Investigating the contribution of leadership “transformational and transactional” to innovation in technology sector

(Case study approach)

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Abstract

This research paper identifies ‘Transformational and Transactional’ leadership and its contribution towards managing innovation in the technology sector in Ireland. This research has a case study approach of IBM and SAP, and the methodology used to collect the primary data is via qualitative. The conceptual framework have been created by using mixed contemporary models e.g. the added impact of transformational leadership model, innovation process model, and embodiment of situational leadership. These models have fused in conceptual framework to concentrate on the research goals. Keeping in mind the end goal to study and to actuate rich data understanding, six top executive meetings have been held with senior innovation leaders in IBM and SAP. Narrative data analysis has been practiced to support the research objectives and to figure out the reliable and practical findings. Research findings demonstrates that both initiatives - transformational and transactional, have huge contribution to innovation in technology division. while managing innovation process; every leaderships has reasons and means to practice taking into account the given circumstances and environment they work; innovation leaders predominantly start their innovation project under transformational leadership, however, they drastically change their way to transactional leadership when they face difficulties and vulnerability. Research findings raised that, transformational leadership adds to articulate vision and transactional leadership add to accomplish that vision through micro-planning and execution.

Keywords: Innovation, Contribution, Leadership, Transformational, Transactional, Innovation management, Innovation process models, Vision, Conceptual framework (CF).
1.0 Introduction

According to IDA Ireland CEO Martin Shanahan, Ireland is second Silicon Valley owing to infrastructure provide for birth of innovation in this country (IDA-Ireland 2014). Innovation is doing new things, creativity is thinking new things and invention is new physical birth due to necessity(Freeman 1982a). Albert Einstein said, ‘If you always do what you always did, you will get what you always got’(Forbes 2013). Henry Ford said, if I would ask people what they want, they would say faster horses. Henry launches T-Model car in 1920 quite different engineering design then what General Motor was doing (Allen 2012). Innovation is driven by the ability to see connections, to recognize opportunity, devise vision and take advantage of them (Innovation Management 2014). Ryan Brothers founded Ryanair in 1985; it was first airways in Ireland and low-cost in Europe, Ryanair transformed the way airlines industry operate several people in Europe comment that Ryanair is like Wall-Mart (Casestudy-Raynair 2010). Innovation distinguish between a leader and a follower, claim made by Steve Job, founder of Apple (Forbes 2013). He said it correctly because innovation is not all about how much budget you have to invest in R&D but it is key part of how creative and innovative people you have in organization and how they led. For instance, when Apple launch the Mac in market IBM was investing 100 times more money on R&D (Forbes 2013). Consequently, moving fast and breaking rules is sign of innovation, unless you breaking stuffs, you are not moving fast enough, thought shared by Mar Zuckerberg developer and founder of Facebook (Martin 2014).

Essentially, above paragraph represent the relationship of leader contribution to innovation via visioning, planning, building, supporting and championing innovation. Each given example has rational with this research paper topic, purpose and objectives. Innovation is process of search, select, implement and capture this is not one day job depends on the innovation type and size it takes well-off time. For instance Henry Ford struggled above 1 decade to launch his first car model in market, likewise it takes more than 10yrs for Dyson to launch his bag-less vacuum cleaner in market(Jansen et al. 2009; Lynch & Lynch 2008). Because they were critically lacking the leadership approach to turn invention into innovation, working as lone innovators instead leading innovation as a collective process, later they become champions. In each innovation project
leadership have significant contribution via abreast of many elements such as - influencing subordinates, finding pathway, formulating vision and mission, sharing objective and setting goals, motivating to team, empathetic approach, emotional intelligence, task allocation, problem solver and risk taker, mentoring, coaching and so on. Previous research in area of leadership contribution to innovation largely shows that transformational leadership have been dominance and facilitate organizations to drive and manage innovation. Whereas recently researchers begun to investigate, identify, explore and justify that transactional leadership have contribution to innovation as well. Consequently this research paper objectives and purpose is to investigate the leadership contribution to innovation in technological sector in general and IT Company in specific.

1.0.1 Topic Description:
The research area I am focusing is “Leadership and Innovation” topic for MBA in Information System dissertation is:

Investigating the contribution of leadership ‘transformational and transactional’ to innovation in technology sector!

Innovation is fundamental element for a successful business. Since the globalization have facilitated organizations to integrate and collaborate via geographical and economic territories innovation got the wings to change the traditional business format worldwide and innovation is key driver. Thus, innovation has become the limelight focus for those organization who can rationally predict the future business environment and use of technology for driving innovation and produce what market needs and also beyond the customer's imagination and revolutionized. Such paradigm and disruptive innovation may stem from creative individuals but cannot manage and implement without leadership and management support. This research is dealing how leadership contributes to innovation process and when and why leaders change their leadership approach to ensure successful innovation outcome.

1.1 Investigating the contribution of leadership ‘transformational and transactional’ to innovation in technology sector

Undoubtedly area of innovation has become a centric factor for organization to attain sustainable competitive advantage. The research in area of innovation shows that leadership has great impact on innovation; in addition several researches have shown that leadership is crucial to drive innovation (Tidd & Bessant 2013). However, majority of research’s findings indicates that
transformational leadership is fundamental element to build the climate, facilitate organization culture, provide the resources to drive and manage innovation process. Whereas others study begun to ponder and skeptical about these findings and they added that because innovation differ and have different types such as - Tidd and Bessant (2003) described ‘the 4Ps’ innovation - paradigm, product, process and position, leaders needs to adopt and alter their leadership KSAs and these researchers said transactional leadership is also pivotal and do have significant contribution to manage innovation.

Therefore this research purpose can describe as follows:

1. To **Identify** and **explore** the contribution of leadership ‘transformational and transactional’ to manage innovation process.
2. **When** transactional leadership applied by innovation leaders while managing innovation process.
3. **Why** innovation leaders use transactional approach while leading and managing innovation process.
4. **Whether** transformational leadership is more effective then transactional leadership or they are equally practices to manage innovation, but transformation got attention and transactional not.

In this research paper the researcher will concentrate on leadership and innovation area in general perspective. And in particular focus and ascertain that, whether transformational leadership is effective for innovation process throughout innovation process stages – search, select, implement and capture or transactional leadership. This research primary focus is to identify and explore the contribution of transactional leadership to innovation process compared to transformational.

### 1.2 Research Objective

This research paper objective is as follows:

- To explore whether transformation leadership is more effective than transactional leadership at managing innovation process.
- To ascertain *when* and *why* leadership approaches changes while managing innovation process.
To identify the dynamic leadership approach is particularly relevant with any innovation stages or its remains same throughout innovation process.

1.3 Interest in Research
The researcher’s interest to study this area is to enhance knowledge in the field of innovation management. I am very much ambitious to conduct this research and add my contribution in innovation and leadership area via generating reliable and realistic findings because contemporary and current studies have not covered this type of research e.g. focusing two leaderships to weigh and evaluate the contribution to innovation in context of technological firms and relevance of innovation process stages.

1.3.1 Practice Perspective:
Leadership studies have illustrated several leadership styles, traits, and behaviors; the only common element in these all is characteristics of leaders by applying different characteristics leaders are showing different styles, traits and behaviors. Thus, this study is investigating the core characteristic of leaderships and its practices, and anticipating that the outcome of the research will be helpful for innovation leaders in two ways:

(i) Seeing transactional leadership as significantly effective leadership while engaging in innovation process.
(ii) Preparing organizational innovation leaders to be emergent in leadership approach to managing innovation process, because end of the game, innovation is matters.

1.3.2 Research Perspective:
Substantial research has been carried out to explain the leadership role and contribution to drive and manage innovation in general and specific context. However, only transformational leadership have been showcased as key leadership to cultivate to innovation, nurture of innovation and exploiting of innovation overall, this is the gap found because practicing and relying only one leadership style to managing innovation process is subject to investigation. Albeit, this research will be stand out potentially to finding out the contribution of transactional leadership along with transformational. Because researcher believe that leadership and innovation is phenomenal area itself. Therefore, generalizing and associating particular leadership contribution to innovation may hinder the ability of innovation leaders to manage innovation effectively. In addition, this research
is first kind of research which has initiated to identify the relationship between leadership and innovation process stages in general as separate subject.

1.3.3. Personal Perspective:
The principal significance of this research is that, the researcher will be able to enhance knowledge as a student and learner in innovation management. Furthermore, the designed conceptual framework would be tiny contribution to existing frameworks and models to critique and enhance upcoming researcher in similar area. Furthermore this study will be stepping stone for me to increase maximum knowledge in innovation management area for progressing to PhD. This research has been conducted to determine why and when leaders adopt different approach of leadership to lead innovation process and narrates whose situations which will helpful to manage innovation in best manner.

1.4 Research Limitations
This is very important that researcher should acknowledge the limitation of study. As mentioned above in research methodology and data analysis section how researcher have approaches to investigate the objective of research and his analysis. Thus following points can be the research limitations:

- This study use the source of data based on innovation leader’s experience, perceptions and knowledge. The researcher believes that these leaders have significant experience dealing, managing and producing successfully innovation via abreast of leadership characteristics. Thus can give profound insightful information.
- Indeed there could be possibility for reveres relationship in the study for example, because leaders have not done considerable preplanning to avoid problems during managing innovation process. Therefore, when they encounter unexpected problem they dealt as transactional leader.
- The data collection source is interviews with top management via in-depth interviews and will be time consuming and participant can respond lack of interest. Yet, this outcome of
research data collection with six interviews with top management and facilitate profound findings

- In-person interviews to collect data have two implications: interviewee could distort data and tend to please interviewer or interviewee could be uncomfortable to reveal the data as innovation projects kept secret.
- This very unlikely that qualitative research finding can be extended to wider populations with the same degree of confidence that quantitative analyses can. Because the findings of this research should be tested to discover whether they are statistically important or due to chance, before pass on.

1.5 Organization of Research

The illustrated structure of study below (Figure 1.0). Section 3.0 will describe sensible rationale of research design selection and choices, that is Interpretivism philosophy, inductive approach, case study strategy, qualitative data collection via in-depth interviews and narrative data analysis have adopted along with diagrams to present the findings.

Section 4.0 will be data analysis discussion and deep insight of data discussion and findings will be presented in general in bullet points at commencing of the section. Narrative analysis selection
will made this section more interesting as conversation and interpretation, although, figures and description have used for findings.

Section 5.0 is research conclusion furnishing main findings at first juncture, following with contribution, implication, and then limitation of research, after that further research recommendation and lastly personal reflection upon dissertation will be described. After elaborating the part one with its elements Introduction, Research Questions, Objective, Scope, Limitations, Organization of Study, now I proceed with part two - Literature Review.
2.0 Literature Review

2.1 Overview

This part gives a decent learning of exploration point as expressed before (Part 1). This research is to investigate and composing writing, which is to give sensible downplaying of contemporary research in same range and clarifying the crevice for leading this research. Figure 2.0 shows the structure review of segment 2.0. The researcher has characterized and talked about overseeing advancement in segment 2.2 where the reader will have a thought of managing innovation role in organizations, and the devices and systems that are utilized by the organizations. Taking after segment 2.3, it has been characterized and defined invention and innovation. Further it does clarify the nonexclusive model of innovation process and its handiness to authoritative pioneers. Segment 2.2.2 is going into research point through depicting and examining innovation methodology stages and association with leadership and supported -Via scope of sources. Leadership have characterized and depicted in segment 2.3 highlighting that if innovation is focal key for an organizations achievement, then leaders are the key master's. Segment 2.3.1 is looking in, out and all around transformational and transactional leadership and next segment 2.3.2 demonstrates the compelling key components of both leadership qualities through utilizing the added substance impact of transformational model. Genuinely segment 2.4, is going into profound talk of research objective, when all is said in done illustrating leadership commitment to innovation then particularly distinguishing and breaking down the relationship and elements of both leadership to oversee innovation process. After considerable literature review, Conceptual framework is represented in segment 2.5 by means of fused innovation methodology model, the added substance compelling transformational model, and embodiment of situational leadership model. In the last segment 2.6, Conclusion of the literature review along with the research objective is pointed out.
2.2 Innovation Management

Innovation management can be defined as managing innovation. This field has started to investigate the challenges postured by innovation. It has taken a gander at why innovation matters and opened up some point of view in what it includes. Furthermore, it has also advanced the idea
of innovation as a key process which must be managed and organized so as to empower the renewal of any organization (Tidd et al. 2001). Hamel (2006) clarifies that management innovation is an ability to lead clamorous scientific process by means of implementing control of management innovation in organizations, for example, - in 1990s Thomas Edison inventions, in GE – General Electric's Hamel has related management innovation as "development" in organizations and aggregate status to wind up innovative management itself. Author Tidd and Bessant (2013) said that, innovation management helps organizations to comprehend the needs of advancement and the way of the distinctive development types and stages, it also encourages to know important tools and techniques an organization ought to apply to implement the innovation, for example, – hard system approach, soft system approach, frameworks and models. Furthermore, Tidd and McKinsey studies asserted that managing innovation includes several components, for example, – knowing innovation as core business process, integral development method in corporate procedure, assembling the innovative association through imparted vision and suitable administration and others (McKinsey 2008; Tidd et al. 2001).

This research is dealing with leadership "transformational and transactional" contribution to technology, specifically innovation division, identifying how leadership is associated with innovation process stages. Before reveling into core detail of this paper it is critical to realize that, what is innovation and innovation process, its types and its dimensions, how innovation started and what element has its part. As this is premise of this research paper to investigate the area of innovation and leadership (Jansen et al. 2009; Isaksen & Tidd 2006).

2.2.1 Innovation

What is Innovation? This is critical to comprehend that innovation does not have a solitary definition. There are diverse perspectives and approaches for characterizing innovation. Albeit, as a student of information systems, I can characterize 'innovation is all about doing things in new ways, making new business opportunities which produce monetary, authorize change incrementally or radically and bring a change in the environment'. In addition to innovation management's viewpoint, innovation implies huge scale disruptive change. Though, others see as a group of smaller incremental changes to an item, process or operation (Tidd & Bessant 2013; Lynch 2006). However, authors Isaksen and Tidd (2006) said, in managing innovation people are frequently confused to comprehend the term invention and innovation, as this is vital to know, the
difference between them. Invention – alludes to the physical show of a new idea or concept, frequently ensured by a patent, e.g. Philips and Sony had created CD however Sony was secured with patent (West 1992). The term innovation is derived from the Latin word – ‘innovare’, signifying 'to make something new', exploring a successful invention (Tidd & Bessant 2013).

So as to know the more extensive and clearer comprehension let me impart the perspectives of the best of the writers and experts in the field of innovation management who have characterized innovations as follows:

According to innovation unit in UK department of trade and industry (2004) who defined innovation very simplistic manner ‘innovation is the successful exploitation of new idea’.

Author Peter Drucker (2012) said ‘ innovation is special tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or service’.
Author Michael Porter (1990) said, ‘The approach to innovation in broadest sense, including both technologies and new ways of doing things’. This leads companies to achieve competitive advantage through acts of innovation.

Entrepreneur Richard Branson (1998) said, ‘an innovative business is one which lives and breathes ‘outside the box’ it not just a good ideas, it is a combination of good idea, motivated staff and instinctive understanding of what your customers wants’

Chris Freeman (1982a) described, ‘industrial innovation includes the technical, design, manufacturing, management and commercial activities involved in the marketing of new product or the first commercial use of new process or equipment’.

The above definitions states that innovation is focal part for organizations achievement. Doing and managing innovation always matters and essentially contributes by leaders in organization (Shung Jae Shin & Jing Zhou 2003). The research of Daniel and Berkowits demonstrates a solid relationship between leaders capacity to detecting business execution and new products. For example, replacing the Sony Color HD TV with Smart TV not only increased the organizations profits in existing markets, but also additionally challenge the rivals to come up with better innovative products (Lynch 2006)

Sony HD (High Definition TV)  Sony Smart TV

2.2.2 Innovation Process Model
To do innovation and perceive earnest needs of innovation in organization, author Tidd and Bessant (2013, p.89) have endorsed a generic innovation process model which represent four stages. This is focal component for this research paper. By utilizing this model innovation leader can be ready to pursuit and welcome creative ideas into evaluation process and they can choose
the potential idea, after transform this innovative idea into reality in implement stage, innovation leader can produce financial advantages taking strategic planning and execution, which is the last stage capture (Perez 2002; Howell & Higgins 1990; Jansen et al. 2009). These four stages are not extremely basic as clarified, every stage have extraordinary understanding and significantly expanded procedures to go through. Author Denti & Hemlin (2012) prescribed that, an in-subtle element and separate research ought to complete to research and investigate the relationship between innovation process stages and leader’s capacity to plan and execution. Therefore, the core study of this paper is to explore how leadership contributed in managing innovation process and recognizing when leadership approaches changes to utilize viable initiative. Accordingly it is well worth to show about the innovation process model - stage of innovation as figure 3.0 exhibited. Organizations can utilize this generic pipe model where they can seek the opportunity through applying different tools and techniques as specified in 2.2. Shown figure 3 innovation process model is comprised of four stages - search, select, implement, and capture where organizationa; leaders can focus, develop and produce innovation.

![Figure 3.0: Innovation Process Model](image)

**Managing Innovation; Tidd and Bessant (2013, p.89)**

This is very crucial to understand that it is beyond the master’s level thesis to explain the innovation process models’ four stages in detail and identifying explicit linkage to leadership contribution. I have described best to give good idea of this model and stages, and require leadership skills to managing innovation. Innovation is generic activity; its magnitude is associated as Do or DIE. Researchers considered innovation process model as a pill to seek innovation in business as it is clearly guides how organisations can use it (Denti & Hemlin 2012). For instance, author Goffin and Mitchell (2010) have formulated several questions which will tend to stimuli organizationa; leader to ponder about innovation such as - how leaders integrate innovation strategy in corporate strategy, do organizationa; senior management involve in innovation projects,
how they monitor their competitor in terms of innovation initiator and so on. Their book *Innovation Management* explains all these four stages relationship with leadership skills and raises the awareness for development of leadership according to requirement of innovation status.

**Search and Leadership**

Search is first core element of innovation process model. Of course, this element tends to searching, scanning and monitoring the environment (internal and external) and responding to relevant signals about, threats and opportunities for innovation. This section profoundly calls research & development (Isaksen & Tidd 2006). During 1990s modern large corporations such as – Bell Labs, ICI, Bayer, BASF, Philips, Sony, Ford, Western Electric, Du Pont, all were identified and sensed the need of R&D as key element to progress in businesses and founded R&D centres as powerhouse of idea (Freeman 1982b). For example, Henry Ford and Du Pont were very focused in R&D (search) of new engineered designed car. In leadership perspective Henry Ford was a visionary and he has transformed the car industry from limited niche market to major market by offering an affordable price, this was achieved by innovation in manufacturing management.

Henry Ford, not only contributed his technical skills by designing car but he also contributed his leadership skills (Robbins 2008). On the other hand, author Zaleznik (1977) sketched the contribution of Edwin Lend as he translated technology into a product of Polaroid Camera – where customer can take a snap and instantly print their photo, which proliferate and excite customer desire. He added that, leaders consistently in search of new ideas have ability to recognise the future needs of customers or stimuli their desire. This research paper is not about explaining established fact but it is purpose is to find out how real world innovation managers and leaders employ their skills according to innovation process and relevance with its stages. For Instance, in terms of search how leaders take their approach; are they stick to their plan or they do adopt relevant approach based on different situations and stages. Traditionally innovation leaders used to search innovation in-house e.g. closed innovation, R&D. However, 21st century has tremendously changed, now innovators are emergent and buy innovation from outside or engaged in collaborated innovation ventures e.g. called open innovation (Tidd & Bessant 2013). For example Cisco adopts this open search approach and thrives in innovation whereas Lucent was lagging behind as his innovators were relying on closed search innovation (Huston & Sakkab 2006).
Select and leadership

This element presents the core innovation process model. Its involve decision making process - deciding which of the identified signals to respond and which idea needs more sensible attention and which is to be ignore, Tidd and et al (2001) and Goffin and Mitchell (2010) also discussed that these decisions need considerable time to spend in board meeting under appropriate leadership, it is involve how to build innovation plan, approaches and what tools and techniques, resources and expertise could be used to bring innovation. Moreover, Sven (2012) study shows that this area is about meeting challenges as an innovation demand for it, and it is involves uncertainty and problem solving tasks. Author Kaizan (1989) study on systematic management of continuous improvement as an incremental innovation becomes such a vital part that a large proportion of the workforce engaged in continuous innovation, this area general considers total quality management (TQM). Similarly, if organisation large workforce engaged in continuous innovation proposals then it will be difficult for leaders to manage and deal with high volume of idea such as - Kawasaki, P&G, Toyota, GM, Matsushita and GE – receive several millions of ideas per year. In addition, Vodafone and France Telecom receive approximately more than 30,000 ideas each day across the globe via their online suggestion scheme. In terms of leadership role to responding to numerous ideas P&G initiated systematic approach namely Connect and Develop (Huston & Sakkab 2006a).

Cisco invests billions in buying developed innovation instead of focusing on search and select stage (FT.Com 2011). However, leadership have significant contribution to innovation whilst designing and executing the strategic platform.

Implement and Leadership

This stage ‘implementation’ is moving from searching and selection phases to dealing with reality where leaders focus on how we translate the potential idea into reality ‘innovation’ this stage’s process involves various innovation projects, organised and managed, also explores structures, tools and systematic mechanism in place to ensure and facilitate successful innovation. Specifically focus on development of new products and services (Tidd & Bodley 2002). The process of implementation – new product or service development is piecemeal process reducing the uncertainty via series of problem solving techniques and skills. For instance, author Michael Hammer (1990)case study of Ford Motor Company (FMC) using technology to developing new
services in organisation via implementation of Business Process Reengineering (BPR). He explains how implementation process has practiced. How FMC have respond to suggestions and evaluated organizationa; internal and external resources to achieve best outcome with this innovation. Managing this stage is not a single event but requires attention to acquiring the knowledge and resources to enable the innovation, executing the project under conditions of uncertainty which require extensive problem-solving skills. This is where leadership plays vital role as implementing innovation may shake the environment of organisation (Isaksen & Tidd 2006; Euchner 2013; Tidd & Bessant 2013). In addition, Euchner (2013) qualitative research shows that without leadership support and skills implementation of innovation could not be proceed and successful. Author Krause at el (2007) study on implementation of process innovation requires interaction between leaders of innovation projects. This signifies the importance of leadership in implementation of innovation process and this research paper is dealing to identify how they interact, when and why they interact via changing leadership approach.

Capture and leadership

This area deal with different types of knowledge, innovation, performance, and intellectual property, it is also learning from progressing format where innovation management can evaluate their capabilities to organise and manage innovation process better for next time. Hence, innovation management can build its knowledge base and can improve the ways in which the innovation process and managed (Tidd & Bessant 2013). Capturing mainly represents innovation strategy how organizationa; leaders plan for innovation such as – do organisation invest in R&D, do they collaborate in joint venture, and do they acquire innovation. Robert, E (1992) studied 156 new-technology based firms and he mentioned in his book ‘Entrepreneurship in High Technology’ how leaders can build the corporate venture for innovation. Capturing is the fruit of hard work of innovation if IP has placed and knowledge has built-up and transfers within organisation (Drucker 2012; Godin 2012). In terms of leadership contribution to innovation process stages, authors Denti and Hemlin (2012), and Sven (2012) simultaneously study this area and discovered that investing in JV of innovation projects not only produce innovation but it is also enhance the skills and capability of innovation management via know-hoe and knowledge transfer. Furthermore, taking strategic decision by leaders can lead organisation to outperform their rivals, for instance, CISCO is investing and focusing on joint ventured with new technology start-up and acquiring them
compared to Lucent Technology in result CISCO have acquired Lucent Technology (Chesbrough 2011).

**Conclusion**

At this stage I have clarified the innovation and innovation process stages connecting with leadership contribution in more extensive and narrower perspective. In the following segment 2.3, I have briefly portrayed the leadership contribution in organization and role of leadership in 'transformational and transactional' in detail, which will offer idea to examining the phenomena whether innovation projects connected with leadership 'transformational or transactional' have some or potential commitment as well. Therefore, this research paper is to investigate how leaders contribute and when and why leaders change their approach/methodology. Also it is defining leadership 'transformational and transactional' characterizing while looking in, out and all around. Area 2.4 is examining the leadership commitment to innovation in organization.

**2.3 Leadership**

Charles Handy (2001) said that "a leader helps and shares a vision which give direction and purpose to the followers" Baldoni (2009) said that "leadership requires action verbs and adverbs such as communication relentlessly, coach frequently and empower vigorously". Similarly, (Euchner 2013) additionally said that leadership ought to have consistent correspondence with its adherents. Bennis (1989) said that "leadership has more to do with inspiring people as to the direction and goals than with day-to-day implementation". Although, there is no unified definition, author of leadership hypotheses Northouse (2013) have characterized basic and most ideal way that, leadership is a procedure whereby an individual impacts a group of individuals to attain common goals/objectives. Leadership represents the following segments: (A) Leadership is process, (B) Leadership involves common goals, (C) Leadership entails influence, and (D) Leadership occurs in groups. In light of given definitions this implies that leadership part is pivotal in an organizations achievement/success. This likewise tells that awful leadership in organization could bring a down-fall in its rate of success and can possibly destruction of organization.
This research is dealing with leadership contribution in organization to managing innovation, particularly concentrating on managing innovation process model's stages and how leaders change their methodologies according to the occurring circumstances. Prior to analyze leadership commitment to innovation and distinguishing the stages, how about we concentrate on specific initiative (e.g. transformational and transactional), his will assist to follow research question in context.

2.3.1 Transformational and Transactional Leadership
One of the present and most well-known style that has been the focus of much research since initiation of leadership hypotheses is the transformational leadership approach. The term transformational leadership was initially instituted by Downton in 1978 (Burns 2013). Bass and Riggio (2006) said, transformational authority have a phenomenal kind of impact that excites supporters to finish work more than what is regularly expected of them. It is a process that regularly fuses with visionary and charismatic leadership (Conger & Pearce 2003). Whereas, transactional leadership alludes to the heft of leadership models, which concentrate on the exchanges that happen in between leaders and their followers/supporters (Northouse 2013). Burns (2013) have recognized both Leadership styles. For instance, a Politician is a transactional leader who guarantees during the election campaign "no increment in taxes". Likewise, Lecturers in school are also transactional while grading to a student. In contrast to transactional leadership, transformational leadership is the process where a leader makes an association that fortifies inspiration and profound quality in both leader and the supporter/follower (Conger & Pearce 2003).
Also, as its name attributes transformational leadership is a continual process that changes and transform individuals under one's leadership by means of side by side of attributes, for example, making and imparting vision; motivating, empowering and caring; values his team and morals, standing in front as face of followers; guiding towards regular objective; treating everyone equally and fulfilling their needs (Northouse 2013). Author Bryman (1986) added that transformational leadership transforms their followers, that they embrace the normal for change. Whereby, author Kellermen (1984) asserted transactional leaders drew in with followers taking into account common reliance relationship where both contributions are recognized and rewarded. (Avolio 1999) included that; transactional leadership is essentially giving what their followers/supporters are craving and picking up what a leader needs.

It is recommended that transactional and transformational leaders are two people who are not the same as one another and taking distinctive approaches (Burns 2013; Bass & Riggio 2006). For example, transactional leader will be satisfied by the unforeseen rewards, such as, holiday tours and high perks to follower/supporter on his over the long run work or achieving the target. While, transformational leader will work out of profoundly held individual values and respect, such as, trustworthiness and equity, this is unique and can't be negotiated (Bass & Riggio 2006; Conger & Pearce 2003; Burns 2013). Author Kuhnert and Lewis (1987) in their critical approach for Burns and Bass discoveries have developed a productive model of transactional and transformational leadership where they recognize the phases of both leadership and represent the relationship. They proposed one regular trademark 'mutual commitment' for both leaderships and clarify contrasts that transformational leader sense and apply this mutual commitment' on first stage, whereas transactional leader lean toward individual objective first and later acknowledge mutual commitments.

A few studies have completed on both leaderships as series of glimpse have exhibited, a few authors considered on quality and others on shortcomings, though other groups extended the theories. Amongst, Bass and Avolio (1994) and Burns (2013) studies guaranteed that transformational have attributes to apply on circumstances, moreover they portrayed transactional and transformational leadership as single continuum, and they have developed 'the additive effect of transformational and transactional leadership model. Figure 4.0 shows that both leaderships have relationship and integrative exertion's produce execution past desire.
TRANSFORMATIONAL LEADERSHIP

Idealized + Inspirational + Intellectual +

Individualized

Influence                  Motivation                  Stimulation

Consideration

 TRANSACTIONAL LEADERSHIP

Contingent Reward + Management by Expectation

Expected Performance

Outcome                        beyond

Figure – transformational leadership

Source: Adapted from “The Implications of Transactional and Transformational Leadership for Individual, Team and Organizationa; Development” Northouse (2013, p.180)

This depicted model of leadership factors is the core part for this paper which represent how both initiatives can play roles to managing innovation process model's stages in technology sector and taking into account these two models – The additive factors and innovation process model; Researcher will be formulating his own theoretical system to direct his research in more context and narrower. The study of additive effect model states that transformational style leaders have four solid factors that add value to an organizations outcome in performance, whereas transactional leaders have two factors that are productive, the outcome of this is beyond expectations in performance. Figure 5.0 represents the examples.
Figure 5.0: Transformational and Transactional Leadership’s Factors

<table>
<thead>
<tr>
<th>Idealized Influence</th>
<th>Contingent Reward</th>
</tr>
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<tbody>
<tr>
<td>This factor presents strong role of leaders for followers/supporters. They are profoundly esteemed by followers/supporters and leaders furnish them clear vision with sense of mission. Followers/supports relate to these leaders and willing to emulate them. These characteristics of leaders ordinarily have elevated requirement of ethical and moral and could be portrayed to do the right things. This is a charismatic factor.</td>
<td>This stands as an exchange process in between of the leader and follower, in which effort of follower is exchanged by specified rewards. Typically, In this relationship leader acquires an agreement with the follower for guaranteeing what needs to be done and what will be the pays off. Basically, it is the exploitation of one’s skills in return of satisfied reward.</td>
</tr>
<tr>
<td><strong>Example:</strong> Nelson Mandela, Alan Mulally (Ford Motor's CEO)</td>
<td>A decent <strong>Example</strong> is – this research paper for me as a follower in light of the fact that my mentor (leader) will give evaluation in view of my work presentation, further by knowing his/her followers abilities, leaders can exploit the aptitudes for enhancement of the organization.</td>
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<table>
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<tr>
<th>Inspirational Motivation</th>
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<td>This is descriptive of leaders, where they communicate exclusive standards from followers, motivating them through inspiration to become dedicated and key player of imparted vision in the organization. Team spirit enhanced by leaders, use of symbols and emotional appeals to concentrate on effort to achieve all the more than what their self-interest is.</td>
<td></td>
</tr>
<tr>
<td><strong>Example:</strong> Yuri Jain (VP India Unilever) (Anthony 2012)</td>
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<table>
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<tr>
<th>Intellectual Stimulation</th>
<th>MBE (Management – by – Expectations)</th>
</tr>
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<tr>
<td>This incorporates, leaders stimulate supporters to be imaginative and creative and do challenging tasks. Do make supporters trust in own-selves and give the stage to accomplished desiring results. These characteristics of leaders attempt new things to innovation while managing organizational issues.</td>
<td>This include corrective criticism, negative criticism and fortification. MBE have two structures – active and passive. A leader with active frame, works closely with the follower and corrects his/her mistakes and encourages, whereas a passive leader, does watch his/her follower work, instead of correcting their mistakes and advising the right task, he/she gives them a negative remark at the end of the task accomplishment.</td>
</tr>
</tbody>
</table>
Bass and Avolio (1994) confidently advocate that their discoveries were true for higher and lower level leaders. A mix of both leaders can deliver excellent result. Pragmatically my research result will be the holistic approach, and will have potential result while dealing with innovation.
2.4 Analyzing Leadership Contribution to Innovation and Identifying Stages

McKinsey (2008) study report said, 70 percent senior administration expressed that innovation is one of the main three drivers for their organizations development and achievement. Subsequently, in a qualitative research, interview with Jane E. Stevenson (Euchner 2013) – she is a top recruiter of CEOs (Chief Executive Officers) and CIOs (Chief Innovation Officers) for multinational corporations; she advocates reasonable relationship between CEO and CIO (Leader and Innovator), as it is crucial since innovation could significantly lead organizations to success or annihilation, therefore seamless communication between both of them is a rational key factor. She also concluded that CEO needs to empower Innovation Management (IM). Furthermore, other administrators saw innovation as a critical tool for organization to accelerate the pace of progress in today's worldwide business environment (Forbes 2013).

Research indicates that leadership part accounted 15% to impact on business performance and coordinate innovation into official executive meeting's plan to guarantee that innovation is a piece of corporate technique and unmistakably reflect in mission, and vision of organizational leaderships 35% role, this shows leadership plays directly or indirectly 50% role in organizations success through innovation (Bowman 2001; West 1992). Author Rafferty and Griffin (2004) said managing innovations implies vulnerability and leaders with scholarly incitement have stronger impact on organizational performance under troublesome circumstances. On the other hand, Denti and Hemlin (2012) reviewed 27 empirical studies on the relationship between leadership and innovation, they discussed about the factors, stating that leaders can impact innovation through contingent factors giving less formal centralization, recruiting heterogeneous teams for innovation, singular incitement and influencing creative self-efficiency, shared-decision making and leaders ought to nearly take after and bolster their team for innovation. In addition, Rafferty and Griffin proposed the sub-dimension concept of transformational leadership that underpins the innovation in organization including articulating vision, rousing inspiration and communication yet they said articulation of vision may have negative impact on followers if leaders don't motivate and rouse their followers. Their research has exhibited characteristics of transformational and transactional leadership who are managing and driving innovation yet missing to add leadership style names. Thus, this research paper is concentrating on both leadership contributions in technology sector.
Surprisingly, the literature clarified that leadership 'transformational and transactional' attributes and factors are more significant to innovation, compared to the characteristics represented by Centre of creative leadership research, for example, – honesty, empathy, inspiration, reliable, integrity, consistent, and so on. They do match with some common attributes, for example, – visionary, imaginative, inventive, risk taker (Ccl 2014). Author Berson and Linton (2005) said these are common attributes and competencies leadership ought to have however a leader who is driving and leading innovation, ought to have exceptional attributes. In his specific speech, he firmly proposed that transformational leadership factor may be more proper under instability, novelty and complexity climate, e.g. seeking innovation in R&D. Whereas, Transactional leadership style has positive outcome on managing and administrating innovation and may not be suitable for an R&D environment. While Keller (1992) research proposes that relationship of leadership part relies on upon the type of innovation projects, an organization is anticipating. He said that transformational leadership is stronger compared with other leadership factors for innovation projects. Whereby, research of Andrew and Farris (1967) and Keller (1992) contended that it is vital that a leader who is leading creative tasks ought to have technical skill, knowing field knowledge will help leader to bolster innovation active rather passive. This signifies contribution of leadership to managing innovation is substantial, besides, coordinating most suitable leadership and creating KSAs as per projects is constantly fabulous. Be that as it may, directing and altering leadership abilities based on the type and dimension of innovation and what stage innovation is still uncovered in contemporary research, though it gave strong indications of innovation dimension and suitable leadership.

In today's fierce business environment innovation is an vital element to survive or flourish business, but to manage innovation process in organizations are confronting incredible challenges. So far, we have understood that leadership play a key role to manage difficulties and are also capable of finding a solution. Existing research generously demonstrates that each individual accompanies the ability to discover and tackle subtle issues (Goleman 1995).
Author David Kolb (1984) research said, such dynamic behavior can be recognized, developed and harnessed amongst a group of people with varying abilities and viewpoint, thus remarkable tasks can be accomplished. A modest bunch example of these leaders who have performed innovation are - James Dyson he was innovative and had creative ideas and came up with a new concept of bag less vacuum to home appliance market, however this paradigm - incremental change product came into business sector following one decade due to his inadequacy in leadership to traverse faster on the implementation process but later Dyson understood and succeeded to manage innovation process as collective work (Smith et al. 2012; Johnson et al. 2011); Spence Silver, who discovered the non-sticky adhesive behind 'post-it' notes owing to miss experiment, though it was put on hold because of accidental innovation. However senior management critically considered 'post-it' innovation and then effectively repositioned and dispatched in business to capture its worth (Lynch 2006); Janus Friis & Niklas Zennstorm have developed Skype software - it drastically changed the way individuals communicate but then later it was purchased by eBay in the year 2005 (Fleischmann 2014). However, in 2009, an Investor group acquired Skype and under transactional leadership of Silver Lake, Skype clients were increased by 150%. In the year 2011 Microsoft had purchased Skype paying $8.5 billion, as Skype data utilization by worldwide clients was 22.2 billion minutes every anum, therefore the CEO of Microsoft perceived the potential offer valiantly and integrated Skype into Smartphones and transformed the communication mode (Microsoft 2011). This demonstrates the part of both leadership and believing in vision, utilizing right leadership style at opportune time. For example, Silver Lake applied transactional role to expand the clients worldwide and the CEO of Microsoft performed transformational role and transformed its communication mode, now Skype's data is accounted at more than 30 Billion every annum. There are several examples that can be presented, this research paper is investigating the subject by means of interactions with innovation leaders who are taking part in search and implementation of innovation on a consistent premise, and how these innovation leaders can impact individual and groups to manage innovation process (Ashbaugh 2013).
Case Study Examples in Context of Leadership Contribution to Innovation

In any case, if senior management "Leaders" don't consider individual obligation regarding innovation and lacking to perceive future potential, it is possible they are falling behind. As case study 1.0 says, failing to perceive the future potential and changing environment via abreast of technology and innovation and passive sensing of customer needs then maybe you will 'miss the boat'. Case study 1.0 additionally demonstrates the impacts of leadership factors - individualized influence and individualize stimulation to believing in own-self creating trust in followers and leading the organization on development by means of doing right things. (Bryson 1998; ATT.Com 2014).

Case Study 1.0: Missing the Boat........

On 10 March 1875 Alexander Graham Bell have experimented world’s first telephone conversation with his assistant Mr Watson. Excited with their discovery they demonstrated their idea to senior executive at Western Union, after few days they received written letter, ‘after careful consideration of your invention which is interesting novelty’ we have come to the conclusion that it has not commercial value and we see no future for electric toy. However after 4yrs of invention USA have 50,000 telephone and within 20yrs 5million. Being disheartened with senior management reply Bell formed a company called ATT (American Telephone and Telegraph) and grew to become largest corporation in the USA.

Source: (ATT.Com 2014; Tidd & Bessant 2013; Bryson 1998)

This case study indicates the lack of consideration and negative criticism from senior management of Western Union on Bell's invention and neglected to perceive a breakthrough innovation opportunity lied ahead. However, Bell emerged as a transformational leader and formed his own particular organization called ATT; Bell Telephone discovery was a standard transformation invention. Schumpeter's (1942) described paradigm shift - creative destruction model recommends that the failure of old methodologies fills the inspiration for change and shapes the future. Outlook changes happen when the old mental model of what "is" changes totally, hence achieving a breakthrough.
Likewise, Perez (2002) included and depicted paradigm innovation in the techno-economics paradigm as systematic changes, which affect entire sectors or even entire society. As specified above examples – Dyson, Skype and Telephone.

**Case Study 2.0-The visionary attribute – How leadership contribute to transformational change**

Nokia is the exceptional story during 1980s to late 1990s, on the journey of repositioning Nokia from origin of wood pulp and paper industry to mobile telephone market leader player in mobile although it was not easy. Yet, Nokia manage to become the fifth largest company in Europe, with 44000 employees in 14 countries. This transformation come up under transformational leadership of CEO, Jorma Ollila, who took up this role in 1992 from mobile phone division the idea of mobile phone have introduce with theme of ‘use with single hand’. However, a series of problems occurred and Nokia made serious losses in 1995. In order to bring change Ollila out courageously ‘bet the company’ disposed all the non-telecom business and trust in the telecommunication business and emerged as 70% share market in industry.

Likewise, Siemens can be another case, this again with roots in the 1990s where business analyst criticizing on company’s lack of focus on its electrical engineering business. Taking this dire notice Siemens have appointed new chairman in 1998 – Edward Krubasik, he strategize the company and under his leadership he led to the divestment of approx. £10billion of old business and repositioning Siemens into IT and software business. In 1999 Siemens profit surged and the sales increase triple, Siemens 60% revenue generate from Software business.

Source: (Francis 2003; Tidd & Bessant 2013; Robbins 2008)

Described case study of 'Nokia' and 'Siemens' gives a sense of position and process in innovation. Both organizations have drastically changed by means of going into new business division. Clearly, to take such sane decision, leaders need to have scope of traits and as exhibited in the case study, both organizations leader were transformational leaders with charismatic and visionary characteristics. As author Avolio (1999) said transformational leadership is an integrative
leadership. Though, this research papers objective are identifying and investigating how innovation leaders lead innovation projects by means of applying leadership skills. This research paper does not identify how technology sector firms CEO lead organization towards innovation because it is beyond the capacity of Master's Level research to accomplish.

**Advocates of Transactional Leadership to Innovation**

While Vaccaro et al (2012) is pessimistic in his perspective to utilizing transformational, just single methodology for managing innovation process. In his research, he started to think about the need to perceive a more extensive scope of leadership practices. He said, based on organization's size and types of innovation organizations required distinctive leadership styles, it is likely that the leader can overlap with leadership style and upgrade or can liaise with appropriate leaders. Case study 3.0, explains the need of different leadership practices. Research of more elite classes hypothesis propose that, decision making and selection of choices by top management through their evaluation to backing up the innovation thought have an effect on an organizations positive or negative performance (Talkea et al. 2010). Author Bryant (2003) claimed that leadership plays a key role in managing knowledge. He said managing knowledge incorporates three stages – creating, sharing and exploiting. Specifically, he contended that creating and sharing is explicit knowledge and could be managed by transformational leadership, whereas exploiting tacit knowledge is transaction leadership and plays a significant role. Case Study of 3.0 clarifies extremely well, how transformational leadership exits, and transactional leadership enters.
**Case Study 3.0-‘Creating, sharing and exploiting knowledge via transformational and transactional leadership’**

During early 1980s, under transformational leadership of Bob Taylor; PARC (Palo Alto Research Centre) scientist invented the first graphical user interface mouse with menu driven computer, it was user-friendly for novice. PARC have developed several computer products which now we have taken granted. Albeit, XEROX was not well integrated with his innovation and their top management was skeptical on new product that how it will fit with *copying machine* and failed to exploit the tremendous opportunity. Author Bryant claimed Xerox lacked the transactional leadership style in top management to provide the structure that could turn this idea into successful exploitation. In contrast, where XEROX failed, Steve Jobs succeeded. He visits PARC in 1979; he recognized the future of graphical mouse interface in computing. Jobs left the PARC with creative vision and share this with his scientist and Apple scientist succeeded to turn this idea into Macintosh which hit the market in 1984. Revolutionizing the face of computer under the combination of transformational and transactional leadership was accomplished by Steve Jobs. This signifies sketching vision and motivating team for new idea may require transformational style but providing the structure and exploiting new idea successfully do need transactional style.

Source: (Bryant 2003; Bennis & Biederman 1997)

Case study 3.0 is noteworthy case for leaders to recognize the necessity of transactional leadership in light of the fact that transformational leader may seed the innovation, but may fail to capture and exploit from the greater part of it, as explained. Also creator Vaccaro et al (2012) in his research paper argued that transactional leaders are extremely powerful to managing innovation through detecting the needs of business sector, exploiting the opportunity by means of maximizing profit, they also feel the need of subordinates and adequately attracting them with contingent reward so as to get reasonable result. Despite the fact that study says they are exceptionally productive ways of doing innovation at small size organizations in particular and could play in-general fundamental role in large organizations (Berson & Linton 2005)
Justification of Research Paper

At this abstraction, I have thrived the comprehension of contemporary phenomena – research topic relevantly contribution of leadership so as to manage innovation in general and distinguished the transformational and transactional factor while managing innovation process. In particular, Literature review shows the commitment of leaders (CEO) of organizations, and how he/she led and manage innovation by means of managing innovation management. The above literature review plainly gives a method of reasoning to study the zone of, contribution of leadership 'transformational and transactional' to innovation. Although, this research paper's objective are identifying and exploring how innovation leaders lead innovation projects by means of applying leadership skills. It is established that just transformational leadership as single methodology may have embellishment or other leadership have been diminished and/or ignored.

Therefore, with the help of seniors and associates considerable recommendations I believe this research has reasons to continue. This research paper is not challenging to past study as this is a factual fact that transformational leadership have eminent contribution towards innovation. It is resuscitating the value of transactional leadership which also is a factual fact. Keeping in mind the end goal to examine and distinguish transactional and transformational leadership contribution I have conceptualized the framework which will aid me to gather the information and analyze the data in a particular view.
CF (Conceptual Framework) has been characterized and portrayed in the following chapter and its usefulness has been discussed.

### 2.5 Conceptual Framework

Literature reviews shows that substantial research have been carried out to explore, investigate and identifying which leadership gives better result to accomplish organizational objectives. In particular to drive and oversee innovation process – search, select, implement and capture, researcher has reviewed transformational and transactional leadership contribution. Interestingly, majority of study's guaranteed that transformational leadership is exceptionally viable to lead and manage innovation process. While, numerous researchers take a negative position and started to study that contribution of transactional leadership in innovation areas do matter. Their study suggested, although transformational leadership do have viable part however transactional leadership have a key part too to managing innovation process. Furthermore, they have given reasons that are based upon innovation types, process circumstance and dimensional leaders ought to utilize either leadership style. Thus the researcher has conceptualized the framework which will initially help to research the phenomena that **How** and **when** leaders ought to change their leadership approach to maximize the better result and keep away from any consequences.
This framework is comprised of five key characteristics that both leadership have, in spite of the fact that their approaches' can be different from one another. For instance, transformational leader influence his/her supporter by creating and sharing vision while giving a sense of mission to accomplish. In compared with that, transactional leader leverage skills of his/her supporters by setting clear goals and explaining smart objectives to achieve. Please see the table of summarized characters of both leaderships and how it is blended and finished up into one characteristic.
Table: Summarized Characteristics of Transformational and Transactional Leadership

<table>
<thead>
<tr>
<th>Transformational Leaders</th>
<th>Transactional Leaders</th>
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<tbody>
<tr>
<td>• Create and offer vision and gives sense of mission = <strong>Influence</strong></td>
<td></td>
</tr>
<tr>
<td>• Instill pride, admiration and acknowledgment, and common trust = <strong>Intrinsic Motivation</strong></td>
<td></td>
</tr>
<tr>
<td>• Advocate the utilization of knowledge, sanity and critical thinking aptitudes = <strong>Proactive</strong></td>
<td></td>
</tr>
<tr>
<td>• Act as a tutor and mentor, incitement, treat devotees individually = <strong>Mentor</strong></td>
<td></td>
</tr>
<tr>
<td>• Set exclusive standards utilizing clear messages to focus attention = <strong>Director</strong></td>
<td></td>
</tr>
<tr>
<td>• Set reasonable goals and explain smart objectives = <strong>Leverage</strong></td>
<td></td>
</tr>
<tr>
<td>• Offer unforeseen prizes for compelling performance = <strong>Extrinsic Motivation</strong></td>
<td></td>
</tr>
<tr>
<td>• Follows principles and guidelines, and make remedial move for problem solving = <strong>Reactive</strong></td>
<td></td>
</tr>
<tr>
<td>• Express the ideas and utilize reward as essential source of power = <strong>Promoter</strong></td>
<td></td>
</tr>
<tr>
<td>• Attract to the self-interest of others = <strong>Delegator</strong></td>
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So as to conceptualize the framework, researcher have consolidated both leadership characteristics and closed into single characteristic which present better understanding to conceptualize the structure. Kindly see the blended table of both characteristics of leadership:

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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Influence + Leverage</td>
<td></td>
<td>Influence</td>
</tr>
<tr>
<td>2.</td>
<td>Intrinsic Motivation + Extrinsic Motivation</td>
<td></td>
<td>Motivation</td>
</tr>
<tr>
<td>3.</td>
<td>Proactive + Reactive</td>
<td></td>
<td>Catalyst</td>
</tr>
<tr>
<td>4.</td>
<td>Mentor + Promoter (Create Platform)</td>
<td></td>
<td>Support</td>
</tr>
<tr>
<td>5.</td>
<td>Director + Delegator</td>
<td></td>
<td>Task-Allocation</td>
</tr>
</tbody>
</table>
Although, this framework is a combination of leadership characteristics and innovation process model, as researcher is investigating whether embracing different methodologies has a connection to diverse phases of innovation process – that is ultimately different situation, context, and dimension. The conceptual framework will aid the researcher to outline interview questions and survey questionnaire so as to gather deliberate information. The collection of information/data and suitable analysis technique will show the leadership approached and contribution to innovation, whether innovation leaders are practicing transformational or transactional leadership.

2.6 Conclusion

Literature Review is the core part to understand the research topic and is helpful for forming an own research topic and objectives (Yin 2000). The section 2.0 literature review can be finished up of depiction and discussion of past research, and current ongoing debate. I have commenced this part in from more extensive view by explaining the managing innovation and its process's stages while connecting with leadership practices, and then characterized and described the leadership along with transformational and transactional leadership role. In particular I have specified the additive effect model while touching the research subject satisfactorily and bringing issues to light for reader to understand the rationale for conducting this research.
3.0 Research Methodology

Research Methodology is a fundamental part for this research paper as advancement for organization, this is area 3.0 as should be obvious on structure perspective, is about defining the proper approach. Research is the efficient methodology for gathering of existing information and study and interpretation with clear goal and reason to figure out things which may include value or critique. Though, methodology is the means by which this research ought to be carried out. It is a systematic step taken by the researcher to study the phenomena by means of hypothetical and philosophical assumptions as research area and the questions indicate. Design is a logical thought and focusing for decisions of procedure, whilst completing the research and justifying the choice (Collis & Hussey 2003; Yin 2000; Saunders et al. 2003). Area 3.1 is the over-view of the segment 'Research Methodology and Design' by drawing a structure and clarifying the following:

Figure 6: Research Structure view
3.1 Over-view

Author Robson (2002) and a few researchers consistently concurred that applying unseemly research procedure will misguide the research. Subsequently selecting the right research strategy is a crucial part. The researcher has warily designed the research methodology and justified every progression of selection.

As the above structure indicates, it gives an idea of research methodology and outlines the design sections for this research paper. Section 3.2 is peeling off its first layer from 'research onion' by selecting epistemological rationality with interpretivism paradigm and indicating inductive methodology while justifying rational. IBM and SAP are the two cases that have been studied as research strategy for this paper and are justified in section 3.3. Section 3.4 is satisfactorily justifying for choice of qualitative research data collection, 'six in-depth interviews have been
conducted with Senior Innovation Leaders/Managers from both Organizations. The next section 3.4.1 is depicting about sources of information gathered.

Section 3.4.2 is clarifying Ethics and access issues and considerable actions to succeed. The profile history of IBM and SAP, have been characterized and portrayed in section 3.5. Approach to analysis, has been practiced with the blend of display analysis and discussed about in section 3.6.

3.2 Research Philosophy and Approach

The researcher has adopted the epistemological perspective with Interpretivism rationality and inductive approach on the grounds that this research design will encourage the researcher to focus on the study to investigate phenomena and acquire knowledge through recognizing social and the real world, as it is a debate of rationalism and empiricism. Furthermore, the research questions represent the rich data, new insight and profound understanding of complex world, where the researcher will be inciting collected information. It is not a law-like speculation, where the researcher can sum up leadership contribution in general and leadership style in specific as a formula for managing successful innovation process throughout the stages (Zikmund 2003; Collis & Hussey 2003; Yin 2000; Saunders et al. 2003). Figure 8.0 represents 'designed research methodology'.
Figure 8: Designed Research Methodology

Interpretivism philosophy viably serves to knowing the attitudes, procuring information from real world experienced leaders of managing innovation process within IBM and SAP. In addition, this may not be quantifiable in an effective way by taking positivist position. Thus, applying positivism rationality may not substantiate for the researcher. However, Interpretivism can support this research paper productively, as the researcher is dealing with two of the most Hi-Tech organizations and ambitious to research the leadership contribution to innovation in general and how Transformational and Transactional leadership approach can impact on innovation process. Leaders who manage innovation are 'social actors', they play a significant role; Interpretivism will allow the researcher to enter in a social world and study the present case to understand the present reality of leaders who manage innovation projects with their perspective.
In particular, this research topic has reasonable study from previous research, albeit several studies have been carried out to explore and identify the contribution of leadership to innovation in general. The secondary data and knowledge of leadership and innovation are both explicit and unsaid. Therefore, to discover both knowledge (attributes, experience, real world practices, and others factors) researcher has adopted the inductive approach to deal with impel information, and inductive approach is steady with Interpretivism philosophy and the researcher will be instigating information by utilizing qualitative technique while conducting open-end interviews with senior innovation leaders or managers. Inductive approach is more justified in light of the fact that it will empower the researcher to take more informed decision while acting as an observer and asking good question and listening carefully and patiently. The researcher will be interpreting subject comprehensively. Robson (2002) said that qualitative data are associated with concepts and are characterized by their richness and fullness in view of a chance to explore a subject. Therefore the researcher has completely associated with his research topic questions to maximize the data from a leader’s point of view.

3.3 Research Strategy

The researcher has strategized his research with two contextual investigations (case studies) 'IBM and SAP' and I believe it will flawlessly support my research and generally reliable with philosophy. In addition, applying other research method, for example, – ethnography, action research, experiment and others couldn't permit the researcher to study satisfactorily and research findings may not be potential. In this manner, choosing the case study will be exceptionally relevant to my research, compared with other methods. Furthermore, to transform the research idea into research project, my selection in research methodology is very important. The research design will be a general arrangement of how the researcher will strategize to answering the research questions.

With a specific end goal to do that, knowing research type or intention is crucial, hence, the research questions and objective implies the exploratory research as the researcher is trying to figure out profitable means, new insight and more profound understandings (Collis & Hussey 2003; Yin 2000; Zikmund 2003).
3.4 Collection of Primary Data

Keeping in mind the end goal, to gather primary data, the researcher has contacted numerous innovation firms in Ireland by means of E-mail, LinkedIn, Telephones, and utilizing existing contacts for references. The researcher has contacted innovation firms who are doing innovation on consistent premise, for example, – IBM, Microsoft, Google, Intel, SAP, and SalesForce etc. The researcher has succeeded in getting an approval from IBM and SAP to study and gathered essential information (primary data) by means of interviewing with senior innovation leaders/managers. Please see IBM and SAP profile, followed by the participants in the interview profile table.

3.5 Innovation and Leadership Cases of IBM and SAP

IBM

IBM (International Business Machine) was established in 1911, in the past known as Computing Tabulating Recording Company (CTR) is an American multinational expansive organization in technology and consulting. The head office of IBM is situated in Armonk and have generally enhanced present in worldwide (IBM Research History 2007). IBM manufactures and markets software and hardware, consulting services furthermore offers infrastructure hosting’s. IBM territory likewise covers standard PCs to nanotechnology. IBM is one of Ireland's leading suppliers of cutting edge information technology, products, services and business consulting expertise (Govindarajan & Trimble 2010). IBM is committed to helping their clients to innovate and succeed through the end-to-end transformation of their business models and the use of creative innovation and business solutions.

The Rational selection of IBM is because, IBM has been performing innovation since its commencement and from research objective viewpoint, IBM would appear a perfect subject for this research. Given its reputation for leadership in innovation, for example, – landmark innovation Blue Gene – supercomputer and current innovation projects; smarter planet five in five – future innovation which will change the way people are living and there are several innovative products and services that are offered by IBM (Govindarajan & Trimble 2010; IBM.Com 2014)
IBM has a long history in Ireland, having opened there first office here in 1956. IBM in Ireland today is comprised of a diverse workforce of more than 3,000 employees working over a wide scope of businesses and locations including: IBM Ireland, which has across the nation obligations regarding delivering sales, marketing and administrations across the Irish market; Technology campus in Mulhuddart, Dublin - which hosts IBM's globally integrated global missions, delivers services, manufacturing, research and software development, together with their research facilities in located in Cork and Galway, for the world business; and European Sales and Services Support Centers situated in Blanchardstown, Dublin, which delivers to the European market (Irish Times 2014; IBM Ireland 2012). Additionally, Mr. Burton says to Irish Times (2014) that IBM's most recent activities incorporate business analytics, cloud computing and next-generation data Centre administrations, and more smarter urban areas innovation focus (as specified above), concentrates on integrated infrastructure and beyond. These all form and build up the improved ability in an organization with an amazing history of innovation. Thus, the researcher has chosen IBM case study for this research.

SAP

The second case study that the researcher has chosen is SAP, as SAP is the world leader in enterprise applications in terms of software’s and software related service income based on business sector capitalization. SAP is the world's third biggest autonomous software manufacturer (SAP Ireland 2014). Having a 42-year history of innovation and development as a genuine industry leader, SAP employs more than 66,500 employees at locations in more than 130 countries (SAP History 2014). Listed under the symbol "SAP" on stock trades, including the Frankfurt Exchange and NYSE, SAP generated yearly income (IFRS) of € 16, 82 billion. More than 253,500 customers around the globe rely on SAP. From expansive worldwide organizations to educational institutions, governments, SMEs, and subsidiaries – its clients come in all shapes and sizes and they can choose to run SAP solutions – on premise, on-demand, and on cell phone. The SAP Community Network (SCN) unites about two million individuals to tackle issues, learn, and invent better approaches for doing business (Yahoo News 2014; SAP Innovation 2014)

From case study point of perspective, SAP would appear a perfect subject for my research, given reputation for leadership in innovation, for example, – Business Applications such as CRM, SCM
and others; Data Base & Technology such as Business Process Management, Cloud Computing, Data Management and others; Analytics such as Business Intelligence, Enterprises execution Management and others, and several others items and administrations offered by SAP (SAP Innovation 2014)

The SAP Product Policy Pages are intended to help clients find data identified with Ariba, SAP Cloud, and Data Protection Agreements (Yahoo News 2014). Their acquisition strategy compliments existing SAP applications and solutions with innovative technologies that add to organic growth. Functional units of SAP are split across different organizational units for R&D needs, field exercises and client support. SAP Labs are mostly in charge of product development, while the field associations spread over every nation, are in charge of field activities such as Sales, Marketing, Consulting and so forth. Head office situated in SAP SE is in charge of overall management as well as core engineering activities identified with Product Development (Forbes 2014; SAP Innovation 2014). SAP client support, also called as Active Global Support (AGS) is a worldwide association to provide support to SAP clients around the world (SAP Ireland 2014).

Regarding interviews, participants reliability and validity all interviewees, the researcher has managed to get significant experienced members for interviews and their profiles are clarified in the table below.

<table>
<thead>
<tr>
<th>IBM</th>
<th>SAP</th>
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<tr>
<td><strong>Interviewee One:</strong></td>
<td><strong>Interviewee One:</strong></td>
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<tr>
<td>Name: Anonymous</td>
<td>Name: Anonymous</td>
</tr>
<tr>
<td>Age 35-45; Gender: Male</td>
<td>Age: 35-45 Male</td>
</tr>
<tr>
<td>Designation: Senior Innovation Manager</td>
<td>Designation: SAP Dublin R&amp;D and Site Leader</td>
</tr>
<tr>
<td>Experience: 12yrs, filed above 40 patents.</td>
<td>Experience: 15Yrs, filed above 100 patents.</td>
</tr>
<tr>
<td>Education: Bsc and Msc in computers, PhD</td>
<td>Education: Bsc, Msc, Engineer SIEEE, PhD</td>
</tr>
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### Interviewee Two:

<table>
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<tr>
<th>Name: Anonymous</th>
<th>Name: Anonymous</th>
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<tbody>
<tr>
<td>Age: 40-50; Gender: Female</td>
<td>Age: 40-50; Gender: Male</td>
</tr>
<tr>
<td>Designation: Global Innovation Catalyst</td>
<td>Designation: Innovation and R&amp;D senior BI Developer</td>
</tr>
<tr>
<td>Experience: 20Yrs, filed above 100s Patent</td>
<td>Experience: 20Yrs, filed above 100s Patent</td>
</tr>
<tr>
<td>Education: Bsc &amp; Msc in Computer, PhD, SIEEEE</td>
<td>Education: Bsc &amp; Msc in Computer, PhD.</td>
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<td>Designation: Innovation and R&amp;D senior BI Developer</td>
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<td>Experience: 20Yrs, filed above 100s Patent</td>
<td>Experience: 20Yrs, filed above 100s Patent</td>
</tr>
<tr>
<td>Education: Bsc &amp; Msc in Computer, PhD.</td>
<td>Education: Bsc &amp; Msc in Computer, PhD.</td>
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### Interview Three:

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<th>Name: Anonymous</th>
<th>Name: Anonymous</th>
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<tbody>
<tr>
<td>Age: 40-50; Gender: Male</td>
<td>Age: 35-45; Gender: Male</td>
</tr>
<tr>
<td>Designation: Leader of R&amp;D, Innovation in IBM.</td>
<td>Designation: Senior Manager in R&amp;D BI Developer</td>
</tr>
<tr>
<td>Experience: 25Yrs, filed above 100s Patent</td>
<td>Experience: 20Yrs, filed above 100s Patent</td>
</tr>
<tr>
<td>Education: Bsc &amp; Msc in Computer, PhD, SIEEEE</td>
<td>Education: Engineer &amp; Msc in Computer, PhD.</td>
</tr>
</tbody>
</table>

Above mentioned interviewees are prominent and have extensive experience in leading innovation projects worldwide and locally. The method for primary data collection is in qualitative, the brief presentation of both organizations have been clarified in analysis section 4.0. The researcher has chosen qualitative methodology on the grounds that it is generally with interpretivism philosophy, inductive approach and contextual analysis (case study) approach. Even author Blumberg (2011) proposed, this methodology is most suitable with contextual research analyst to keep away from an excessive amount of steadfastness on informant. This methodology has two credentials:
• First, the researcher can now know the informants' viewpoint on the issues (questions) of research, while, then again researcher additionally is also able to know whether the informants can validate the subjects understanding and affirm the data that the researcher has had.

• Second, is the researcher (interviewer) will satisfactorily confront with the interviewee to know insight knowledge, to do that, the interviewer has to be socially competent and behave professionally while he gets the information required and ensure that it would not ruin the corporate atmosphere.

IBM and SAP members (interviewees) have been reached out by E-mail by depicting briefly about the research topic, reason and the researchers desire to study their reputed organization. After agreeing for participation by IBM and SAP, researcher has scheduled the interviews at their innovation Centre in Dublin – IBM at Blanchardstown Building 6, Innovation Center. And SAP, City West Innovation and R&D Building. Interviewees have given a brief foundation of research topic to give an idea regarding the area and sample questions have been shared with them before meeting. The sole objective is to maintain a strategic distance from any long and speculated answers, however look for data within context of the research topic. Thus, the researcher feels that it is relevant on the grounds that con sensually there is no denial that leadership is a vital element to drive innovation yet specifically regarding the matter of leadership contribution and factors, single leadership or all encompassing, perhaps it is complex and subject to interpret. The interviews have been held as per the interviewee’s convenience.

3.6 Ethical and Access Issues

A decent case study analyst hopeful will endeavor and battle for most astounding moral benchmarks while conducting a research. Therefore, the researcher has foreseen the obvious issues that may occur while contacting participants (organization or individual) to gather the primary data, as participants do get several requests from students and researcher welcoming them for participating in their projects. However, SAP University coordinator has a good relation with a known contact and he/she has help to organize the interviews with relevant staff and standard procedure has been rehearsed to keep up the moral and access issues by both sides. Since the participants have an occupied timetable, along these lines, researcher has allowed adequate time
to contact organizations to partake in this research. Researcher have informed clearly in the cover letter using basic dialect to express the research topic, in particular advising that innovation management staff will be interviewed, not more than 30 minutes where researcher will interact with them and preceding that, researcher will agree for a consent letter if needed by IBM and SAP for clear adherence and understating of research participation. IBM has their own AECI (Agreement of Exchange Confidential Information) structure which is signed by GBS head of faculty and IBM significant administration. With a specific end goal to stay away from biasness in interview, the researcher has simply read the question and made a note to the answer's permitting interviewee to express his experience. If necessary researcher have probe and information has gathered enough and reasonably as opposed to being objective and selective as it will have the suggestion on the validity and reliability quality of this research. The researcher has made notes of the interview while concentrating on live interactions; this has been concurred with IBM and SAP participants strictly for data analysis purpose and won't be revealed to anybody.

3.7 Approaches to Data Analysis

As clarified above, this research is conducting qualitative methodology for Data Collection, IBM and SAP are the cast studies that have been used. Regarding data analysis process, after meeting the participants for the interview, the researcher has transcript-ed each session on MS word and saved interviewees labeling them, e.g. SAP-1MI (SAP- First Male Interview). In terms to deal with data analysis, Researcher has practiced narrative analysis, in light of the fact that Reissman (2000) proposed that narrative analysis is the best investigation approach when information collection have received a narration by the participants (Yin 2000; Saunders et al. 2003). This research data collection by means of interview sessions, demonstrates the answering style of all participations from IBM and SAP. They have shared the data in light of their critical individual experience in narrative style, how they and their colleagues drew in into innovation projects while using leadership skills. If the researcher would have used a different analysis approach, for example, -- thematic analysis, coding, grounded theory, discourse analysis, then maybe it wouldn't bring out a potential insight, as data will be classified and unitized by using CAQDAS (Computer-Assisted Qualitative Data Analysis Software). In addition, the fact that the researcher has taken Interpretivism approach and study the social world inside-out, have observed the participants answering behavior and style while interviewee was sharing the information, in this way
interpretation of information in same context without impacting on research discoveries can bring helpful understanding regardless the outcome compared to applying different analysis approach, which may not examine and investigate important data. However, the researcher has used figures and diagrams to demonstrate the findings and similarities in participant’s responses while managing innovation process. Therefore, the researcher has applied narrative analysis to investigated the contribution of leadership to innovation in technology sector and investigate when transformational and transactional leadership role plays an important part. The procedure of data analysis will be definitely an interactive style and the gathered information will be investigated without biased personality. Further detail of the analysis process will be read in section 4.0.

The researcher believes that selected research methodology will support the overall research, providing the researcher a better understanding and will improve profound learning of research methodology itself as well as supported research findings is more trusted and ensured reliability and validity.
4.0 Analysis Discussion and Presentation of Findings:

Overview:

In this section, the researcher has provided the purpose which has critically reviewed and discussed the literature of leadership “transformational and transactional” contribution during managing the innovation process. After illustrating and justifying the appropriate research strategy to identify the projected objective of research paper. This section explains the analysis discussion and presentation of findings as below diagram exhibited this section 4.0 of complete research paper core outcome. Thus, this section is presenting the discussion of analysis based on the primary data collection via interacting with innovation leaders of IBM and SAP. Section 4.2 is brief introduction of IBM and SAP profile in context of research background. Section 4.3 is main body of this section and continues with research findings, statement and diagrams have been formulated e.g. simple figures while describing them and supporting with interviewees phrases.

Figure 9- Research structure view
Researcher has applied narrative analysis thus reader will see presentation of findings vastly in narration format while referring to research objective and literature review, however reader can refer to main concluded findings in section 5.0. Researcher is following the sequence of CF and Data Collection format. Researcher has also cross referred with IBM and SAP leadership approach. This has allowed the researcher to discuss how both organizational leaders take approach to contribute to innovation and it is also help to explain validity and reliability; furthermore, why and when their leadership approach differ to managing innovation process, although, IBM and SAP are two different organizations’ within one sector. Research findings have optimized in last section concluding discussion which explains whether researcher have achieved the findings or not.

4.1 Findings Presentation and Discussion

This section begins with set of general research findings presentation in points and detailed data analysis talk has furnished in the following section which will be the proof of narrative analysis practiced along with figures and description while clarifying the unwavering quality and legitimacy. Fundamental Findings are additionally incorporated at the beginning of every narrative analysis section.

In the first segment, data analysis significantly indicates that:

- IBM and SAP innovation leaders have recognized and affirmed leadership contribution to drive and manage innovation process
- The study demonstrates their initiative 'transformational and transactional' way to deal with managing innovation, and relies on upon the innovation projects, their innovation teams capability, experience, type of innovation, size of innovation; and based on the resources they have.
- Data analysis indicates that innovation leaders initially start their innovation projects under transformational leadership, however, they radically change their approach with transactional leadership when meet difficulties and vulnerability. Therefore, this indicates, transactional leadership is best to manage crisis that arise, as it is an inevitable character in innovation management.
- Research analysis demonstrates that, the approach of innovation leaders towards managing innovation process is moderately similar for IBM and SAP, despite their methodology
approach varies with great reasons. Interestingly it has been analyzed that within the IBM and SAP leadership, approaches towards managing innovation process, they somewhat have diverse practices.

- Some of the reasons below indicate mixed findings in terms of linkage between innovation process stages and leadership practices:
  - Different Innovation process models are used by innovation leaders.
  - These are likewise but are kept a secret
  - Search and Select – are the two stages which are not practiced but focused by innovation leaders.
  - General comment while probing and different leadership approaches practiced

The statements mentioned above are the research findings, which give an overall understanding of the data analysis approach and research discussion, as this paper is investigating the contribution of transactional leadership compared to transformational, how leadership contributes towards innovation and when and why leadership practice change.

**Findings 1: Acknowledged the previous Study**

**IBM and SAP innovation leaders have recognized and confirmed that leadership have contribution to drive and manage innovation process**

It has been distinguished, while interacting with real world innovation leaders, it’s been confirmed that leadership does add contribution to innovation. According to one of the top global innovation leader in IBM, "IBM has many innovation project managers worldwide, who are working on several innovation projects and have leadership skills, he (interviewee) also concurred that leaders and himself practice the core elements of leadership".

Subsequently, SAP innovation site leader affirms "The fundamental elements for SAP are innovation, leadership skills, and knowledge. All these together are key driver to investigate and lead innovation project successfully".

This conformity from real world leaders means that innovation is core part for an organizations accomplishment, as it has been discussed and covered in the literature review.
Finding 2:

The evidence of research shows that each leadership has a rational to have practiced different approach methods, and it mainly depends upon the innovation project, innovation size, innovation team capability and organizational environment.

However, the main objective of the research is to find out how leaders approach is important and effective while they are engaged in the innovation process. The researcher has gained an insight from SAP and IBM leaders, that, they do practice both the approaches; Transactional and Transformational, but also they keep different approach for different valid reasons. The figure below indicates that IBM and SAP innovation leaders use both leadership methods and their approach in general is very common.
They also do changes approach based on different reasons and requirements. Leaders do impact their colleagues as 'Modeling the way they are' or setting objectives for them to accomplish (Northouse 2013). Innovators are by and large exceptionally creative/innovative minded what they missed is? - Experience, magnitude, focus and ramifications of innovation. One of the SAP leader said, "Innovation has numerous sizes and shapes, you have to ensure yourself that you are focused and are productive, and that your innovation project team can take large projects and to understand how to crack it in small pieces; and afterward reassemble those pieces. He (interviewee) also said, this process can't be accomplished by simply giving them guidelines or a checklist. He made his point saying Transformational leadership is good for sharing vision for longer term, and
Transactional leadership is a day-2-day actions and work. Other SAP leaders concur with it despite the fact that they included "I think it would be based on vision and following with individual team members own goals such as – personality development programs. Individuals can have their own vision and goals to accomplish keeping in mind the company's vision as well".

Thus, the interview with IBM leaders have affirmed that innovation projects can be influenced by innovation project leaders, however more imperative is "to help the team to see how they place themselves in an individual role and job, in terms of understanding the bigger plan as a collective team". Further he (interviewee of IBM) said "To ensure they have sufficient staff with expertise, building consensus in team. Ensure that all understand the plan and their individual role on that plan, is aggregate team network to get them there. Since leaders will not have to tell his innovation staff every day and every week to do the necessities, and not give them a chance to see the more extensive plan". These statements answer the research objective that it's not only just about transformational leadership role in managing innovation, however transactional leadership does have an incredible effect on the success of innovation process. However not all leaders have concurred that, in light of the fact that one experienced leader said, "there is no solid connection between how you impact your team for innovation, sharing vision and utilizing own experience, because project achievement was not generally related with how experienced that individual is. So experience went down the rundown, To my (interviewee) experience it was related with enthusiasm and objectives, and also novelty in product- for example, it was a case, there was the money toward the end of the project and it was appreciation that began for the employees towards the end".

Interestingly as specified in literature review, innovative idea can rise up out of anyplace, however, it is accomplished with a systematic approach for innovation process and it involves huge workforce. Every individual have diverse psychology and attitude, where a leader thinks that an energetic/enthusiastic individual lead innovation projects. On that note, other IBM global leader thinks that "Its relies on upon persons, a lot of individuals I am working with would be exceptionally senior and very much well experienced, they needn't bother with vision and mission, its ideal to let them think for themselves and be there if they require any assistance, generally i attempt to work the way the individuals in my organization including individuals senior to me prefer". He (interviewee) added that, "he is a global innovation leader; and he doesn't have
sufficient time to set clear guidelines for individuals, his role is to enable individuals to be innovative, adding them with resources”. This indicates that, based on individual team capability and resources, leaders practice the leadership to manage innovation.

In terms of a specific reaction, SAP leaders share that "A vision without an execution is nothing", he (interviewee) explained this comment by saying that, "vision can be formulated by transformational leader but an execution can be done by day-2-day leaders and managers who are absolutely transactional leaders working on the field". He added saying "So definitely it is both leadership efforts" which will contribute significantly to managing innovation process. The above analysis discussed, represents the findings that leadership do contribute to innovation and leaders adopt both leadership methodologies/approach, depending on the situations specified above in bullet point.

**Finding 3:**

**Predominance of Transformational leadership when innovation projects are planned, HOWEVER, they immediately change their approach to transactional leadership when they face challenges, instability and exceptional performance**

IBM and SAP confirmed that inspiration is key component for their representatives and in addition for themselves while managing innovation process. At the point when researcher probe to distinguishing what approach they applied to motivate innovation management team, The researcher has distinguished that IBM and SAP are applying transformational leadership as first and general preference and do take transactional approach once in a while in based on the performance of the innovation team or an individual. The figure below
depicted SAP leaders methodology are common with IBM but they go bit beyond to trace if their innovation management representatives are unhappy or anything annoying them and causing them uncomfortable, which will have an effect on their viability and productiveness. SAP leader describes that "Regarding individual reward, each huge organization have performance relevant pay. In leadership point of view, we have opportunity to rewards staff through salary based process, we have more strategic reward scheme, where we can perceive an individual contributions, which is great from a fundamental point of perspective. We also go a step beyond of permitting individuals to get personal satisfaction and acknowledgment from peers review". Further he (interviewee) added, "To motivate staff we do a lot of internal knowledge transfer session".
Another SAP leader said "what exceptional SAP does is, ensure that SAP individuals trust the organization to realize that they do survey for staff they believe as managerial viewpoint. It is essential for the organization that their representatives are happy, and if not they have plans prepared to make the employee happy and be motivated".

A senior manager in SAP said that "recognizing and ensuring subordinates work has highlighted to top management and the feedback they receive from them will persuade innovation management". These statements indicate that SAP has practiced emotions, acknowledgment of team work input. They said, if they perceive a representatives work and highlighted, then other employees get persuaded as well and its works for the organization exceptionally well to create innovation on a continuous premise. Furthermore, both organizations affirmed reference as a top management to promote employee on performance based innovation management, where they are boosted up with more confidence and their productivity. For example - an IBM leader said, "Two team members were promoted recently under my supervision/leadership and I have upheld them and guided them". Promotions to higher position galvanize employees and are offered better compensation compared with earlier.

Amazingly, what fascinates the researcher is that, both organizations innovation leaders affirmed that to manage innovation process stages viably, they firstly need to ensure that they hire the right individuals for right job. Also, regarding extraneous rewards, IBM leaders said that "In some cases we do give physical rewards, however, it is extremely limited only if the individual has done something exceptional, that brings significant sales to the organization". Likewise, SAP leaders expressed that "If individuals truly do well and outdo themselves by taking the extra miles, they get cash reward".

Acknowledgment of representative's commitment have numerous features; it could be standing applauds by your team or top management, top management sharing mails to colleague, specifying the employee's name or walking towards the employees desk and saying 'WELL DONE', these all components fall in under leadership skills and ignite an employee's performance to drive innovation in leaderships viewpoint. One of the IBM leader, shared, what demoralizes innovation management individuals, "In the event that you push them too hard. It’s better not to push them too hard". This demonstrates that inspiration is a significant component for leaders to apply where
it is required. This analysis also indicates that, it is not sufficient just to outline reward framework to persuade employees, but leaders need to make proactive steps to identify if any employee is unhappy with the organizations attributable to not satisfying and acknowledgment towards their contribution.

In terms of leadership approach, the analysis indicates that, Leaders practice both leadership styles. If an employee has done exceptionally well in his job and contribution towards the work is consistent, they receive physical rewards; which indicates the transactional approach. However, an employee’s performance based income is very much sufficient. Therefore, organization leaders practice innovative ways to motivate innovation management in order to successfully manage the innovation process.

**Finding 4:**

**Managing innovation process requires a rising leadership approach; perceived and constrained leadership skills may hinder the innovation process.**

Leading innovation process means managing questionable, unpretentious and open issues. Dealing with these unseen and calculated issues, does require critical thinking and a problem solver characteristic leader, e.g. catalyst approach - proactive or receptive; to face these challenges and illuminate them, so that the innovation project isn't delayed. While interacting with IBM and SAP leaders to recognize their way to deal with managing issues, researchers investigation distinguished that - issues are inevitable but what is reasonable before you begin innovation project is "proper planning and strategic execution by innovators, because they act low and think high".
said one of the IBM leader. The figure below demonstrates that, for the most part both organizations methodology is a blend of transformational and transactional leadership, "Since, not being ready ahead of time to manage unseen issues is making own selves fool", as told by an IBM leader.

Figure 12: Leadership approach - Catalyst

While probing to impel insight, SAP leaders say that they apply many in-house methodologies to measure the issues ahead of time and how to manage them "In leadership point of view, with a specific end goal to take care of the issues, the team needs to turn power, research and exploration of what kind of execution strategy ought to be used, such as – design thinking, agile approach and cool wall; based on the innovation project they are working on". SAP leaders utilize these tools as pre-planning to dodge any outcomes, setting up the answer for predictable issues and moving the
project smoothly and easily. This demonstrates the proactive methodology which falls under transformational leadership method.

Though, IBM leaders see longevity as an issue while engaging in innovation project. Colleagues do lose regard for work with same speed on the project on account of time consuming activities, hence, there are effective task supervisors/managers who include themselves in the project and get peers into undertaking and receive feedback from them. On the other hand, two SAP and IBM leaders see that, if the innovation management team experience subtle problems and are unable to find a solution by themselves, then they do not falter to call and involve the global senior leaders. This strategic methodology helps them to determine the issue and solve it or advice to shut the project and guarantee that it should not effect on employee's performance to overcome from this inclination. SAP leaders state that "they champion the failure because things don't work out always and not just successful innovations be rewarded only".

Subsequently, when facing any uncertain issues IBM leaders say "just stay with us and we will work it out", and SAP leaders say "just don't surrender to the problems", stand on your toes, convey all assets to take care of the problem. Moreover, leaders share that, standard transparency guidelines in place can maintain a strategic distance from any enormous issues and open sources to welcome different innovators to offer assistance. "Everyone reports regular in light of the fact that everything is extremely straightforward we are exceptionally genuine and we communicate well if something is not going admirably according to the plan, we are always prepared to stop and return and figure out the issues’, as told by a leader from SAP.

"While engaging in innovation, it is obvious that problems occur, firstly you can't preplan for unseen problems, but you can have assumptions, so WE consider both methodologies. Sometimes you meet issues that can't be solved, then at that moment, it is important not to panic and do not hesitate to ask help because we are a large organization and help can be accessible easily. If we cannot find a solution for the problem, then leave the project and move on. Maybe that project was a good idea but it didn't work out that is it", as said by an IBM leader.

"I think the most concerning issue in the innovation process is individuals investing an excess amount of time and energy in pondering about an idea and not much time being spent on the execution of the idea, you have to find the balance on the grounds that in the event that you don't
do what's needed, then you would be a busy fool and activity is no measure and achievement, it must be focused and so it’s essential", as told by a leader of SAP.

Managing innovation project while dealing with issues requires both leadership styles, it will be not justified to say just transformational leadership contributes towards innovation on the grounds that managing live and real issues obliges leaders to bring all assets and resolve the situation, at this moment transactional leaderships takes part by searching for a solution by using different sources enlisting effective project management managers, coordination's with diverse teams, frequent meetings with the teams and encouraging the team to look for help by means of utilizing global leaders experience and available assets "because it is the team that succeeds not the individual. If a team succeeds, the individuals also succeed as they are the members of the team. So if one team member does not succeed then the group does not succeed either, think about it. It is team effort, team objective and team project", as said by an IBM leader.

Leadership does contribute to innovation and its happened in several ways, for example, - leading an organization on a right direction, creating culture, building organizational atmosphere, creating and exchanging information, developing leadership and management aptitudes, investing the capitol reserve on the right project, taking a right decision on the right time, additionally fabricating human capital to be exceptionally skilled is essential. Keeping in mind the end goal to do this, organizational; leader support their innovation management via abreast of mentoring and providing a platform to us and be skillful while taking part in innovation. Henceforth, to distinguish and investigate how IBM and SAP leaders support their innovation project team; researcher has explicitly identified that IBM and SAP practiced transformational and transactional methodology as depicted in the figure below.
The above figure states that both have agreed that supporting innovation process is a central part. For Instance, IBM leader said that "We have a great deal of platform available as we are doing numerous innovation projects, and truth be told I do run some of them, I would ask individuals to utilize those. However, in the event that someone needs to do something another way than I am not stopping them, preferably it would be great that they are utilizing the tools that are good, what we have given". However, in relation to support he said that, “yes I will step into a project if they
require me; helping to move them on, get them to solve the issue in the event that I need to and offer assistance. I will check them and see if I am helping them in the event, if I am not then I have to go and get someone in the event that they can help”. He (interviewee) concluded that "for me it is both the methodologies", this statement shows that innovation requires leaders to be emergent and give innovation management what they require, which will help them to try their best performance for the organization to produce Innovation.

Similarly, SAP innovation leader affirmed that "I think it is more adaptable that you create the platform. Especially, if you are working in a large organization and substantial amount of individuals are working for you, what you would like to attempt to do is, create an organizational character, mindset of the team and when another group of individuals joins a team, it will act naturally manageable". SAP leader were ready to clarify exceptionally well in leadership point of view that how leaders could apply different leadership approaches as it is a requirement for organization, "Teams have a tendency to think in same way and energize in the same way, so if a new individual comes in their team, they can be their guide and companion and that the best model and that something requires cognizant push to make it happen. The way we do things here, I am enthusiastic about work on this. So creating these opportunities and platforms, individuals can shine and offer the things they are working on and that all needs to improve the general character of organization to innovation projects", as told by a SAP Leader.

Leader see building, encouraging and creating a platform is versatile and a vital step as they are not available most of the times to meet their team members on a routinely premise. However, frequently utilizing accessible assets to take a shot at and look for assistance from colleagues, often gives innovation management a support to manage innovation process. Furthermore, Innovation is a fragile process, right project can take an organization on growth and a wrong project can let-down an organization. Thus, leaders see that before they support any innovation project, they ensure that it goes through by means of innovation architects perspectives shared by the IBM leader. This great understanding induced from qualitative primary data additionally coordinates that both organizational leaders are emergent to adopt suitable leadership ways to drive innovation. They are not restricted to one or two leaderships. Interestingly, they have built their in-house management practices to ensure they are doing the right project. For example, – discussing the idea with an architect, sharing ideas with the associates and accepting any feedback's in return.
When I (researcher) probe to identify IBM leaders approach, they said innovation is not like that you call your team and say, 'hey this is a project, go and do it'. "This is not a case here, go and do it, it’s a case, this is your challenge, this is your platform, and I am here to help, if you need my assistance let me know anytime, anywhere, i can help you". This statement signifies a single leader with two ways to deal leadership and drive innovation. Similarly, another IBM leader affirmed, "I used to support but now i am more towards to guiding teams to utilize accessible platforms because of the fact that I am involved in numerous projects". This demonstrates that taking into account a leader’s busy timetable and expanded innovation operations requires to creating platform for innovation team, which will act naturally adequate and reasonable and can be used as an individual development or to mentor others. Therefore, based on the leader’s workload and requirement request, leaders change their approach to manage and produce innovation.

Finding 5:

Transformational leadership is not simply a superior and a more progressive form than transactional leadership, as much of the literature suggests in context of innovation process findings.

Undoubtedly leaders do impact innovation project team, support them in various ways while inspiring them and giving them the necessary tools and resources to successfully deal with
problems and leaders champions the failure to urge them to be consistent and productive, as it is beneficial for the organization as human capital is most important for an organizations achievement and leaders comprehended that and practice mixed leadership approaches to keep up. Despite the fact that task allocation is conceivably vital regarding selecting right individuals for the right project vice versa, for innovation leaders as it will help them to direct the team while setting or expecting their input or just appointing them their task. In order to distinguish, how IBM and SAP leaders allocate task to ensure the innovation process is managed by the right individuals and when and why feedback needs to be given and leader need to step it up. The Figure below provides an idea of IBM and SAP leaders approach.

**Figure 14: Leadership Approach to Task-Allocation.**

IBM and SAP have acknowledged that they hire talented people and they plan the right employment for them. SAP pioneers have mixed approach task allocation towards Innovation management, "I am not a micro-manager nor am I a directive manager who have philosophies to
share", as said by a SAP leader. He (interviewee) added, “there are times when you have to be a directive and it’s normally to meet the due dates and decisions need to be made, but in general, leaders need to be descriptive on task allocation”. Further he (interviewee) concluded, "Yes give them direction - explain better or clarify the team to be more define". Since assigning the task and monitoring may or may not be feasible for innovation leader, or directing a task may be suitable. Whereas, IBM leaders certify that they need innovation project teams to work with independent mode, however be responsible for the kind of project you are managing and dealing. An IBM leader said, “We have systems set up to screen task rate, I would be screening the performance at all the times as far as the task is concerned. Also, I would be asking where we are on this project. And where we are going to? What is the status of this milestone? Have we reached it? Innovation leaders follow the standard task management program”.

IBM and SAP leaders responses are offering an explanation to my research questions and objective that leaders do take diverse methodologies while contribution to innovation. Leaders do screen innovation project status while appointing tasks or coordinating and depicting them their task and if in a bad position they respond, "In the event that we are into a bad situation, what is the reason? We are in a bad position, on the grounds that the task is bigger than we suspected? Are we in a bad situation because we need help technically? Are we into a bad situation on the grounds that some piece of framework is not meeting expectations". This signifies that leaders take combinations of approach to lead innovation projects. They assess their capability and search for resources, and if they find an obstacle they direct and delegate the team, "because, leaders can't go and do work for everybody and it’s about following things, how tasks proceed onward I mean leaders must be open and emergent" said an IBM leader. Furthermore, data analysis indicates that IBM and SAP leaders do prioritize tasks and represents to the team and direct them to work on the high level task first, further they do divide tasks, in little pieces and allocate them to the team. SAP leader affirmed that they encourage teams to follow the project management tools. Similarly, an IBM leader said "We rely on the teams after they are allocated with the tasks, we don't get involved in the management until they require us".

Both organizational leaders hold the feedback if its 'negative' and won't give it until they find an opportune time and they give them in particular and in a positive sense, But one of the IBM's global innovation leader said that "Feedback should not be given openly if its 'negative', But rather
I think it should be given as soon as possible, there shouldn't be a reason to waste time, and be given in a particular way saying good things first”. This portrayal implies that IBM leaders do practice transformational and transactional leadership methodology while managing innovation projects. In addition to when and why, data analysis suggests that the feedback should be given as soon as possible and not wastes time in doing so, as it can effect on innovation project. Though different leaders feel feedback should hold and to encourage team in a positive sense so that the individual gets a chance to return and contribute successfully.

Finding 6:

Incapability to investigate and identify effective relationship of leadership approach practices throughout innovation process stages

At this point of data analysis and presentation of findings section, researcher has outlined how leadership contributes to innovation process while taking diverse leadership approach. To an extent, this research paper is also researching how depicted leadership approaches are relevant with any specific innovation process stages – search, select, implement, and capture throughout innovation process or it would be the same. To find that researcher interact with IBM and SAP leaders and data analysis strategy proposed that IBM and SAP leaders do use diverse innovation process models (researcher did mention about this in the literature review that every organization can manufacture their own particular innovation process model, however this model is generic) and the researcher also identified unusual findings. Please see figure 13, as it clarifies how leaders respond. Although, SAP innovation leader asserted that "Actually we have these stages, however
we call it something else, and we managers think differently regardless we need to deliver innovation.

Figure 15: Leadership Approach – Innovation Process Stages

Further he (interviewee) included, leadership methodology and relationship linked to innovation stages is exceptionally diverse to comment and depict the application "In terms of the stages of
innovation and applicable/relevant approach. It's extremely complex to tell; I think it is imperative to be transformational if leader want to be an organization which is successful, who can create vision and articulate the organizations path, however it is vital that day-2-day tasks can't be done by check-lists and guidelines. It must be managed by a transactional leader, so it’s a blend of both and based on the circumstances or a position the leader finds himself in". This unequivocal statement is a direct answer of this research papers questions and objectives.

In general, data analysis method portrays that, certifiable leaders embrace and practice different innovation models and find difficulty to remark on contribution of leadership approach to innovation especially to portray innovation process' stage "the trouble with this is, this is not the model we follow in IBM, but yes based on the situations and circumstances we do change the methodologies as we have talked about", as said by an IBM leader.

Whereas SAP leaders expressly clarify the more extensive leadership methodology while managing innovation process stages, conversely IBM manager’s point of view, motivation and task allocation is exceptionally applicable with innovation process's four stages and he (interviewee) concluded that, based on innovation projects, leaders can take his methodology despite the fact that teams ability and commitment does make a difference. Researcher observes that the validity of answer is ambiguous and there wasn't a suitable chance to probe. Regardless, IBM leader affirmed that from leadership point of view, 'yes' it’s the dual methodologies that rely on upon individuals and innovation project. "I think from the individuals perspective it is the same as we talked" But he (interviewee) also affirmed that IBM is not effectively included in the first two stages compared with implementation and capture, participating in open innovation platform implies the part of rising leadership methodology, that is the thing that IBM is seeking. Search and select stages are great with traditional process.

Data analysis process connotes that by and large innovation leaders do practice both leadership styles as they comment frequently about different leaderships approached while managing innovation process's stages "I think transformational leadership is very much effective in the event that its works by implication - what I mean is transformational style does the work, if they provide structure, vision and expecting a phenomenal result. But they have to take an interest in everyday task and monitor the work progress" as said by an IBM leader. This statement conveniently directs
that transformational leadership is vital for more extensive perspective but regular assessments can be finished through transactional leaders characteristic. He (interviewee) concluded that, "A vision without an execution is nothing". The IBM leader admits "So it’s all about depending on the situation" as he clarified that, "I do encourage teams to utilize platform however I am prepared to monitor if it works for my team".

4.2 Discussion and Conclusion

The above analysis and presentation of findings shows the establishment of leadership contribution to innovation have significant evidence. The findings have great overlap between each findings statement due to narrative analysis impact. In terms of the leadership approach whether leaders practice transformational and transactional leadership, analysis showed that IBM and SAP innovation leaders do practice both leadership methods and their rationale to use different leadership style are much similar and also slightly differ on some occasion as discussed above. For example, within IBM one leader is holding feedback of his innovation team member for not to discourage member whereas other leader is giving feedback to his colleague quickly for not wasting time and correcting him for better outcome. This research purpose was to find out whether innovation process is predominantly leading by transformational leadership or transactional leadership does have contribution too.

Also, this research stands out to distinguish when and why leaders change their approaches. The analysis of primary data indicates that due to relying on the young talented and creative employees for producing an innovative idea and working on those ideas to acquire fruitful innovation in an organization, demands innovation leaders to enable these employees and encourage them, for instance, innovation leaders urge innovators to utilize the accessible platform and resource to work on their innovation projects, but in the event that they need to take a shot at a different format then innovation leaders don't stop them, however, they encourage them. Therefore, innovation leaders oblige changes in their leadership approach and this strategic approach's result is dazzling for them. This examination paper was additionally investigating that talked about leadership methodologies are same all through the innovation process in every stage, as discussed above. Interpretation of analysis demonstrates that, in a broader sense, leaders do change and apply diverse leadership characteristics throughout the innovation process stages, but they also confirmed the fact that they use their own innovation models and skip to answer particularly innovation model's stages, of
which the researcher was using. Basically in any case the innovation process model affirms that the world of innovation is not dominated by just transformational leadership to drive and manage innovation (as secondary data have overwhelmingly praised), in fact, without the meticulous practice of transactional leadership, innovation leaders may not have been succeeded to drive and manage innovation.
5.0 Research Conclusion

Hence, the researcher has furnished the research topic while discussing and breaking down significant literature with legitimate justification to complete the research project. Suitable research methodology has been defined to accomplish the target of this research. Researcher has analyzed the data and presented the Findings in the earlier section. This segment is clarifying the primary findings conclusion of this research project by means of depicting the contribution and limitation of this research. Furthermore, it is clarifying the ramifications of research questions, followed by recommendations for future research in similar areas. Finally, researcher has concluded and expressed his own impression of completion of this research project.

5.1 Research Main Findings and Contribution

Innovation or technology base organizations have entered in open innovation era, where they are constantly searching, selecting, and evaluating innovation projects before implementation and deliberately capturing best value from successful innovations. Fierce rivalry has ignited controversies within industry for "to be first mover in technological innovation" and firms are looking innovation as a central component to accomplish SCA (Student Conservation Association) over their rivals. So as to accomplish that, leadership plays centric role by means of various characteristics. This research has investigated the commitment of leadership in 'Transformational and Transactional' to innovation within the Irish based Technology Industry. The main findings and contribution of this research are depicted below:

5.1.1 Main Findings:

- The analysis of this research has confirmed that transformational leadership has contribution to manage innovation process and to an extent, it is additionally distinguished that transactional leadership has huge commitment as well.
- The study also identified that Transformational leadership is not just a prevalent and more dynamic structure than Transactional leadership, as a great part of the literature recommends in the context of Innovation Process.
- The research signifies that innovation leaders transcendently start their innovation project under transformational leadership, however, they drastically change their way to transactional leadership when they face with difficulties and vulnerability.
Which demonstrates transactional leadership is the best way to manage with crisis which is an unavoidable characteristic in innovation management.

- The evidence of research demonstrates that leadership have rationale to practiced different approach relies on innovation project, innovation size, innovation team ability, and organization environment.
- The study also demonstrates that managing innovation process requires rising innovation approach, perceived and constrained leadership abilities may hinder innovation process, as leaders may neglect to perceive issues in human – innovation projects, team members and others relevant staff.
- The analysis of this research has induced that, transformational leadership contribute through articulating vision and mission associated with innovation process and transactional leadership contribute by means of regular planning and execution to accomplish the goals. In a single statement – "A vision without execution is nothing"
- The research analysis demonstrates the incapability to investigate and distinguish viable relationship of leadership approach practices throughout innovation process stages; however, it has initiated the study to recognize relationship between innovation process stages and leadership.

5.1.2 Contribution

- The study has contributed while exhibiting the knowledge of learning concealed to leadership while taking part in innovation process. For instance, leaders are comfortable to change their leadership position with a specific end goal to drive innovation through amplifying the ability of subordinates.
- The study has included that, transformational leadership is embraced as broad inclination to managing innovation; however it has a tendency to change into transactional leadership while issues, difficulties and instability occur.
- This research has added to resuscitate transactional leadership and showcase its potential role and application compared with transformational leadership while managing innovation process.
• The study has proposed that transformational leadership is compelling to arrange and lead innovation process, but without the support of transactional leadership it will be difficult to achieve success in an organization.

• This research has also added to demonstrate that holistic approach of leadership will effectively and efficiently deal with the innovation projects.

• This study has added to recognize in general the relationship of leadership ways to deal with innovation process stages.

The above principle findings and commitment to research is consistent with literature review, but to some extent this research has included the value of transactional leadership as genuine as innovation leaders are practicing both leadership qualities to lead innovation process.

5.2 Research Implications

So far, this research has examined the contribution of leadership to innovation while looking in, out and all around transformational and transactional leadership. Further, the research demonstrates that innovation leaders hone a set of leadership styles through utilizing distinctive qualities, depending upon necessity. However, the researcher doesn't understand how secondary research has vast kindheartedly applauds on transformational authority and decrease the value of other leadership styles. Regardless, the researcher comprehends that conducting the research to identify and investigate all styles of leadership roles to innovation won't be conceivable and achievable.

The research also reflects that innovation project varies itself; for example, one may concentrate on improving innovation on Java while the other is occupied with Cognos. These two types of innovation may have differentiation or similarities. Therefore, leaders and followers/supporters of these projects have exceptionally a strong, mature understanding to achieve the objective of the project and eventually the vision of organization. Thus to understand a suitable leadership skills to match with innovation projects is very complex. These demonstrate the research implications have great connection with this study.
5.3 Research Limitations

It is important for the researcher to acknowledge the limitations of the study, as mentioned above in the research methodology and data analysis section, indicates the approaches the researcher has made to investigate the objective of research and his analysis. The following points mentioned below can be the limitations of this research:

- The source that has been used in this research is data based on innovation leader’s experience, recognition’s and knowledge. The researcher believes that these leaders have significant experience managing, dealing and delivering successful innovation by means of different leadership characteristics. Thus can give significant insightful information.
- There can also be a possibility for reverse relationship in the study, for instance, in light of the fact that leaders do not have significant pre-planning to stay away from issues amid managing innovation process. Therefore, when they experience startling issue they manage it as a transactional leader.
- The data collection source was by interviews with top administration through in depth interview, even though this is time consuming and the participant might lack interest, yet, the outcome for this research data collection was 6 meetings with top administration and this facilitated to profound findings.
- In-person meetings to gather information have complications: interviewee could distort information and might have a tendency to please questioner (researcher), or interviewee could be uncomfortable to uncover the information as innovation activities are kept a secret.
- This is unlikely that qualitative research findings can be reached out to more extensive population with the same level of certainty that quantitative research can. Since the findings of this research ought to be tried to find whether they are factually critical or because of chance, before is passed on.
- Lastly, not all the components of case study analysis have been implied in this research to make this research a truly a case study analysis approach. For instance, managing innovation process may not have been observed in the real world but rather discussed meticulously with individuals who lead and manage.
5.4 Further Research Recommendations

As the purpose and objective of this research was to discover the contribution of Transformational and Transactional leadership to innovation process and to extent discover the relevance to innovation process stages, this research succeeded to examine and recognize the contribution of Transactional leadership compared with transformational leadership. However, this research is lacking to recognize the relevance of leadership 'transformational and transaction' throughout innovation process stages – search, select, implement and capture. Hence, the researcher believes that further study can be conducted to figure out the relationship of leadership and innovation stages as a separate research. Moreover, further study can be taken on board to figure out the relationship between leadership and innovation dimensions on the grounds that innovation has two dimensions: one is incremental innovation, second is radical innovation. These two studies would be extremely fascinating and challenging to study for researchers.

In my own terms for this research, I think the findings in this research can be tested via generating hypothesis or taking it as a proposition:

“The basic strategy preferred to manage innovation is Transformational Leadership, however, when an organization faces with challenges, innovation leaders tend to adopt Transactional Leadership”

5.5 Self Reflection

The outcome of this research has helped the author to understand the leadership approaches and the steps taken for a successful innovation and its process. In order to achieve the research objectives the author has firstly prioritized the secondary data through sources including books, journals, internet, articles etc. It is not feasibly possible to analyze all the available data for this research for obvious reasons. During the literature review stage, the author has learned to prioritize the secondary data as it was a key component to answer the primary data. A clear view of the secondary data, to the author would be helpful in future professional life.

Acquiring the primary data, the author has approached qualitative method and prepared questionnaires. The author has gained an in-depth knowledge of this research through critically analyzing all the data that has been gathered through the secondary data. The biggest contribution
for the author was the collection of primary data. The help received through the supervisor has helped the author achieve the objectives of this research.

This research has helped the author understand the concept of research methodology and to rationalize the data that has been gathered. Hence gaining the skills of Primary and Secondary research.

The author has faced many challenges on the way while conducting the research but has achieved them in a timely manner as specific time schedule has been made, even though it was a bit hard on attaining the interview dates, the author has conducted the interviews successfully. The author has been benefited greatly in managing time through this research on professional bases, as each section was planned and executed according, therefore improving time management skills.

The author has also gained a boost in self-confidence while conducting the research, more importantly while interviewing the participants by overcoming insecurities and improving communication skills. In the beginning the author was unsure of the method for primary data as it required meeting with unfamiliar faces, but the support the author has received from his fiancé has helped him overcome the obstacle, for which I am thankful.

Although, the journey to attain all this knowledge, the collection of data, the skills the author has gained has been a challenging quest. Disturbed sleeping patterns, gloomy face expression, missing on the daily meals etc. were the price of it, but, the author was confident from the start that the end result will be satisfactory.

I AM GREATEFUL TO THE ALMIGHT GOD FOR HELPING ME MANAGE THE SCHEDULE AND HIS BLESSINGS UPON ME.
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Appendix

Figure 16: CF and Questionnaire

Interview Questions:

**Q1. Influence** - How important is your own experience (versus that of your team) in how it influences the innovation project?

**Q2. Motivation** - How do you motivate your team to drive innovation?

**Q3. Catalyst** - How do you deal with problems while managing the innovation process?

**Q4. Support** - Do you prefer to mentor your team or create a platform for them to generate ideas themselves?

**Q5. Task-Allocation** - What is your approach to delegating tasks and monitoring progress while engaging innovation?

**Q6. Stages of the Innovation Process** - Are any of the approaches you described relevant to any particular stage of the innovation process - or would it be the same throughout?

- By “Stage” I mean one of the four stages I am using for this research:
  1. Search
  2. Select
  3. Implement
  4. Capture