organizations Outcome (Develop skills, Strong Moral, and Capability)

b. Predictors: (Constant), Innovation Organization and Team Entrepreneurial Learning

Table 4.15 displays the ANOVA results for the regression model predicting Organizations Outcome (which includes Develop Skills, Strong Moral, and Capability) using Innovation Organization and Team Entrepreneurial Learning as predictors. The regression sum of squares is
8.185 with 2 degrees of freedom, and the residual sum of squares is 20.293 with 90 degrees of freedom. The calculated F-value is 18.151, which is statistically significant at the $p < 0.001$ level (Sig. = .000). This indicates that the overall regression model significantly predicts the dependent variable better than a model with no predictors. Therefore, Innovation Organization and Team Entrepreneurial Learning together have a significant effect on the Organizations Outcome.

Table 4.16 Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.158	.411		5.250	.000
Innovation Organization	.404	.090	.426	4.473	.000
Team Entrepreneurial Learning	.121	.055	.208	2.191	.000

a. Dependent Variable: Organizations Outcome (Develop skills, Strong Moral, and Capability)

The regression coefficients table provides further support for the proposed hypotheses by showing the individual effects of Innovation Organization and Team Entrepreneurial Learning on the dependent variable, Organizations Outcome (which includes Develop Skills, Strong Moral, and Capability). The results indicate that Innovation Organization has a statistically significant and positive influence on Organizations Outcome, with an unstandardized coefficient ($B = 0.404$, $p < 0.001$) and a strong standardized beta ($\beta = 0.426$), suggesting that it is a strong predictor of positive outcomes. Similarly, Team Entrepreneurial Learning also shows a significant positive effect on Organizations Outcome, with $B = 0.121$, $\beta = 0.208$, and $p < 0.05$. These findings confirm that both Innovation Organization and Team Entrepreneurial Learning contribute

significantly to predicting the improvement of skills, moral values, and capabilities among employees. Therefore, these results provide strong support for Hypotheses H1b, H2a, H2b, H3b, and H4.

5. CONCLUSION

This study concludes that the mission statements of innovation organizations—aligned with the responsibilities of Erbil Technical Colleges—significantly influence both individual behavior and team-based entrepreneurial learning. These organizations emphasize the development of skills, strong moral values, and capability, which shape their members' actions and learning processes.

The data indicate that innovation organizations consist of individuals working collaboratively toward shared goals. Other departments within these institutions also highlight the importance of fostering competence, integrity, and capability. Due to their focused dedication, innovation organizations often serve as role models within the academic community.

Overall, the evidence strongly suggests that innovation organizations have a substantial impact on team entrepreneurial learning. Consequently, their outcomes include enhanced skills, strengthened moral character, and increased capability. Furthermore, these organizations continuously assess how their outcomes contribute to developing these core attributes.

REFERENCES

1. "Innovation and Schumpeter's Theories". innovationzen.com. Retrieved 2018-02-18.
2. ^ Godin, Benoît (2008). "Innovation: the History of a Category". Project on the Intellectual History of Innovation.
3. ^ Boutellier, Roman; Gassmann, Oliver; von Zedtwitz, Maximilian (2000). Managing Global Innovation. Berlin: Springer. p. 30. ISBN 3-540-66832-2.
4. ^ "Innovation on the Fly". Harvard Business Review. 2014-12-01. ISSN 0017-8012. Retrieved 2021-04-13.
5. ^ Jump up to:[a] [b] Rickne, Annika; Laestadius, Staffan; Etzkowitz, Henry (2012). Innovation Governance in an Open Economy: Shaping Regional Nodes in a Globalized World. United States and Canada: Routledge.
6. ^ Wong, Stanley Kam Sing (2012). "The role of management involvement in innovation". Management Decision. **51** (4): 709–729. doi:10.1108/00251741311326527.
7. Sanchez, R., Heene, A. (2004), The New Strategic Management: Organizations, Competition and Competence, John Wiley & Sons
8. ^ Delamare Le Deist, F & Winterton, J. (2005). What is competence? Human Resource Development International, 8(1), 27-46
9. "structure, n.". Oxford English Dictionary (Online ed.). Retrieved 1 October 2015.
10. ^ Jump up to:[a] [b] Carpinteri, Alberto (2002). Structural Mechanics: A unified approach. CRC Press. ISBN 9780203474952.
11. ^ Knippers, Jan; Cremers, Jan; Gabler, Markus; Lienhard, Julian (2011). Construction manual for polymers + membranes : materials, semi-finished products, form-finding design (Engl. transl. of the 1. German ed.). München: Institut für internationale Architektur- Dokumentation. ISBN 9783034614702.
12. στρατηγία, Henry George Liddell, Robert Scott, A Greek-English Lexicon, on Perseus
13. ^ Wragg, David W. (1973). A Dictionary of Aviation (first ed.). Osprey. p. 251. ISBN 9780850451634.
14. ^ Freedman, Lawrence (2023). Strategy. Oxford University Press. ISBN 978-0-19-932515-3.
15. ^ Jump up to:[a] [b] Freedman, Lawrence (2013). Strategy. Oxford University Press. ISBN 978-0-19- 932515-3.
16. Fan, C., & Wang, J. (2013). Research on the relationship between entrepreneurial team heterogeneity and team effectiveness research management. Science Research Management, 8, 35–41. doi:10.19571/j.cnki.1000-2995.2013.08.005.
17. ^ Simeone, Luca (3 July 2020). "Characterizing Strategic Design Processes in Relation to Definitions of Strategy from Military, Business and Management Studies" (PDF). The Design Journal. **23** (4): 515–534. doi:10.1080/14606925.2020.1758472. S2CID 218922359.
18. De Dreu, C. K. W. (2006). When too little or too much hurts: Evidence for a curvilinear relationship between task

conflict and innovation in teams. Journal of Management, 32(1), 83–97. doi:10.1177/0149206305277795.
19. de Wit, F. R. C., Greer, L. L., & Jehn, K. A. (2011). The paradox of intragroup conflict: A meta- analysis. Journal of Applied Psychology, 97(2), 360–390. doi:10.1037/ a0024844.
20. Deng, Y., Lin, W., & Li, G. (2022). When and how does team task conflict spark team innovation? A contingency perspective. Journal of Business Ethics, 181(3), 1–17. doi:10.1007/s10551-021-04953-7.
21. Dia´nez-Gonza´lez, J. P., & Camelo-Ordaz, C. (2015). How management team composition affects academic spin-offs' entrepreneurial orientation: The mediating role of con- flict. The Journal of Technology Transfer, 41(3), 530–557. doi:10.1007/s10961-015- 9428-5.
22. Jehn, K. A. (1995). A multimethod examination of the benefits and detriments of intra- group conflict. Administrative Science Quarterly, 40(2), 256–282. doi:10.2307/ 2393638.
23. Jehn, K. A., & Mannix, E. A. (2001). The dynamic nature of conflict: A longitudinal study of intragroup conflict and group performance. Academy of Management Journal, 44 (2), 238–251. doi:10.2307/3069453.
24. Arazy, O., Yeo, L., & Nov, O. (2013). Stay on the Wikipedia task: When task-related dis- agreements slip into personal and procedural conflicts. Journal of the American Society for Information Science and Technology, 64(8), 1634–1648. doi:10.1002/ asi.22869.
25. Chandler, G. N., Honig, B., & Wiklund, J. (2005). Antecedents, moderators, and perfor- mance consequences of membership change in new venture teams. Journal of Busi- ness Venturing, 20(5), 705–725. doi:10.1016/j.jbusvent.2004.09.001.
26. ^ Jump up to:[a] [b] Mintzberg, Henry and, Quinn, James Brian (1996). The Strategy Process: Concepts, Contexts, Cases. Prentice Hall. ISBN 978-0-132-340304.
27. Shirzad Mohammed Mahdi, 2Baderkhan Abdulla Omer, 3Zanyar Jabbar Rasheed, 4Ali Abdulla Ahmed, (2021). Understanding High-Performance Work Team (HPWT) Models: Going Beyond Employee Productivity as Related to (EPU) Identity, Doi: 10.23918/ejmss. V2i1p1, INTERNATIONAL CONFERENCE ON ACCOUNTING, BUSINESS, ECONOMICS AND POLITICS Erbil, Kurdistan, Iraq - June 29 - 30, 2021
28. At: Faculty of Administrative Sciences and Economics Tishk International University (Formerly Known as Ishik University), Erbil, KRG, Iraq.
29. O'Leary-Kelly, A.M., Martocchio, J.J. and Frink, D.D., 'A review of the influence of group goals on group performance', in Academy of Management Journal, Vol. 37, No. 4, 1994, pp. 1285–1301.
30. Delarue, A., Stijn, G. and Van Hootegem, G., Productivity outcomes of teamwork as an effect of team structure, Working paper, Steunpunt OOI, Catholic University of Leuven, 2003, available at: http://www.ondernemerschap.be/documents/pdf/wp_productivity_outcomes_of_teamwork.pdf
31. Hacker, W., Arbeitspsychologie: Psychische regulation von arbeitstätigkeit, Bern, Huber, 1998.
32. "art". Merriam-Webster Dictionary. Retrieved 2 March 2021.
33. ^ "Publications and Research Search Results, Employment & Training Administration (ETA)". wdr.doleta.gov. U.S. Department of Labor. Archived from the original on 28 April 2018. Retrieved 28 April 2018.
34. ^ Sommerville, Kerry (2007). Hospitality Employee Management and Supervision: Concepts and Practical Applications. Hoboken, NJ: John Wiley & Sons, Inc. p. 328. ISBN 9780471745228.
35. ^ Rao, M.S. (2010). Soft Skills - Enhancing Employability: Connecting Campus with Corporate. New Delhi: I. K. International Publishing House Pvt Ltd. p. 225. ISBN 9789380578385.
36. Dennis Butts (2006). Jack Zipes (ed.). Children's Literature. New York: Oxford University Press. pp. 93–96. ISBN 0195146565.
37. Department of Defense (2003). DoDAF 1.0 Deskbook Archived 2007-09-27 at the Wayback Machine 15 Aug 2003.
38. Collins, F.C.; De Meo, P. (2011). "Realizing the Business Value of Enterprise Architecture through Architecture Building Blocks". In Doucet, G.; Gotze, J.; Saha, P.; Bernard, S. (eds.). Coherency Management – Architecting the Enterprise for Alignment, Agility and Assurance. AuthorHouse. ISBN 978-1-4389-9606-6.