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STRATEGIC THINKING SKILLS AND ITS RELATIONSHIP WITH SYSTEMS INTELLIGENCE FOR DEPARTMENT HEADS AT TAIF UNIVERSITY IN SAUDI ARABIA

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ABSTRACT: *This study sought to Detecting the level of Strategic thinking skills and systems Intelligence for Department Heads in Taif University at Saudi Arabia, Identifying the Relationship between Strategic thinking skills and systems, Investigation the differences in Strategic thinking skills and systems Intelligence for Department Heads in Taif University at Saudi Arabia according to (Specialization - Years of Experience). Study Sample Consists (47) from Department Heads in Taif University at Saudi Arabia. Their average age was 39.42 years (SD=2.61). The Researcher used a Strategic thinking skills questionnaire (Developed by: John Pisapia 2014) and systems Intelligence questionnaire (Developed by: Rauthmann, J 2010). For Statistical Analysis researcher used Pearson Correlation Coefficient and Two-Way ANOVA. The Results of the Study indicated That There is significant Relationship between Strategic thinking skills and systems Intelligence for Department Heads in Taif University at Saudi Arabia, There are no significant Differences at Strategic Thinking Skills for Department Heads in Taif University at Saudi Arabia According to Specialization, There are significant Differences at Strategic Thinking Skills for Department Heads in Taif University at Saudi Arabia According to Years of Experience and There are significant Differences at systems Intelligence for Department Heads in Taif University at Saudi Arabia According to (Specialization - Years of Experience).Theoretical of the present results are discussed and some Recommendations are represented.*

KEYWORDS: Strategic Thinking Skills, Systems Intelligence

INTRODUCTION

Strategic Thinking (ST)

Strategic thinking has long been considered a leadership responsibility, and the development of strategic thinking in people at all levels is a concern of leaders and adult educators (Mellon&Kroth, 2013, p.70).

Strategic thinking is creative, critical, and analytical although accomplishing all types of thinking simultaneously is difficult, because of the requirement to suspend critical judgment. When applied correctly, strategic thinking enables the leader to Recognize interdependencies, interrelationships and patterns and Make consequential decisions using both powers of analysis and intuition (Pisapia, J., Pang, N., Hee, T., Lin, F., Morris, J, 2009, p.2).

Al-Qatamin&Esam (2018) defined Strategic thinking is a process that embedded the manner in which people think and rethink, evaluate, view, and conduct the future for themselves and others. Strategic thinking is an extremely effective and valuable tool. One can apply strategic thinking to arrive at decisions that can be related to work or personal life. Strategic thinking involves developing an entire set of critical cognitive and analytical skills (p.128).

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According to Mintzberg (1995), strategic thinking is the ability to "see through" and consists of three sets of components:

- Seeing ahead-seeing behind (having a good vision of the future based on an understanding of the past);
- Seeing above-seeing below (having a "helicopter" perspective, from a wide scope, then taking a walk to see reality); and
- Seeing beside-seeing beyond (having lateral thinking and the capacity to envision the future). (p. 79)

Strategic Thinking Skills:

Pisapia, et al (2009) stated that we begin by defining the three strategic thinking skills that appear to be related to leader success (Pisapia, Reyes-Guerra &Coukos-Semmel, 2005; Pisapia, Reyes-Guerra &Yasin 2006). These three skills assist leaders in (a) reframing situations so they become clearer and more understandable; (b) reflecting and developing theories of practice which guide actions and, (c) thinking in more holistic ways. They also aid leaders in seeing events and problems in terms of concepts, which are useful ways of thinking effectively about problems (p.47).

According to Pisapia, Ellington, Toussaint& Morris (2011) Strategic Thinking Skills included:

- **Systems thinking**: Refers to the leader's ability to see systems holistically by understanding the properties, forces, patterns and interrelationships that shape the behaviour of the system, which hence provides options for action.
- **Reflecting**: Refers to the leader‟s ability to weave logical and rational thinking, through the use of perceptions, experience and information, to make judgments on what has happened, and creation of intuitive principles that guide future actions.
- **Reframing**: Refers to the leader‟s ability to switch attention across multiple perspectives, frames, mental models, and paradigms to generate new insights and options for actions p.3.

As Steptoe-Warren et al (2011) conclude "The aim of strategic thinking and decision making is to ensure survival of the organization in a competitive marketplace. For this to occur there is a need for effective strategic thinking and decision making that steers the organization in the most appropriate direction." (p. 246)

Importance of Strategic Thinking:

Strategic thinking is a way of solving strategic problems that combines a rational and convergent approach with creative and divergent processes (Bonn, 2005). Thinking strategically helps us to make sense out of chaos and enables us to use the forces around us to our advantage, rather than allow those forces to pummel us. We learn to quarterback our own lives, both by planning ahead and by adapting our plan in the moments of decision that matter most (Ridgley, S, 2012, p9). Strategic thinkers work from a mental model of the complete system. This strategic mindset incorporates an understanding of both the external and internal context of the organization (Pisapia, J., Pang, N., Hee, T., Lin, F., Morris, J, 2009, p2).

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Strategic thinking provides executives with the ability to develop a clearly focused vision and therefore allow them to think with strategic purpose. Having such skills, executives can clearly formulate their organization's strategic objectives and designing strategic action plans to achieve them. An executive with strategic thinking skills can utilize thinking process with high degree of flexibility. Therefore, the most significant trait of strategic thinking can be seen in the ability of managers to employ these advanced human thinking skills in organizational problem solving process and adaptation with external turbulent environment in an innovative manner. This will actually lead to alleviating organizational competitive approaches to the highest possible positions in the competitive markets. Based on this argument, adapting and developing strategic thinking skills should clearly accomplish many advantages to corporations (McCauley, 2012).

Nuntamanop et al (2013) posit that "Despite a wide consensus on the importance of strategic thinking to business performance, an extensive literature review has found few studies that define what strategic thinking is or empirically verify how strategies and strategic actions business leaders in practice take relate to strategic thinking." (p. 243).

Systems Intelligence (SI)

Systems intelligence draws from and extends previous notions of intelligence (Goleman, 2006).

Systems Intelligence is a term coined by the joint Study efforts of RaimoHämäläinen and Esa Saarinen of the Helsinki Systems Analysis Laboratory, and explored in their work Systems intelligence: Discovering a hidden competence in human action and organisational life (Hämäläinen and Saarinen 2004).

Systems Intelligence means intelligent behaviour in the context of complex systems involving interaction and feedback (Hämäläinen, R; Saarinen, E, 2006, P1). Systems intelligence, the novel concept of human behavioural intelligence (Anen, 2007, P2) deals with the structures human agents use in order to conduct their lives successfully (Hämäläinen, Saarinen, 2007,P52) like the forms of intelligence described by Howard Gardner (1983, 1999), as well as emotional intelligence as explicated by Daniel Goleman (1995, 1998). Systems Intelligence is the higher final product of brain structures (systems) that includes mutual, dynamic, holistic interaction and feedback- within the system and with the environment or other systems. It is well- known that systemic Intelligence concept refers to a variety of multidiscipline and scientific schools of thought (Abdelwahab, K, 2010, P 483).

In fact, Hämäläinen and Saarinen see Systems Intelligence as providing the link between Senge's personal mastery and systems thinking (Hämäläinen and Saarinen 2004).

Hämäläinenand Saarinen (2004) stated that Systems Intelligence in the sense in which we conceive it wants to push Systems Thinking towards action and concrete, actual life. The effort could be described as follows:

- Systems Intelligence follows Systems Thinking in setting out from the primacy of the whole, from acknowledging interconnectivity, interdependence and systemic feedback as the key parameters.

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- Like Systems Thinking, Systems Intelligence wants to account for change. Unlike Systems Thinking, Systems Intelligence involves driving change and actively embracing change.

- Unlike Systems Thinking, Systems Intelligence is primarily outcome-oriented and not a descriptive effort; it is intelligence- in-action on its way to create successful systemic change.

- Unlike Systems Thinking, Systems Intelligence is a capacity in the human being that involves instinctual, intuitive, tacit, subconscious and unconscious and inarticulate aspects that cannot be straightforwardly reduced to a full-fledged and transparent cognitive dimension p.8.

Dimensions of Systems Intelligence:-

Hämäläinen and Saarinen (2004) point out three critical dimensions of Systems Intelligence:

- Thinking (believing) about one's own thinking (and believing), and realising the opportunities therein.

- Thinking (believing) about what others are thinking (and believing), and realising the opportunities therein.

- Thinking (believing) about the interaction systems, rituals, social habits and their chains, and realising the opportunities of influencing those systems. p. 18.

In 2013, Elfiel stated that Systems Intelligence has four abilities, these abilities included: (Systems awareness- Systems preoccupation- Systems control- Systems Development) p.6.

A Systems intelligent person has a high-level capability to grasp and marshal the complex processes and interactions that ultimately dictate the systems environment, and, consequently, to accurately establish the constraints as well as the catalysts of the system (Westerlund, 2004, P24). Systems Intelligence has Five Levels first seeing oneself in the System, Thinking about Systems Intelligence, Managing Systems Intelligence, Sustaining Systems Intelligence and Leadership with Systems Intelligence (Hämäläinen, R; Saarinen, E, 2010, P 16, 2006, P11). Systems intelligence involves the ability to use the human sensibilities of systems and reasoning about systems in order to adaptively carry out productive actions within and with respect to systems (Hämäläinen, R; Saarinen, E, 2010, P 16). Systems intelligence consists of some Stages such as Reflexive systems intelligence, Attentive systems intelligence, Active systems intelligence and inspired systems intelligence (Jones& Corner, 2011, p.8). And systems intelligence included Five levels:-

- Seeing oneself in the system: Ability to see oneself and one's roles and behaviour in the system and also through the eyes of other people and with different framings of the system Systems thinking awareness

- Thinking about systems intelligence: Ability to envision and identify productive ways of behaviour for oneself in the system and cognitively understanding systemic possibilities emerging from one's choices

- Managing systems intelligence: Ability to personally exercise productive ways of behaving in the system

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- Sustaining systems intelligence: Ability to continue and foster systems intelligent behaviour in the long run

- Leadership with systems intelligence: Ability to initiate and create systems intelligent organizations (in Jones& Corner, 2011, p.7).

In 2006 Hämäläinen and Saarinen stated that there are five levels of systems intelligence, table 1 indicates these levels.

Table (1) Five levels of systems intelligence (from Hämäläinen and Saarinen, 2006, p. 198)

Level	Descriptor	Characterized by
1	Seeing oneself in the system	Ability to see oneself and one's roles and behavior in the system and also through the eyes of other people and with different framings of the system Systems thinking awareness
2	Thinking about systems intelligence	Ability to envision and identify productive ways of behavior for oneself in the system and cognitively understanding systemic possibilities emerging from one's choices
3	Managing systems intelligence	Ability to personally exercise productive ways of behaving in the system
4	Sustaining systems intelligence	Ability to continue and foster systems intelligent behavior in the long run
5	Leadership with systems intelligence	Ability to initiate and create systems intelligent organizations

Importance of Systems Intelligence:

An underlying premise of Systems Intelligence is that individuals can have an effect on the system. They can not only have the effect of perpetuating the system, but can also, by a small change in behaviour, alter the system in profound ways. In order to do this purposefully, the individual needs to be Systems Intelligent. They need to be aware of the existence of the system and its structure. They need to understand the impact the system has on the individuals comprising it. They need to be aware of their own place in the system and they need to have the ability to see with another's eyes. Systems Intelligence avoids conceptualising human behaviour as linear cause and effect reactions and viewing individuals as separate units rather than parts of the same whole. Instead, it invites us to view the world and our place in it as part of a series of connections and interrelations (In Hämäläinen& Saarinen, 2007, p.243).

In addition to Jones and Corner (2012, p.32) the systems intelligence lens offers the possibility of assisting managers to attune themselves with life as an emergent system, without areliance on modelling. Yet, managers are inculcated into a system that does not take into account either their humanity or the slippery nature of the systems within which they operate.

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Study Problem:

Strategic Thinking helps people to impose a bit of order onto a reality that remains stubbornly disorderly. It empowers us to lay down a rudder, to harness the wind, and to propel ourselves in our desired direction. The benefits of strategic thinking are many: increased productivity and work satisfaction, less stress, and the achievement of goals more often than not. Although our journey is never free from chance and uncertainty, thinking strategically surely makes the ride more enjoyable (Ridgley, S, 2012, p187).

As Systems intelligence importance lies in that: -

- Creative and optimal solutions to everyday problems become easier.
- Marital satisfaction is highly correlated to the level of feeling self-other overlap between the couple.
- Relationships in general are closer, longlasting, attracting loyalty instead of bitterness
- Broadening builds "both strategic alliances and globe-spanning friendships.
- Organizational groups tend to start working on "we" principle towards common goal (Rönkkönen, E; Saarinen, E,2010,P168).

Even though there has been a considerable amount of impressive theorisation on the nature of Systems intelligence, empirical studies are still needed (Rauthmann, J, 2010, P29).

Based on the above Study problem can be determined on the following questions:-

1- What is the Relationship between Strategic thinking skills and systems Intelligence for Department Heads in Taif University at Saudi Arabia?

2- What are the differences in Strategic thinking skills for Department Heads in Taif University at Saudi Arabia according to (Specialization - Years of Experience)?

3- What are the differences in systems Intelligence for Department Heads in Taif University at Saudi Arabia according to (Specialization - Years of Experience)?

Study Objectives:

1- Identifying the Relationship between Strategic thinking skills and systems Intelligence for Department Heads in Taif University at Saudi Arabia?

2- Investigation the differences in Strategic thinking skills for Department Heads in Taif University at Saudi Arabia according to (Specialization - Years of Experience).

3- Investigation the differences in systems Intelligence for Department Heads in Taif University at Saudi Arabia according to (Specialization - Years of Experience).

Study Importance:

1- Paying attention on studying new topics on the Arab environment, especially in the Kingdom of Saudi Arabia.

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2- Provide a questionnaire for Strategic thinking skills would enrich the Arabic library in this topic.

3- Provide a questionnaire for Systems intelligence would enrich the Arabic library in this topic.

4- The results of this study May serve concerned with the affairs of Saudi universities with regard to the mechanisms of selection of Department Heads.

5- This study is a response to many of the recommendations of the previous studies, such as Pisapia, J, et al (2011) and Rauthmann, J, (2010).

Study Methodology:

This Study depend on the Descriptive Method in particular the correlation studies these used to reveal the correlation between variables and determine the extent and direction of this relationship, and a researcher will depend on comparative studies, because this method agrees with the nature of current Research.

Study Tools:

1- Strategic thinking questionnaire. (Developed by: John Pisapia2014).

The Strategic thinking questionnaire (STQ) was originally developed from an interpretation of the literature on strategic thinking as being composed of three dimensions(factors), namely systems thinking represented by (9) items, reframing represented by (9) items and reflection represented by (7) items.

This questionnaire consists of (25) items, Answers should be given on a 5-point Likert scale ranging from “1 – I totally disagree”to “5 – I totally agree”. Some items need to be reversed each item.

The researcher calculates the Reliabilityof the questionnaire in a Cronbach's alpha the statistical analysis shows the values of reliability coefficients in a "Cronbach Alpha" is (0.829).

2- Systems intelligence questionnaire. (Developed by: Rauthmann, J (2010).

This questionnaire consists of (30) items, each item followed by (5) answers (Never- Rarely- Sometimes- Often- Always). Reliability of the TSIS will be evaluated by internal consistency indexed by Cronbach’s alpha.

The results of the exploratory factor of the questionnaire items revealed that the questionnaire has four dimensions (factors), namely, the Effective systems handling represented by (12) items, the systematic reflection represented by (6) items, the Holistic systems perception represented by (5) items, the Systemic flexibility represented by (7) items.

The researcher calculates the Reliabilityof the questionnaire in a Cronbach's alpha the statistical analysis shows the values of reliability coefficients in a "Cronbach Alpha" is (0.843).

Study limitations:

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The generalization of the results of this Study depends on the following limits:-

1- **Spatial limits**: - The field study of this Study willconduct in Taif University at Saudi Arabia.

2- **Time limits**: - The field study of this Study will conduct within the second semester of the academic year (2017/2018).

3- **Sample**: - The sample Consists (47) from Department Heads in TaifUniversity at Saudi Arabia, below table indicated Distribution of Study Sample according Demographic Variables.

Table (1) Distribution of Study Sample according Study Demographic Variables

Variables		N	Total
Specialization	Scientific	22	47
	Literature	25	
Years of Experience	Less Than (5) Years	17	47
	(5-10) Years	17	
	More Than (10) Years	13	

Study Results:

The aim of data analysis and discussion is to give a clear answer for the research-paper one question in a way to reflect the findings in a scientific way.

***Question 1**: What is the Relationship between Strategic thinking skills and systems Intelligence for Department Heads in Taif University at Saudi Arabia?*

Below table indicated the Relationship Coefficientsbetween Strategic thinking skills and systems Intelligence for Department Heads in Taif University at Saudi Arabia.

Table (2) Relationship Coefficients between Strategic Thinking Skills and Systems Intelligence (N=47)

		Strategic Thinking			
		Systems Thinking	**Reframing**	**Reflection**	**Total Degree**
Systems Intelligence	**Effective Systems Handling**	**.069**	**.325***	**.312***	**.440****
	Systematic Reflection	**.447****	**.108**	**.436****	**.471****
	Holistic Systems Perception	**.317***	**.047**	**.325***	**.415****
	Systemic Flexibility	**.329***	**.618****	**.226**	**.567****
	Total Degree	**.444****	**.460****	**.435****	**.394****

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

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Previous table indicated that there is significant Relationship between Strategic thinking skills and systems Intelligence for Department Heads in Taif University at Saudi Arabia.

***Question 2**: What are the differences in Strategic thinking skills for Department Heads in Taif University at Saudi Arabia according to (Specialization - Years of Experience)?*

Below table indicated Results of Two-Way ANOVA to the Differences at Strategic Thinking Skills for Department Heads in Taif University at Saudi Arabia According to (Specialization - Years of Experience).

Table (3) Results of Two-Way ANOVA to the Differences at Strategic Thinking Skills for Department Heads in Taif University at Saudi Arabia According to (Specialization - Years of Experience) (N=47)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Specialization	58.802	1	58.802	1.347	.252
Years of Experience	313.285	2	156.643	3.590	.037
Specialization * Years of Experience	139.324	2	69.662	1.596	.215
Error	1789.186	41	43.639		
Total	555715.000	47			

Previous table indicated that:-

- There are no significant Differences at Strategic Thinking Skills for Department Heads in Taif University at Saudi Arabia According to Specialization.
- There are significant Differences at Strategic Thinking Skills for Department Heads in Taif University at Saudi Arabia According to Years of Experience.
- There are no significant Differences at Strategic Thinking Skills for Department Heads in Taif University at Saudi Arabia According to interaction between Specialization and Years of Experience.

Below table indicated the Means and Std. Error and Scheffe value to the Differences between groups at Strategic Thinking Skills for Department Heads in Taif University at Saudi Arabia.

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Table (4) Means and Std. Error and Scheffe value to the Differences between groups at Strategic Thinking Skills for Department Heads in Taif University at Saudi Arabia

Variables		Mean	Std. Error			
Specialization	Scientific	106.98	1.59			
	Literature	109.5	1.47	Less Than (5) Years	(5-10) Years	More Than (10) Years
Years of Experience	Less Than (5) Years	105.09	1.89	----	----	----
	(5-10) Years	107.33	1.76	2.06	----	----
	More Than (10) Years	112.29	1.99	8.43*	6.38*	----

Previous table indicated that Scheffe value is significant at Strategic Thinking Skills for Department Heads in Taif University at Saudi Arabia According to Years of Experience between:

- Category (Less Than (5) Years) and (More Than (10) Years) category for (More than (10) Years) category.
- Category ((5-10) Years) and (More Than (10) Years) category for (More than (10) Years) category.

The Below figure shows the bar charts for Means degrees of Strategic Thinking Skills for Department Heads in Taif University at Saudi Arabia According to (Specialization - Years of Experience).

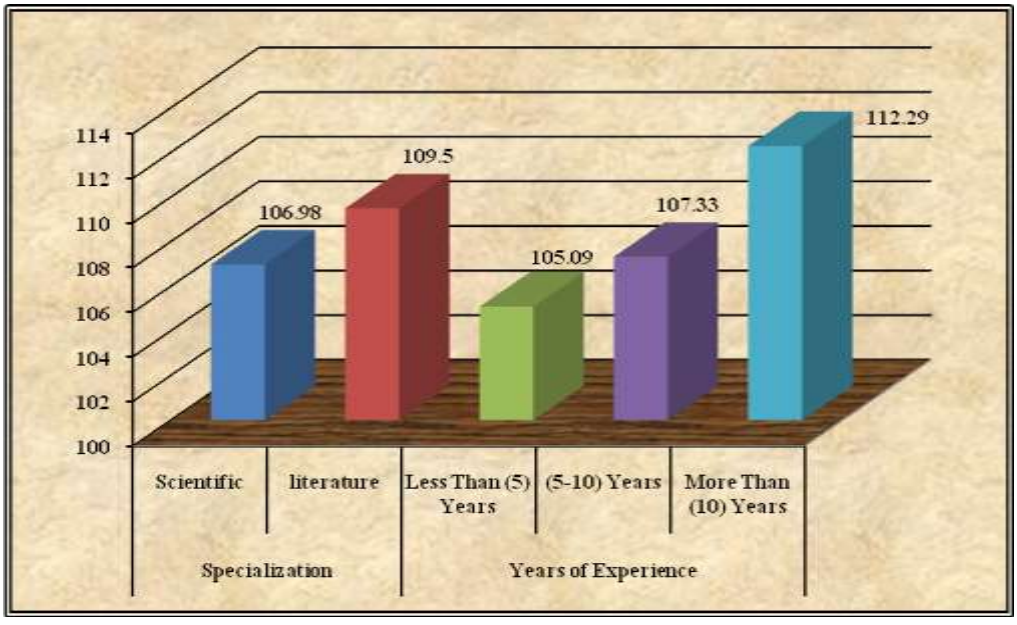

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Figure (2) the bar charts for Means degrees of Strategic Thinking Skills for Department Heads in Taif University at Saudi Arabia According to (Specialization - Years of Experience).

***Question 3**: What are the differences in systems Intelligence for Department Heads in Taif University at Saudi Arabia according to (Specialization - Years of Experience)?*

Below table indicated Results of Two-Way ANOVA to the Differences at systems Intelligence for Department Heads in Taif University at Saudi Arabia According to (Specialization - Years of Experience).

Table (5) Results of Two-Way ANOVA to the Differences at systems Intelligence for Department Heads in Taif University at Saudi Arabia According to (Specialization - Years of Experience) (N=47)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Specialization	744.703	1	744.703	4.974	.031
Years of Experience	4046.456	2	2023.228	13.514	.000
Specialization * Years of Experience	463.546	2	231.773	1.548	.225
Error	6138.166	41	149.711		
Total	818391.000	47			

Previous table indicated that:

- There are significant Differences at systems Intelligence for Department Heads in Taif University at Saudi Arabia According to Specialization for ScientificSpecialization.
- There are significant Differences at systems Intelligence for Department Heads in Taif University at Saudi Arabia According to Years of Experience.
- There are no significant Differences at systems Intelligence for Department Heads in Taif University at Saudi Arabia According to interaction between Specialization and Years of Experience.

Below table indicated the Means and Std. Error and Scheffe value to the Differences between groups at systems Intelligence for Department Heads in Taif University at Saudi Arabia.

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Table (6) Means and Std. Error and Scheffe value to the Differences between groups at systems Intelligence for Department Heads in Taif University at Saudi Arabia

Variables		Mean	Std. Error			
Specialization	Scientific	135.59	2.97			
	literature	126.63	2.72	Less Than (5) Years	(5-10) Years	More Than (10) Years
Years of Experience	Less Than (5) Years	126.57	3.49	----	----	----
	(5-10) Years	120.99	3.26	10.42	----	----
	More Than (10) Years	145.78	3.68	12.92*	23.33*	----

Previous table indicated that Scheffe value is significant at systems Intelligence for Department Heads in Taif University at Saudi Arabia According to Years of Experience between:

- Category (Less Than (5) Years) and (More Than (10) Years) category for (More than (10) Years) category.
- Category ((5-10) Years) and (More Than (10) Years) category for (More than (10) Years) category.

The Below figure shows the bar charts for Means degrees of systems Intelligence for Department Heads in Taif University at Saudi Arabia According to (Specialization - Years of Experience).

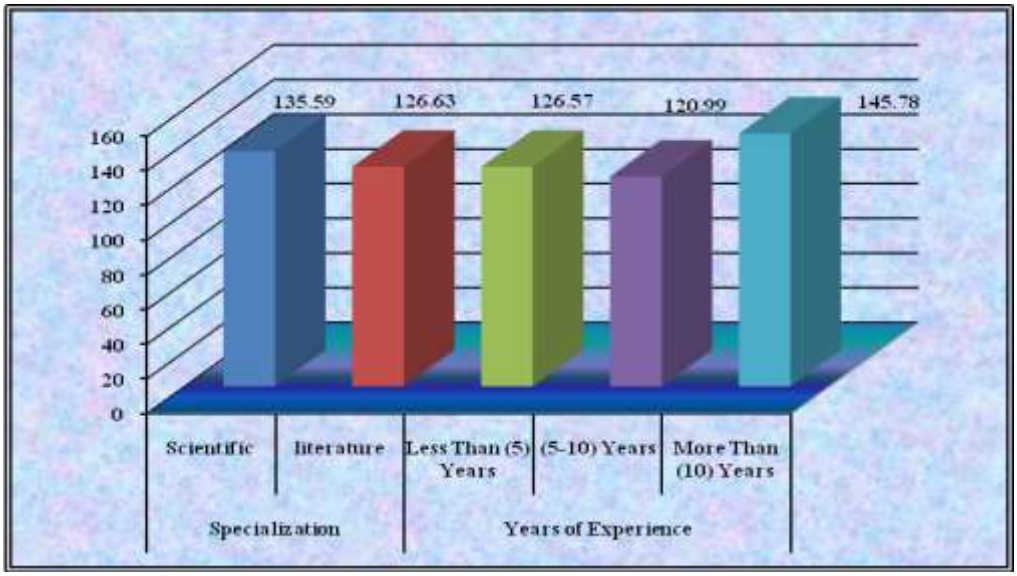

Figure (2) thebar charts for Means degrees of systems Intelligence for Department Heads in Taif University at Saudi Arabia According to (Specialization - Years of Experience).

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DISCUSSIONS:

There is a statistically significant relationship between strategic thinking and systems intelligence. The main reason for these finding was that strategic thinking enables an individual to:

- Access to prior information, correct misinformation, explore and install information, and ask relevant explanatory questions.
- Think rationally about the causes, effects, actions and reactions, that is, the need to look at what surrounds us and interact with it as a dynamic system.
- Transform ideas into a product and how to benefit from available conceptual tools. It also includes an understanding of how complex systems perform and function. All this synthesis will enable the individual to solve complex problems and put them in his hand.
- Identify the different relationships, overlaps and patterns, and to make sequential decisions using the forces of intuition and analysis.

Strategic thinking depends on analysis and synthesis, and requires the ability to identify patterns, explore new possibilities, deal with large parts of information, and place this information or parts in a large integrated structure. On the other side, systems intelligence enables individual to:

- Awareness of the system without neglecting its component parts.
- Understand impacts and influence relationships between these parts, and recognize the impact of the system on us and on others;
- Read situations as a system.
- Deal with his environment, which has become unpredictable and uncontrollable.
- Achieve greater excellence in something they already practice.

According to these finding, there are a common denominators between strategic thinking and systems intelligence, so there was a statistically significant relation between strategic thinking and systems intelligence.

There are no statistically significant differences in strategic thinking according to specialization variable. The main reason for these finding was strategic thinking is not related to specific content dealing with it, but it deals with how to face problems and reflect on them and rework solutions, whatever the content of these problems.

There are statistically significant differences in strategic thinking according to years of experience variable in favor of the most years of experience. The main reason for the presentfinding was strategic thinking is influenced by the cumulative knowledge and the experience in facing previous problems and how to benefit from the previous problems in facing the current problems

There are statistically significant differences in systems intelligence according to specialization variable in favor of scientific specialization. The main reason for these finding was systems intelligence is more scientific than literary in terms of dealing with the science

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of systems and understanding relations between aspects and elements of systems and engagement, influence and development in it.

There are statistically significant differences in systems intelligence according to years of experience variable in favor of the most years of experience. The main reason for the presentfinding was systems intelligence is influenced by the cumulative knowledge and the experience in facing previous problems and how to benefit from the previous problems in facing the current problems.

STUDY RECOMMENDATIONS

Through the results of the current study, the researcher recommends the following:-

- Developing strategic thinking skills and systems intelligence among faculty members in Saudi universities.
- Studying the relationship between strategic thinking skills and administrative creativity skills among faculty members in Saudi universities.
- Cooperating with the international research centers to hold workshops for the faculty members in Saudi universities concerned with training them on how to practice strategic thinking skills and systems intelligence in management.

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APPENDIX

Strategic Thinking Questionnaire

Developed by: ***John Pisapia***Professor Leadership Studies Florida Atlantic University
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1. What is your Specialization?

- Scientific.
- Humanities.

2. What is your Years of Experience?

- <= (10) Years.
- > (10) Years.

When I face difficult problems, dilemmas, or decisions .

1	I suspend my judgment until I have gathered all the information.	**1**	**2**	**3**	**4**	**5**
2	I consider the results of my past decisions.	**1**	**2**	**3**	**4**	**5**
3	I try to extract patterns in the information available.	**1**	**2**	**3**	**4**	**5**
4	I decide upon a point of view. Then, I search for solutions to the problem.	**1**	**2**	**3**	**4**	**5**
5	I reconstruct the situation in my mind.	**1**	**2**	**3**	**4**	**5**
6	I define the entire problem before breaking it down into parts.	**1**	**2**	**3**	**4**	**5**
7	I choose the first solution that comes into my mind.	**1**	**2**	**3**	**4**	**5**
8	After the situation was resolved, I thought about how I handled it.	**1**	**2**	**3**	**4**	**5**
9	I look for fundamental long-term corrective measures.	**1**	**2**	**3**	**4**	**5**
10	I look at the Big Picture before examining the details.	**1**	**2**	**3**	**4**	**5**
11	I usually find more than one explanation for the way things work.	**1**	**2**	**3**	**4**	**5**
12	I investigate the cause before taking action.	**1**	**2**	**3**	**4**	**5**
13	I look for opposing points of view and opinions.	**1**	**2**	**3**	**4**	**5**
14	I reconstruct the situation in my mind.	**1**	**2**	**3**	**4**	**5**
15	I create a plan to solve the problem first, and then I consider the points of view of others.	**1**	**2**	**3**	**4**	**5**
16	I ask myself, “how do the dots connect in this situation?”	**1**	**2**	**3**	**4**	**5**
17	I focus on ideas that were not previously considered.	**1**	**2**	**3**	**4**	**5**

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18	I try to understand how and why a situation worked out after it was resolved.	**1**	**2**	**3**	**4**	**5**
19	I look for fundamental changes in the organization's structure that could lead to significant improvements.	**1**	**2**	**3**	**4**	**5**
20	I connect the current problem to my personal experiences.	**1**	**2**	**3**	**4**	**5**
21	I try to understand how the people in the situation are connected to each other.	**1**	**2**	**3**	**4**	**5**
22	I try to understand how the facts in the situation are related to each other.	**1**	**2**	**3**	**4**	**5**
23	I insist on my first impression even after other alternatives are identified.	**1**	**2**	**3**	**4**	**5**
24	I look for facts that are being overlooked.	**1**	**2**	**3**	**4**	**5**
25	I thought about why I succeeded or failed after the situation was resolved	**1**	**2**	**3**	**4**	**5**

Systems Intelligence Questionnaire

Developed by: Rauthmann, J (2010) A Trait-SI scale (TSIS)

1	I perceive myself as part of a whole.	**1**	**2**	**3**	**4**	**5**
2	I am usually aware of my surroundings and its influences on me.	**1**	**2**	**3**	**4**	**5**
3	I have an intuitive feeling for unspoken things	**1**	**2**	**3**	**4**	**5**
4	I am usually not quite aware of the impact of my actions on my surroundings	**1**	**2**	**3**	**4**	**5**
5	I feel as part of a bigger system.	**1**	**2**	**3**	**4**	**5**
6	I observe my own interdependence within my surroundings.	**1**	**2**	**3**	**4**	**5**
7	I have difficulties seeing things from different perspectives	**1**	**2**	**3**	**4**	**5**
8	I am very well aware that I live and interact within a complex and dynamic system.	**1**	**2**	**3**	**4**	**5**
9	I can easily adopt the perspective of other people and "feel" what they are thinking and feeling.	**1**	**2**	**3**	**4**	**5**
10	I perceive myself as part of a whole, the influence of the whole upon myself, as well as my own influence upon the whole.	**1**	**2**	**3**	**4**	**5**
11	I would not describe my thinking as "holistic" and "intuitive".	**1**	**2**	**3**	**4**	**5**
12	I often ponder on my thoughts, feelings, intentions, and actions.	**1**	**2**	**3**	**4**	**5**
13	I would describe my thinking as quite "complex" and"interwoven".	**1**	**2**	**3**	**4**	**5**
14	I usually have no problems dealing with difficult and complex problems when going them through step by step in my mind	**1**	**2**	**3**	**4**	**5**
15	I am not a very self-reflexive and thoughtful person	**1**	**2**	**3**	**4**	**5**
16	I often ponder on others' thoughts, feelings, intentions, andactions	**1**	**2**	**3**	**4**	**5**

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17	I often think about my role in my surroundings.	**1**	**2**	**3**	**4**	**5**
18	I envision and identify productive ways of behaviour in my mind if confronted with complex problems.	**1**	**2**	**3**	**4**	**5**
19	My thinking is very action-oriented.	**1**	**2**	**3**	**4**	**5**
20	I am a very reflexive person.	**1**	**2**	**3**	**4**	**5**
21	I am able to manage most of my everyday activities successfully.	**1**	**2**	**3**	**4**	**5**
22	I can adapt to varying situations quite flexibly.	**1**	**2**	**3**	**4**	**5**
23	I can influence my surroundings, be they living or not.	**1**	**2**	**3**	**4**	**5**
24	When confronted with complexity, I persevere until I havefound a productive solution.	**1**	**2**	**3**	**4**	**5**
25	I exercise productive ways of influence within my surroundings.	**1**	**2**	**3**	**4**	**5**
26	I have difficulties adjusting my thoughts, feelings, and actions to my surroundings and situations.	**1**	**2**	**3**	**4**	**5**
27	I usually cannot influence much in my surroundings	**1**	**2**	**3**	**4**	**5**
28	I tend to just do things right.	**1**	**2**	**3**	**4**	**5**
29	I do not give up until I have achieved my goal.	**1**	**2**	**3**	**4**	**5**
30	I sometimes have the feeling that there is not much what Ican influence by my own actions.	**1**	**2**	**3**	**4**	**5**

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