Influence of Appreciative Intelligence and Innovation Factors on Innovation: An Empirical Study

M. Vishwanath Pai ^{1&2}, & P. S. Aithal ³

 HOD of Computer Science, M. G. M. College, Udupi – 576102, India.
 Post-Doctoral Fellow, Institute of Engineering & Technology, Srinivas University, Mangalore - 575 001, India.

ORCID ID: 0000-0002-2995-8947; Email: <u>vish_pai@yahoo.com</u>

³ Institute of Management & Commerce, Srinivas University, Mangalore - 575 001, India.

OrcidID: 0000-0002-4691-8736; E-mail: <u>psaithal@gmail.com</u>

Area/Section: Innovation Management. **Type of the Paper:** Empirical Study.

Type of Review: Peer Reviewed as per COPE guidance.

Indexed in: OpenAIRE.

DOI: https://doi.org/10.5281/zenodo.6961413

Google Scholar Citation: IJMTS

How to Cite this Paper:

Vishwanath Pai, M., & Aithal, P. S., (2022). Influence of Appreciative Intelligence and Innovation Factors on Innovation: An Empirical Study. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, 7(2), 70-84. DOI: https://doi.org/10.5281/zenodo.6961413

International Journal of Management, Technology, and Social Sciences (IJMTS)

A Refereed International Journal of Srinivas University, India.

CrossRef DOI: https://doi.org/10.47992/IJMTS.2581.6012.0211

Received on: 10/06/2022 Published on: 03/08/2022

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ABSTRACT

Purpose: Innovation is a critical factor for everlasting success of an organization. Innovation factors along with Appreciative Intelligence are the essential characteristics an organization should have to tread upon the path of successful innovation. Every organization follows some processes, protocols and practices for the day to day and long term operations. Some practices form an important aspect for the success of an organization. Certain practices followed become critical characteristics to beat the competition. Bench marking is always very important to know the strength and weakness of an organization. Thus every organization should know their potential in innovation curve. Since the components of Innovation factors and Appreciative Intelligence are both tangible and intangible, measuring the influence of each of them is not linear. A specific tool developed by me is used for this purpose. The result is analysed to reveal the innovation capability of an organization. Depending on the result measures can be taken by the organization to enhance their innovation potential.

Design/Methodology/Approach: Companies belonging to different sectors are contacted and the online tool is circulated among the employees to give the details. The details given are analysed with another tool.

Findings/Result: Based on the data received from the tool developed which has components of both Innovation Factors and Appreciative Intelligence the Innovation capability of the organization is inferred. It is found out that an organization which has imbibed the characteristics of Innovation factors and Appreciative Intelligence are more Innovative and successful.

Originality/Value: The tool developed can be used to benchmark an organization on their Innovation Capability and to improve if need be.

Paper Type: Empirical Research

Keywords: Innovation Factors, Appreciative Intelligence, Tangible and Intangible Factors, ApI² Factors model, Appreciative Intelligence-Innovation Factors

1. INTRODUCTION:

Innovation is generally composed of two parts and they are: (1) an invention or proposing a new idea, (2) conversion of that invention or the idea into a successful business application that is useful to society. Innovation is by and large the result of multidimensional complex factors. Innovation is the secret for the everlasting success of an organization to beat the competition and to sustain the growth and revenue. Innovations will have the significant influence on the means by which the things are being carried out. Innovations will lead to change in life style. History has proven that the organizations which were not innovative have perished besides being the leader in their respective segments. Researchers have indicated that competition and demand are the important aspects in driving innovation. Innovations may lead to new or enhanced products, processes, protocols or the services. It is also understood that various attributes both tangible and intangible have significant influence on innovations. These attributes will have different types of characteristics. The quantum of influence of various types of attributes on

innovations also varies. The attributes responsible for innovations are not just internal to the organizations but also external in nature.

Visualizing a situation and understanding its impact on the surrounding environment is predominantly a human characteristic. Accepting the challenge and making an idea successful removing the existing obstacle is an important aspect of Appreciative Intelligence.

According to James M. Utterback 1994 [1], opportunity is abundant in the initial phase of a new product. In the beginning, no company is dominant. There may be competing variants of a product, but the pace of innovation and experimentation accelerates as the numbers of companies get enhanced.

According to Cooper and Schendel 976 [2], the established organizations generally give more thrust and concentrate their older generation products even though they may adopt the new technology. By this strategy, the incumbents can take the old generation product to a higher performance level but not able to match the new generation's disruptive, innovative products. The knowledge and capabilities of the existing established companies are embedded in their processes and structure, the change needed to adapt to innovation becomes obsolete. Thus the companies will start losing their market leadership.

According to Isaksen, S., & Tidd, J. 2006 [3], a positive attitude of "doing" creates an innovative environment and the image of the organization and region is enhanced. Creativity, the spirit of innovation and motivation level of the critical mass is vital in an innovative environment. Innovation factors and Appreciative Intelligence are the way ahead for an organization for sustainable, successful existence.

2. RELATED WORKS:

2.1 Importance of innovation:

Innovation is vital to all organizations to survive and to be successful. Knowledge management is a significant factor in the present competitive environment. In the present-day knowledge-driven economy, the best possible use of knowledge can drive faster, needy innovation for any organization. Knowledge can be best managed by an excellent Human Resource department of an organization. The principal role of the HR department is to keep the employees motivated, inspired and to build the team spirit to drive the organization towards innovation.

According to Frank A. Andriesse 1994 [4], the Project Start-Up (PSU) is identified as principal management instrument to build an atmosphere of mutual belief and understanding, help to build a synchronized working atmosphere, bring down the walls within organization and reduce time to market. In any organizations product portfolio, a right mix of incremental and radical innovations surely gives it a competitive advantage over the others [5], [6].

Therefore, to survive the competition and successful, the organizations must do away with obsolete practices and continuously learn new practices or systems [7]. Thus an organization which inherently has the dynamic capability to integrate, shape and reconfigure various internal and external resources to face the fast changing environments will be successful [8].

Disruptive innovation has many dimensions, and it has the power of unseating of existing technologies, products and services [9], [10] which is shown in Figure 1.

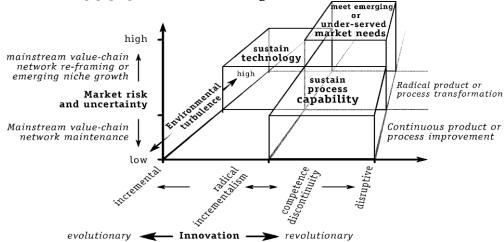


Fig. 1: The innovation, environmental turbulence and market risk and uncertainty dimension associated with disruptive innovation diffusion [9], [10]

According to Brian S. Cumming 1998 [11], various factors which are about the management and the environment in the organization is essential for innovation. Various studies have shown that different elements are responsible for innovation. The studies have also shown that various factors also have a significant influence on the successful implementation of any idea which results into innovation. Creativity is an essential component of innovation. Without creativity, innovation will not take place. Thus it is inferred that the following are the three necessary steps which are required to be followed for successful innovation: (1) Generation of an idea (2) Successful development of an idea into a useful concept (3) Successful application of concept which will result into innovation. Figure 2 summarizes the factors that will have a positive influence on each of the three steps listed above.

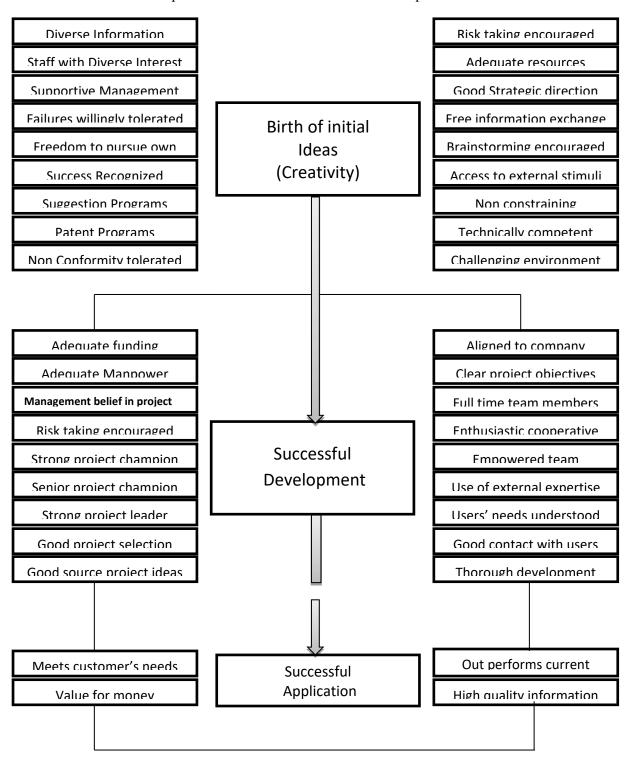


Fig. 2: Summary of factors having a positive effect on each of the three steps [11]

2.2 Role of Appreciative Intelligence:

Appreciative Intelligence is the competence of an organization, in turn the persons of the organization to visualize and see through a great prospect of any situation to realize the objective. Research has shown that capability to reframe the conditions, understand the positive aspect, and visualize the happenings to get into success is the required attributes of an individual having Appreciative Intelligence.

Persons with Appreciative Intelligence consider themselves as the part of the situation and environment so that they can feel the ground realities and find out the steps needed to achieve the objectives. It is basically the surroundings within which they exist will drive their deeds and actions [12].

A model must be created with the understood characteristics of a given environment. Focus must be entrusted upon important aspects. Different actions must be tested with the model instead of responding to the environment [13].

3. OBJECTIVES:

- (1) To identify the practices that lead to Innovation
- (2) To identify the characteristic of Appreciative Intelligence supplementing innovation practices
- (3) To identify and compare the practices followed by organizations leading to successful Innovations

4. METHODOLOGY:

An instrument – a survey form of my earlier research updated with the Appreciative Intelligence tinge and other components of Innovation Factors is used to identify the practices followed by different organizations. The collected data corresponding to practices is used to do a comparison among the organizations. This comparative study is used to infer on the innovativeness of the organizations.

5. INFLUENCING FACTORS ON INNOVATION:

According to Bordia et al. 2004 [14], innovation is naturally an activity which involves various actors, when it works well, creates a constructive pressure between the competing objectives of:

- Cost of development
- Product performance
- Value of the product
- Quality of the product
- Time to market product

Organizational structure is one of the essential aspects of innovation. The role and functions and authority of different levels of the persons will also have a positive influence on innovation. To have better performance companies often look into their structure and change it as required.

DNA of an organization determines how an organization will function just like nature's DNA. Following are the four organizational dimensions when combined in various ways define the DNA of an organization which is also shown in Figure 3.

- Structure
- Decision rights
- Motivators
- Information

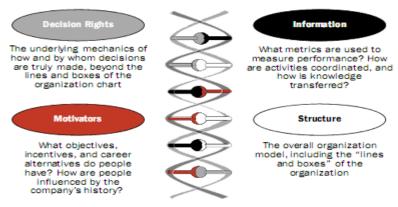


Fig. 3: Building Blocks of Organizational DNA [15]

According to Gustavo Manso (2011) [16], flexible and responsive structures which have communication independence without having rigid functional area and that allow interaction among the persons in the organization are required. This special structure enables the sharing of practical experience and interaction among the stakeholders which results in the development of knowledge leveraging the innovative capacity of the organization [17]. This kind of configuration of the organization would also be ready enough to handle events, as defined by Zarifian (2001)[18] – that is, to deal with any eventualities in the innovative environment.

Although there is no predefined organizational structural model for innovative environments, several authors – such as [19], [20], [21] have discussed organizational features of companies operating in such environments. The consensus among them seems to be as follows:

- Flexible organizations which are capable of responding to unforeseen environmental changes
- Interaction and communication among employees of different departments
- Greater decision making responsiveness
- Flexibly defined roles.

According to Bordia et al. 2004 [14], leaders of different levels must be suggested to motivate the employees to be innovative in all respects. It should not be construed as the responsibility of the senior management level. However, the senior leadership should be instrumental in providing all the necessary support, infrastructure, freedom and autonomy to drive innovative activity throughout the organization. Customer and employee participation in innovation-related processes, not getting deterrent from failures but learning from it, rewarding creative effort- all these could be significant elements of the organizational culture which will contribute to support the innovation in all the spheres of the organization.

A positive environment must exist in organizations to make the working interesting, flexible. Employees must be motivated and developed to make them competitive in ever-changing dynamic situations [22].

Different studies have identified various factors as listed below be the behaviours of the leadership, which will have a positive influence in enhancing innovation capabilities in employees and they are:

- Encouragement of risk taking
- An open style of communication
- Collaborative and participative style
- Giving freedom and autonomy
- Support for innovation (verbal and enacted)
- Constructive feedback
- When the employees feel the support from their managers on innovative activities then, they are more likely to be more creative and active on such activities [23].
- An innovation capability of an organization combines the efficiency of the mainstream with the creativity of the new stream. This is achieved with the help of the knowledge base of an organization [24].
- It is amply clear from the model shown in Figure 4 that the innovation capability powers the new stream. The innovation capability enables the new stream to contribute towards developing potential innovations that can be carried into the mainstream. This is an important mechanism which leads to the self-renewal within the company and its products.

Both tangible and intangible kind of inputs is responsible for innovation activities. The inputs which have a cost and physical embodiment are referred to as tangible and those inputs which do not have any physical form is referred to as intangible inputs [25], [26], [27].

Few of the tangible and intangible inputs are listed below:

- Tangible inputs:
 - ➤ An infrastructure of Information and communications technology
 - R & D Facility
- Intangible inputs:

- > Patents
- Databases
- > Progress in the R&D
- Processes of Organization
- ➤ Skills & knowledge embodied in the workforce

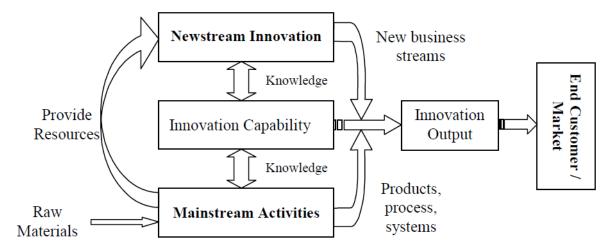


Fig. 4: An Integrated model of innovation [24].

6. CHARACTERISTICS OF APPRECIATIVE INTELLIGENCE AND ITS IMPACT:

Perseverance, acceptance to uncertainty, spirit to face difficult situations, trust, and confidence in activities of everyone are the salient qualities of the person who is having Appreciative Intelligence. Visualizing the future and identifying the success path to realize the objective is an apt quality of the person with Appreciative Intelligence. They will have the trait to identify various aspects pertaining not only to their organization but also outside the organization. Another important quality is to identify the prospective linkage between the present scenario and the future. The present scenario is an important attribute to achieve the objective.

A judgment by the professional community or the opinion makers is an important aspect in considering an idea to be brilliant. Likewise, a concept is considered as innovative when the persons behind the notion succeed in getting the customers to value and judge the concept, service, process, or product as innovative.

Professionals with Appreciative Intelligence have the capability to reaffirm the present condition and to achieve an affirmative future realization which can be reached through present tools, ideas and resources.

Considering an example, it is not the market research that has predicted the requirement for digital cameras, flash drives, microwave ovens, Internet, etc but the market was created by introducing such products or services [28].

"Anticipatory reality" [29] is the practice of imagining through the future as if it has existed already. This helps in envisaging the difficulties may have been encountered during the realization of the objective.

Recreation, reorganization, distinguish, envisage, destroy several myths, being positive are the capabilities of the persons who have Appreciative Intelligence [12].

Imagination is the principal component of Appreciative Intelligence. Application of imagination with creative tinge to it will result into innovation.

7. INFLUENCE OF APPRECIATIVE INTELLIGENCE AND INNOVATION FACTORS (API^2 FACTORS) ON INNOVATION :

Research carried out by [30] has identified salient innovation factors which have a significant influence on innovation. Empirical research is continued to identify few other factors with Appreciative Intelligence tinge to it.

A survey on Appreciative Intelligence and Innovation Factors (ApI^2 Factors):



Following survey form, components of which are also sourced from [30] is sent to various organizations to get the response.

Table 1: Components of the Survey form $(ApI^2 \text{ Factors})$

Note: Please do answer the following questions about your company to the best of your knowledge.

This research is to assess the Innovation capability of any organization.

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S. No.	Questions	
1	Name of the organization	
2	Type of the organization a) Product b) Service c) Product & Service d) Other	
3	Category a) Information Technology b) Other than IT	
4	You are a) Owner, Chairman, Director in the Board, CEO, CTO etc. b) Vice President, Director, Manager etc. c) Individual Contributor d) Any Other	
5	Whether experience of an employees is given adequate weightage in the form of regular promotions? a) Yes b) No	
6	Whether experienced employees are used for training the fresher? a) Yes b) No	
7	Whether a platform is provided to share the knowledge of experienced employees? a) Yes b) No	
8	Whether "Can-do" approach prevails and supported? a) Yes b) No	
9	"That's not my job!" attitude does not appears in the organization? a) Agree b) Disagree c) Sometimes NO	
10	Level of self-motivation of the employees? a) High b) Medium c) Low	
11	Whether the team member is given an opportunity to share his idea? a) Yes b) No c) Not Always	
12	Whether open, honest communication encouraged among the employees? a) Yes b) No c) Somewhat Yes	
13	Whether individual contributions in the team are recognized? a) Always b) Often c) Sometimes d) Never	
14	Incentive given in the form of	

) Manager Description
	a) Monetary Benefits
	b) Recognition
	c) Other
	Organizational structure
15	a) Horizontal
	b) Vertical
	c) Hybrid
	Whether a platform is given to present new creative ideas?
16	a) Yes
	b) No
	Whether moral & materialistic support given to innovators?
17	a) Yes
	b) No
	Support to failed innovations/innovators
18	a) Given
	b) Not Given
	Whether the company has R&D department?
19	a) Yes
	b) No
	Whether the company has external R & D Cooperation?
20	a) Yes
	b) No
	Whether patents, databases & papers generated?
21	a) Yes
	b) No
	Whether the company focuses closely on their competitors intense competition?
22	a) Yes
	b) No
	Whether the company monitors industry and market structure change?
23	a) Yes
	b) No
	Whether the company follows fast product life cycle with shorter time span?
24	a) Yes
	b) No
	Company is flexible, responsive and not bureaucratic to adapt to technology changes?
25	a) Agree
	b) Disagree
	Whether the company uses external technology sourcing linkages like licenses,
25	contracts, joint ventures, acquisitions, minority equity investments etc.?
26	a) Yes
	b) No
	Whether Regular training from external resource takes place to enhance skill set?
27	a) Yes
	b) No
	Whether the Company has any membership with industry body/ technical institution/
20	journals?
28	a) Yes
	b) No
	Whether the employees allowed to attend the conferences, write papers in journal
20	etc.?
29	a) Yes
	b) No
	Whether flexible work timing available?
30	a) Yes
	b) No
L	

	Whether work from anywhere facility available in normal conditions?
31	a) Yes
	b) No
	Whether common place available where everyone can gather and discuss, play, have
22	fun?
32	a) Yes
	b) No
	Whether the company conducts an ongoing, sophisticated analysis of their
22	competitors potential action?
33	a) Yes
	b) No
	Whether the company uses tools such as SWOT analysis, PEST analysis, BCG
2.4	matrix, 4P s, Porter's five forces, etc. for strategic planning?
34	a) Yes
	b) No
	Whether various innovations are exhibited in the company premises with the details
25	of the innovators?
35	a) Yes
	b) No
	Whether any interaction session is provided with the innovators?
36	a) Yes
	b) No
	Whether customer feedback is gathered?
37	a) Yes
	b) No
	Whether customer feedback is processed?
38	a) Yes
36	b) Sometimes
	c) No
	Whether customer involvement sought in the new kind of activities (Product
	Development, New Services etc.)?
39	a) Yes
	b) Sometimes
	c) No
	If an idea is challenging-What is your approach?
40	a) How to make it successful
70	b) Analyzing its chances of failure
	c) Shelve the idea altogether

Table 2: Scholarly contribution in the field of Innovation factors and Appreciative Intelligence

Sl. No.	Contribution	Reference
1	Opportunity is abundant in the initial phase of a new product, the pace of innovation and experimentation accelerates as the numbers of companies get enhanced.	James M. Utterback (1994). [1]
2	The established organizations generally give more thrust and concentrate their older generation products even though they may adopt the new technology but not able to match the new generation disruptive, innovative products.	Cooper and Schendel (1976). [2]
3	A positive attitude of "doing" creates an innovative environment and the image of the organization and region is enhanced.	Isaksen, S., &Tidd, J. (2006). [3]

4	The Project Start-Up (PSU) is identified as principal management instrument to build a synchronized working atmosphere, bring down the walls within organization and reduce time to market.	Frank A. Andriesse (1994). [4]
5	In any organizations product portfolio, a right mix of incremental innovations surely gives it a competitive advantage over the others.	Gupta et al. (2006). [5]
6	To survive the competition an organizations must give thrust to radical innovations.	Chao and Kavadias (2008). [6]
7	Therefore, to survive the competition and successful, the organizations must do away with obsolete practices and continuously learn new practices or systems	Moenaert and Souder (1996). [7]
8	An organization which inherently has the dynamic capability to integrate, shape and reconfigure various internal and external resources to face the fast changing environments will be successful.	Teece et al. (1997). [8]
9	Disruptive innovation has many dimensions, and it has the power of unseating of existing technologies, products and services	Hall and Vredenburg (2003). [9]
10	Existing technologies, services and products can become obsolete because of disruptive innovation	Thomond and Lettice (2002). [10]
11	Various factors which are about the management and the environment in the organization is essential for innovation	Brian S. Cumming (1998). [11]
12	Person with Appreciative Intelligence will draw the action by considering the environment	Thatchenkery, T. (2009). [12]
13	A model based action is needed instead of responding to the environment.	Simon, H. A. (1991). [13]
14	Innovation is naturally an activity which involves various actors, when it works well, creates a constructive pressure between the competing objectives of various attributes of a product	Bordia et al. (2004). [14]
15	DNA of an organization determines how an organization will function just like nature's DNA.	Rakesh Bordia, Eric Kronenberg, David Neely (2005). [15]
16	Flexible and responsive structures which have communication independence without having rigid functional area and that allow interaction among the persons in the organization are required.	Gustavo Manso (2011). [16]
17	Interdepartmental communication enables the sharing of practical experience and interaction among the stakeholders which results in the development of knowledge leveraging the innovative capacity of the organization	Jensen et al., (1998). [17]
18	Structure of the organization which is ready enough to handle any eventualities will be successful	Zarifian (2001). [18]
19	Flexible organizations which are capable of responding to unforeseen environmental changes is needed	Brown and Eisenhardt (1997). [19]
20	Interaction and communication among employees of different departments is essential	Hatchuel and Weil (1999). [20]
21	Greater decision making responsiveness and flexibly defined roles are required	Worley and Lawler III (2011). [21]

22	A positive environment must exist in organizations to make the working interesting, flexible	Dauda, Yunus Adeleke (2010). [22]
23	When the employees feel the support from their managers on innovative activities then, they are more likely to be more creative and active on such activities	Janssen, 2008. [23]
24	Innovation capability of an organization is achieved with the help of the knowledge base of an organization.	Cohen & Levinthal, (1990). [24]
25	Both tangible and intangible kind of inputs is responsible for innovation activities	Jarboe and Furrow (2008). [25]
26	An infrastructure of ICT and R & D Facility is an example for tangible inputs.	Blair and Wallman (2001). [26]
27	Patents, Databases, Skills of the workforce are the few of the example for intangible inputs.	Lev, (2000). [27]
28	Management structure and its role is an important aspect.	Prahalad, C. K. (1995). [28]
29	Employee and interactions and skill sets are important to organizations	David L. Cooperrider (1990). [29]
30	Attributes which have significant influence have different characteristics.	Vishwanath Pai, M., Mayya, S., & Joshi, H. G. (2019). [30-31]

8. RESPONSES ON *API*² FACTORS MODEL FROM VARIOUS COMPANIES FOR SUCCESSFUL INNOVATION:

The responses about the practices followed in 5 companies are collected using Survey form shown in Table 1 (ApI^2 Factors). The result of the responses is tabulated in Table 3. It is also portrayed with the graph shown in Fig. 5. It is evident from the result that innovation capability of any organization depends on the Innovation Factors and traits of Appreciative Intelligence. The maximum numerical value corresponding to the influence of Appreciative Intelligence and Innovation Factors (ApI^2 Factors model) is calculated as 19 by using the mathematical model developed through my earlier research and applied on the ApI^2 Factors model. Thus higher the value, and capability of the organization to innovate, sustain and emerge successful is more. So Company based in Mangalore (IT Sector) has the highest ApI^2 Factors value (18.1) and the Company based in Udupi (Marketing) has the lowest ApI^2 Factors value (12.84) and it has the scope for improvement.

Table 3: Result of quantum of Influence of Innovation Factors and Appreciative Intelligence

Sl. No.	Company	Quantum of influence of Innovation Factors and Appreciative Intelligence
1	Company Based in Mangalore (IT Sector)	18.1
2	Company Based in Udupi (Marketing)	12.84
3	Company Based in Bangalore (Product & Services)	15.84
4	Multinational Based in Bangalore	16.83
5	Company Based in Bangalore(Non IT)	14.5

9. CONCLUSION:

Through the literature review and the empirical study, it is shown that the organization those who have embodied within them the innovation factors and the features of Appreciative Intelligence have contributed to the success of the organizations. The practices listed in the survey form are responsible for an environment which motivates the stakeholders to think differently. The way of doing things differently will lead to the successful innovative products, service or processes. Following the practices listed contributes positively to the surrounding environment also.

Thus it is understood that Innovation is the secret to the everlasting success of any organization. The sustained growth is needed for the survival amidst competition. So it is concluded that the organization which follows the practices listed in the survey form and having salient features of Appreciative Intelligence (Table 1) will be able to achieve the objectives successfully identifying and surpassing all the difficulties and innovate.

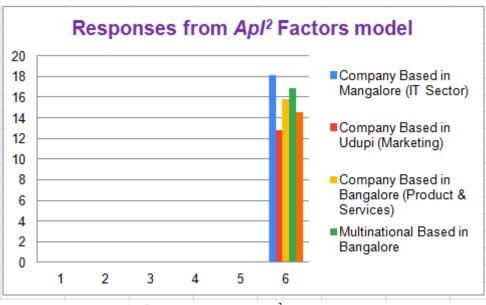


Fig 5: Responses from ApI^2 Factors model

10. FUTURE SCOPE:

Researchers are not able to find out the quantum of Appreciative Intelligence in the organization in spite of abundant research although it is understood that it is the most important factors which leads to innovation. Thus the research may be continued to identify and to create the tools to measure the quantum of Appreciative Intelligence in an organization and to enhance it.

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