



Transformational Leadership and its Impact on Exploratory and Exploitative Innovation: Field Study of Jordanian Detergent Manufacturing Companies

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Abstract

The study objective to examine the impact of the transformational leadership on the explorative innovation and exploitative innovation. The study adopted three dimensions for the transformational leadership namely: Individual considerations, inspirational impact and the intellectual stimulation whilst employee's two innovation dimensions were adopted for innovation which the exploratory innovation and exploitative innovation. The study was conducted on a sample consisting of (167) employees in (10) Jordanian Detergents Manufacturing Companies, from whom the necessary particulars were collected for the study through a questionnaire method which was developed by the researchers subsequent to review of numerous previous studies. The study used the analytical descriptive method and using the SPSS statistical program. The study concluded the existence of high levels for utilizing the transformational leadership dimensions by the leaders in these companies in addition to the existence of high and balanced levels of attention in the exploratory and exploitative innovation together with the existence of a higher proportionate attention in favor of the exploratory innovation. The study recommended of the necessity of continued and balanced attention of the two types of exploratory and exploitative innovation.

Key Words: Transformational Leadership, Exploratory Innovation, Exploitative Innovation, Jordanian Detergents Manufacturing Companies.

The First Topic/ Methodology of the Study

1. Introduction

The Jordanian Detergents Manufacturing Companies work in a variable environment and fierce competition. Its capability to survive and continue depends on its capability for rational and balanced dealing with such environmental changes as the capable organizations to deal with the environmental changes are those which are able to exploit the current opportunities and at the same time should be capable to adapt through exploration of the new opportunities (Raisch et al. 2009: 687). In order



for these companies to be able to deal without being environmentally certain, it has to renew, as the exploitative innovation is important for the success on the short run in view of drop of the environmental certainty (Popadic et al., 2016: 296). Whilst the exploration activity has lesser success on the short term because it requires to obtain knowledge and utilize remotely from the current operations of the Company. For all of the foregoing, companies need to achieve equilibrium between the two activities of the exploitative and exploratory activities, yet the question lies in specifying the optimum mix for these two activities (Chanda and Ray, 2015: 251). In order to realize this equilibrium and reach to the optimum mix for the two activities, the Jordanian detergent company requires a capable leadership to take care with the two activities in a balanced form. The concept of the transformational leadership as one of the solutions for realizing this equilibrium which leans on the capability of the leader to uplift the enthusiasm of workers for providing the best of the capabilities he holds. For all of the foregoing, this study came to examine the impact of the transformational leadership in the explorative and excogitative innovation in the Jordanian Detergent Manufacturing Companies operating in Jordan.

2. Study Problem and Questions

Numerous studies conducted on the extent of the possibility of management organizations to undertake the indicated exploratory and exploitative activities to the difficulty in realizing equilibrium between these two activities due to the radical difference between them as the exploratory activity gives importance to submitting the new thing on the long run whilst the exploitative activity concerns its self by submitting the new things on the long term whilst the exploitative aims at exploiting the short term opportunities thereby leading to the occurrence of a condition of tension with respect to the organization towards such two activities (Lavie et al., 2010: 114). There are those who find it necessary to maintain equal percentages of exploratory activities and exploitative activities (Posen & Levinthal, 2012: 590; Cao et al., 2009: 784). On the other hand others see that the tendency towards an activity at the account of another activity will be upon the Managers noticing the drop of performance and consequently select an increase in the level of one of the activist whom they deem suitable for realizing the best levels of performance (Chanda & Ray, 2015: 251). From the foregoing, the question appears concerning the extent of the possibility of utilizing the concept of transformational leadership in realizing the required equilibrium between the two activities. For all of the foregoing, this study centers around the response on the following queries:



- a. What is the level of application of detergent manufacturing companies for the concept of transformational leadership?
- b. What is the level of application of the Jordanian Detergents Manufacturing Companies of the exploratory innovation and the exploitative innovation?
- c. What is the impact of the transformational leadership in the explorative innovation in the Jordanian Detergent Manufacturing companies?

3. Study Importance

The importance of this study springs out through the following:

- a. The importance at the academic level, as this research treats a subject which is considered one of the most essential administrative subjects in the contemporary organizations environment, as it forms intellectual and future dimensions represented in the transformational leadership, exploratory innovation and exploitative innovation in order to enrich the administrative library by such modern topics.
- b. The importance of the study is embodied at the level of the field under study namely the Jordanian Detergents Manufacturing Companies through presentation of the proposals and recommendations to the top management in the companies under study by illustrating the extent of importance of the transformational leadership by equilibration between the exploratory and exploitative activities as well as utilizing same as these companies are always looking for new methods and styles which would enable them to acquire entrepreneurship in the field of its work and provide everything new, Consequently the possibility of making use from searching and adopting whatever it would be possible to reach in the form of results and recommendations with the object of improvement of performance.

4. Study Hypotheses

H01: There is no significant impact of transformational leadership with the dimensions there of (individual considerations, inspirational impact and intellectual motivation) of the explorative innovation for the Jordanian Detergents Manufacturing Companies.

H02: There is no significant impact of transformational leadership with the dimensions there of (individual considerations, inspirational impact and intellectual motivation) in the exploitative innovation for the Jordanian Detergents Manufacturing Companies.



5. Study Model

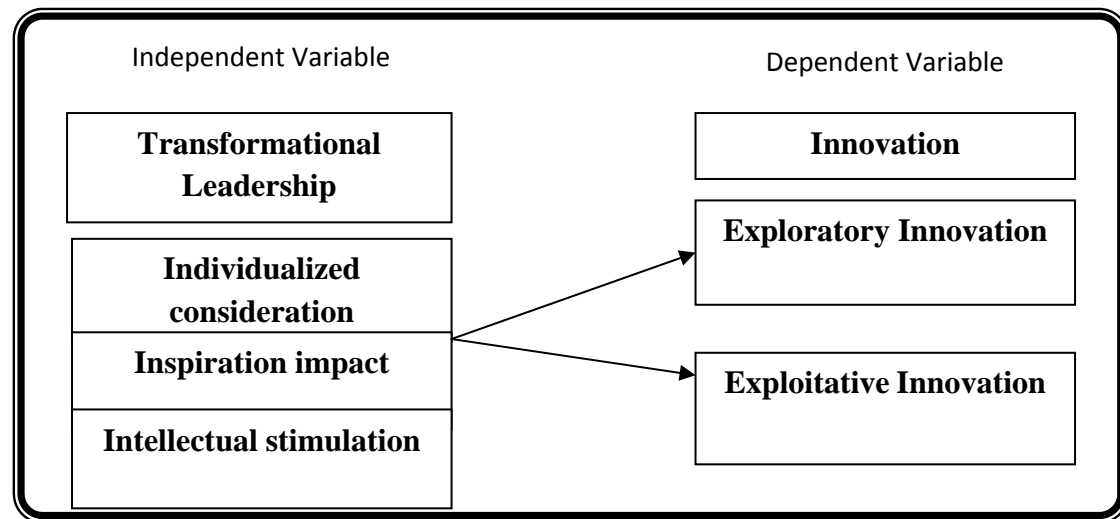


Figure (1) Study Model

6. Study Objectives

The study seeks to realize the following objectives:

- Identify the level of application of the Jordanian Detergents Manufacturing Companies for the dimensions of the transformational leadership.
- Identify the level of application of the exploratory innovation and exploitative innovation in the Jordanian Detergents Manufacturing Companies.
- Identify the extent of the transformational leadership impact on the exploratory innovation and the exploitative innovation of the Jordanian Detergents Manufacturing Companies.
- Identify the relationship between transformational leadership methods and exploratory and exploitative creativity.

7. Study Sample

The study pursued the employees in the Jordanian Detergents Manufacturing Companies which number (48) Companies (Amman Chamber of Industry, 2017). The researchers distributed (240) questionnaires to these companies, at the rate of (5) questionnaires for every company, where the questionnaires were distributed to the worker therein electronically through Google Drive, according to the method of simple random sample. The number of recovered and valid for statistical analysis amounted to (167) questionnaires which form (69.58%) of the total distributed questionnaires. Table (1) indicates to the personal characteristics of those formed the study specimen. The number of males amounted to (104) i.e. (62%) whilst the number of females amounted to



(63) i.e. (38%). As to the age category, the higher in number, it was 30 years and younger which amounted to (79) i.e. (47%) and the lowest was for the age category of (41-50 years) numbering (8) a percentage of (5%). As to the academic attainments, of the majority of workers were clearly from the holders of Bachelor certificate which amounted (117) i.e. (70%). With respect to the period of service, the concentration was at the category of (5 years and less) numbering (95) with the percentage of (57%).

Table (1) demographic characteristics of study sample

Variable	Category	N	%
Sex	Mail	104	62
	Female	63	38
Age	30 years and above	79	47
	31-40 years	66	40
	41-50 years	8	5
	51 years	14	8
Education	Secondary and below	29	17
	Diploma	8	5
	Bachelor	117	70
	Postgraduate	13	8
Experience	5 years and less	95	57
	6-10 years	38	23
	11-15 years	20	12
	16-20 years	5	3
	21 years and above	9	5

8. Data Collection

By virtue of the nature of study and variables thereof, it has relied on two types of sources for collecting particulars and information, viz:

Firstly: Primary Source

Whereas the initial particulars were obtained through the questionnaire as a main tool for study in order to treat the analytical aspects of the subject of the study.

Secondly: Secondary source

Whereas the particulars relating to the current study were collected by reverting to the sources of the secondary information as represented in the pertinent Arabic and foreign sources, articles, periodicals, reports, researchers and previous studies which tackled the subject of study, research and findings at the various Internet sites.

9. Data Collection Tool

To collect the necessary statements for study, the researchers used the questionnaire which consists of three parts and in the following form:



- a. Relates to some personal characteristics of workers who are study specimen namely: gender, age, educational qualification and period of service.
- b. Comprised of the phrases connected with the transformational consisting of (15) phrases and these phrases were developed after reviewing many studies including: (Para- Gonzalez et al., 2018; Pradhan et al., 2018; Chen et al., 2016; Chang et al., 2017) The phrases of this part were distributed at the rate of (5) phrases for each dimension of the transformational leaders.
- c. Comprised of phrases pertaining to the exploratory innovation and exploitative innovation consisting of (12) phrases. In this part the study of (Para-Gonzalez et al., 2018; Chen et al., 2016; Baskarada & Watson, 2017; Chen et al., ; Zang 2018; Hong et al., 2018) distributed in the following manner: (7) for exploratory innovation, and phrases for exploitative innovation. To answer the phrases contained in the questionnaire in parts two and three. Measure Likert has been utilized in the following manner: Strongly agree (5), Agree (4), Neutral (3), Disagree (2) Strongly Disagree (1).

10. Validity and reliability

To understand the extent of validity of the study standards, the expressions included in the group of workers within the study community, in order to ensure the clarity of these phrases and of being free of terminology and unclear words. The standards were presented to some academics who are interested in the field of business administration, for the purpose of ensuring the capability of expressions to disclose the variables and dimensions of the study. In the light of the remarks and subsequent to evaluating same, the researchers made amendments on some expressions so as to become clearer.

In order to measure the reliability of these measures, Cronbach Alpha has been utilized and Table (2) shows the reliability value of the study's dimensions where all of them were higher than the acceptable borders for the purposes of statistical analysis namely (0.70) (Sekaran & Bougie, 2010:) (0.70).

11. Statistical methods

For the purposes of statistical analysis and testing the study presumptions, the statistical bundles program for social sciences (Spss), by utilizing the following statistical analysis styles:

- a. Cronbach Alpha in order to know the extent of internal consistency of the phrases forming the study measures.



- b. Repetitions, to show the nature of distributing the terms of the study specimen with respect to the personal characteristics.
- c. Arithmetic mean and standard deviation in order to showed the extent of concentration and dispersal of responses of specimen expressions on the phrases relating to the transformational leaders and innovation.
- d. Multiple regressions to identify the extent of impact of the dimensions of the transformational leaders in the exploratory innovation and exploitative innovation.

The Second Topic/ Literature Review and Theoretical Framework

1. Literature Review

Study of (Park & Kim, 2015) aimed at looking into the amending role of the developmental diversification in the relationship of senility's performance and manpower innovation. The researchers anticipated that the diversified structure in the work framework contributes only in exploration and not in the exploitation. The two researchers examined the presumptions by utilizing the statements compiled from the Korean companies (234 Companies for exploitive innovation and 166 Companies for the exploratory innovation) as an exploratory study sponsored by the Korean Government. The study concluded that senility of the manpower had positive impact in the exploitative innovation and has a counter relation in the shape of the letter "U" with exploratory innovation. There is a negative impact for the manpower sending on the exploratory innovation only and that the impacts of manpower senility in the innovation depends on the age structure of the manpower as well as on the type of innovation followed by the Company.

Study of (Do, et al., 2016) where the researchers tried to identify the relationship between the flexibility of the human resources and adaptation culture with the existence of the organizational innovation as an intermediate variable. This study was conducted in Taiwan on 223 Taiwan Companies in the field of technology. One of the most important results concluded by the study that the flexibility of the human resources touch positively in the adaptation culture and contributes in the organizational innovation and that the ability to adapt has direct impact in the operations innovation and has an indirect impact on the products innovation.

Study of (Shanti, 2016) aimed at measuring the level of functional quality and extent of adopting the transformational leadership practices and impact of the transformational leadership with all its dimensions in improving the quality of functional life in the Palestinian Ministry of Health, as well as trend study for taking up the procedural justice factor



as an intermediate variable in the impact of the transformational leadership in so far as the quality of working life. The researcher utilized the analytical descriptive methodology and a questionnaire was designed for the purpose of collecting the particulars necessary for the study. The study community has been formed from all workers in the Ministry of Health in Gaza Sector and specifying a simple random sample of (370) individuals. The results of the level of the quality of functional life and the transformational leadership practices reached a middle grade at the Palestinian Ministry of Health. Also, there is a great and clear impact for the transformational leadership particularly the charisma impact and the individual considerations in improving the quality of working life.

(Alhelo, 2016) study aimed at measuring the transformational leadership and dimensions thereof in the organizational performance in the Communications Company in Syria. The study community consisted of workers in the Syrian Communications Company "Syratel " where the study sample has been set at 133) individual size. A questionnaire has been distributed on members of the study specimen namely Branch Managers Human Resources Managers and Finance Managers in Company branches which number (11) branches. The study reached several results the most important of which are the existence of impact with statistical sign for the transformational leadership with all its dimensions in the organizational performance be it the comparative performance or the internal performance. The study has also shown the none existence of differences with statistical sign as important as the transformational leadership attributed to the functional level.

(Al-Zahrani, 2016) study aimed at identifying the transformational leadership in the adaptation performance dimensions for workers in the Saudi Insurance Companies sector. The study was based on the analytical descriptive methodology and designing a questionnaire which was distributed on members of the study specimen amounting to (498) workers in the insurance sector in the Saudi companies. The study concluded that the Saudi Insurance Companies exercise the transformational leadership pattern by average degree. Also, the results have shown the existence of an impact with statistical sign for the transformational leadership in the adaptation performance of workers.

(Xia & Roper, 2016) study, the researchers tried to explore the relationship between two main sides for open innovation in the small companies and the assimilation capability as well as the external relations and impacts thereof in the growth of biological pharmaceutical preparations in the United States, Europe. The study was made in the United States, United Kingdom, France and Germany on a specimen



comprising (349) of vital pharmaceutical preparation companies. The results of the study indicated that the realized assimilation capability plays an important role in specifying the growth of the organizations ; that communication between the assimilation and the exploratory capability depends on the relations and strength of continued research and development whilst the partnership in the exploitative relations have more conditions on the assimilation capability realized by the companies.

(Popadica & Cerne, 2016) this study aimed at exploring the impact of the exploratory and exploitative innovation separately. Where the building was measured in the form by relying on the current studies in the administrative literature and for examining such relations, an analysis of the slanting pyramidal lines on a large specimen of the International organizations by utilizing accurate particulars. The results indicated that the relation between the exploratory innovation and the innovative performance of the companies are administered by partners who are geographically different and the proficiency presumption in the innovation context weakens the innovative performance.

(Kraft & Bausch, 2016) this study develops and examines pilot wise a trial mode which investigates the intermediary roles for three distinctive strategic trends (Market, learning, and trending of projects) on the relations between the transformational leadership, exploratory and exploitative innovation. The two researchers used the analysis methods together with formatting the structural formula?. They endeavored to combine the results with the separated search paths that cover more than (15) years of research, and the study utilized a specimen consisting of (215) impact sizes from (75) studies. The defining results uncovered the partial mediation from results that the transformational leaders paly a main role in creating defining strategic trends which in turn support the outcomes of innovation. As a matter of limitation, the results indicated that the transformational leaders promote mostly the exploitative innovation through building trends of the market whilst they encourage the exploratory innovation through motivating projects organization and head towards learning. The different mechanisms have shown that the transformational leaders encourage the exploratory and the exploitative innovation where it theoretically specify the unique medication roles in three specific strategic trends and proves its validity by trial.

(Popadic, et al., 2016) the study aims distinguishing between types of exploratory and exploitative innovations and its relation with the innovative performance in an increasing importance with respect to the companies. The study was conducted on companies in multi European countries (Cyprus, Czech. Astonia, Norway, Portugal, Romania, United



Kingdom, Slovakia, Slovenia, Spain and Switzerland), where the results of the study indicates that the simultaneous follow up of the exploratory and exploitative innovation hinders the innovative performance with the companies. Furthermore, the cooperation of companies with different types of partners (suppliers, customers, competitors, research institutions and universities) will mitigate the impact of the exploitative and exploratory innovations in the performance of deeply-rooted innovation in a different shape. The study has concluded that the utilization of multi collaborators is beneficial for providing contradictory pressures of the exploratory and exploitative innovation.

(Zange, 2018) the researcher tried in this study to examine the impact of the structural gaps in the two types of innovation namely the exploratory and exploitative. The study was conducted on several stages in the United States on the computer sector and reached (6894) alliances, and the listed alliances were selected in public only and a specimen thereof was taken from it and amounted (305) alliance. The most important achievement of the study is that the exploratory innovation requires miscellaneous outside resources to assist the organizations in overcoming the self-shortcoming and the structural gaps therein, whilst the exploitative innovation requires internal resources and exploitation of cognitions which enables the company to identify the aspects of shortcomings and probable gaps therein as well as determine the files of improvement.

Study of (Keskes, et al., 2018), aimed at examining three variables for measuring the impact of transformational leadership with its dimensions in the organizational dimensions by utilizing an average factor namely change of leaderships in the organization. The study was conducted by using the analytical descriptive methodology and the study specimen amounted to (427) French employee of the executive managers category and in various institutions in France of holder of a minimum of Bachelor certificate and they should have a minimum experience of two years within the institution in which they work. The study concluded that there is a role for the process of replacement of the leaders in the institution which would touch on the reflections of the transformational leadership on the organizational commitment. This contribution realized a great result in the dimensions of the organizational commitment and this outcome as a tie which increases the impact of the transformational leadership in the organizational commitment.



2. Theoretical Framework

2. 1. Transformational Leadership

The importance of leadership in the modern times organizations has increased due to the intensive competition and increased organizational and administrative issues encountered by the organizations. (Hareem, 2010: 216) indicates that the leadership is a social process which endeavours to have impact on the acts, behavior and tendencies of subordinates to act seriously and with interest to achieve joint and desirable objects. Therefore, the selection of the suitable leadership pattern- which has a major role in the success of organizations is one of the biggest challenges facing them. Therefore, the leadership is required to use new and innovative methods to stimulate and build full commitment and positive stands of all subordinates.

The strategic leadership for organizations refers to introducing a new pattern for the work of top management in the organization viz-a-viz the conventional leadership which was applied in leading the work group which was later applied on the various administrative levels in the organization of (Sanda & Arther, 2017: 281; Banker, et al., 2014: 879).

As seen by (Bass, 1985: 12) the leadership has two distinctive dimensions viz: Transactional leadership and transformational leadership, and the leader can be transactional or transformational or both together (Krishnan, 2005: 445).

The transactional leadership indicates that one of the leadership methods followed by the leaders who direct their followers to adopt the objects of the organization and endeavor towards its achievement by means of limited motivation such as the contingent reward which is the reward granted to subordinates in consideration of the efforts exerted by them and recognized by the leadership (Dartey-Baah, 2015: 102). In otherwards the transactional leader endeavors to formulate the material incentives regulation in a manner appropriate with the efforts exerted by the workers or through following some of the modern administrative methods such as administration by exclusion which requires the subordinates to inform their officers about all exceptional and unplanned matters in the work (Afshari & Gibson, 2016: 512; Hareem, 2010: 261; Kupers & Weibler, 2006: 372). This matter requires from the leader to follow up and search for any deviation in the application of regulations in order to take the necessary rectification measures thereto, and interferes only when the standards are not fulfilled. Therefore, the leader's pursuance of such ways would contribute in increasing the power of his influence on the subordinates to obtain their compliance with his decisions.



With the increase of pressures and big challenges which face organizations at the present time, the organizations need for an effective leadership appeared which have a major role in formulating and implementing the strategies which permit the organization to remain and grow as well as encourage innovation therein to raise its capacity endure and compete.

Consequently, many researchers who called of the necessity to shift to transformational leadership whilst indisating to the capability to convince the working individuals of the change and improvement. It also endeavors to evaluate the subordinates and motivate them to improve the performance and meet their needs and inclinations as well as advising them of the importance of their contribution in achieving the objectives of the organization (Northouse, 2013: 31). It also participates in changing the subordinates perception of the problems and issues through a new look, (Hareem, 2010: 233). It also represents a new model for the organizations leadership. (Krishnan, 2005: ;Kroon, et al., 2016:). The latter took over the transformational leadership not only in the business organizations but it extended same to the military organizations, and at the end, it has become one of the accompanying invariables of the distinct performance in the various organizations (Chang, 2017: 816). The transformational leadership points out to the ethical and inspirational impact of the leader on his subordinates in order to vie in glory of their own interests in favour of the organization, and this is made through the utilization of codes and values. Apart from the personal characteristics of the leader which prompts the subordinates to admire him and have more trust and loyalty in him, a matter which motivates him to exert double effort in executing the work requested from him (Şahin et al., 2017: 109).

Also, the transformational leadership contributes in stimulating subordinates to undertake unexpected innovative work (Krishnan, 2004: 62). (Küpers & Weibler, 2006: 365) believe that the leader who adopts this type of leadership will have fundamental and considerable impact on his subordinates and continuously seek to stimulate them to obtain new innovative thoughts to solve problems and develop work. The transformational leader work to create an atmosphere of confidence and respect in his relationship with his subordinates to encourage them in converting their personal values to support the organization's vision and objects (Chen et al., 2016: 448). (Krishnan, 2005: 446) indicates that the transformational leader have the capability to achieve outstanding and distinctive accomplishments which clearly looks to third parties to be difficult to realize upon following any other method of leadership. Researchers agree that the application of the transformational leadership method depends on four basic pillars viz: (Krishnan, 2004: 67; Duckett &



Macfarlane, 2003: 315; Kupers & Weibler, 2006: 375; Al-Shanti, 2016: 44; Abu Rumman, 2016: 721).

1. Charisma characteristics for the leader, or fascination of the halo enjoyed by the leader. Tradition Barbutto of charisma impact that the "capability of the leader to gain the confidence, admiration, respect and appreciation of subordinates, and considering him their ideal example where the subordinates imitate the leader and yielding with desire to every demand".

2. Leadership inspiration of subordinates by using codes and values to increase their motivation towards work and expresses the important issues by simple methods.

3. Intellectual stimulation of subordinates and prompting them to present new ideas to solve and develop the problems of work. The transformational leader works on searching for the new ideas and encourage solving the problems in an innovative method by the subordinates and support the new and creative samples to perform the work.

4. Individualized Considerations for Subordinates i.e particularize treatment with the subordinates whereby each individual will be treated individually whilst knowing , training and advising.

Bass is considered one of the pioneers who called for the necessity of adopting the transformational leadership method in the organizations which looks for distinctiveness and endeavors to increase its efficiency and many researchers agree with him. (Krishnan, 2004: 65; Duckett & Macfarlane, 2003: 315; Küpers & Weibler, 2006: 373).

The importance of the transformational leadership as a modern leading pattern is due to its endeavor to enable workers, through their authorized powers and work to develop their skills, strengthen their self confidence as well as work on forming self dependent work teams (Abu Rumman, 2016: 717). The transactional leadership and transformational leadership should not be looked at as a conflicting introduction for accomplishing the issues, as the transformational leadership builds on top of the transactional leadership and realizes levels of efforts and efforts of individuals which exceed what may be achieved by utilizing the transactional model only, (Hareem, 2010: 234).

2.2 Exploratory Innovation

The exploratory innovations involves finding the new cognition and farness from the existing techniques and skills whereby requiring the organizations which get involved in the exploratory innovation to be more flexible, thereby enable it to respond in a better way in the troubled



environment (Hong et al., 2018) which leads to improving its competitive capability in the long run and improve its future income (Li et al., 2010: 301), thus it resorts to searching on multi interpretations of the available information and the diversified search for finding new solutions for the problems. This is tied with the search, diversification, adventure and trial (Park & Kim, 2015: 482) thereby granting the organization the capability to deal with the variable environments and open the way for it the way to it for new work opportunities and consequently be able to produce new products which are considerably different from the present products Thus improve its overall performance in the long run (Popadic et al., 2016: 298) and be able to add a new value which is different from what was available, in order to realize more diversified revenues on the long run (Park & Kim, 2015: 483) thus the exploratory innovation will be considered synonymous to the root innovation (Li et al., 2016: 301).

2.3 Exploitative Innovation

Organizations resort to applying the exploitative innovation strategy with the object of fulfilling current customer needs or the present markets through exploitation use the opportunities at hand such as (Hong et al. 2018) and also endeavors through this strategy to increase efficiency in the short run, improve the present income for the organization (Li et al., 2010: 302) as organizations which apply the exploitative innovation need to collect information on the current problems and then analyze them and look for solutions to the problems through improvement of products or techniques and upon finding the solutions, this will lead to providing opportunities to workers to look for new cognition as well as produce new ideas (Hong et al., 2018), which assists in the optimum exploitation of the available resources and in most cases the cost of the exploitative innovation will be lower than the cost of the exploratory innovation (Popadic & Cerne, 2016: 1169).

Researchers believe that it will be advantages to indicate that organizations which concentrate on the two types of exploratory and exploitative innovations reach to the phase of organizational ambidexterity thereby assisting it in achieving advancement and excellence. It also serve to improve its performance and excellence. It also serve to improve its performance and its competitive status in the market (Garcia et al., 2017: 83; Park & Kim, 2015: 489; Popadic et al., 2016: 299) and in the event of organizations endeavors to realize organizational skill, it will need to invest a considerable amount of resources in order to bring in new operations, products and techniques-explorative innovation- and at the same time it will need to maintain the



efficiency of its current operations- exploitative innovation (Popadic et. al., 2016: 397).

The Third Topic/ Practical Aspect of the Study

1. Descriptive results

Table (2) clarifies the arithmetic mean values and the standardized deviation and the relative importance for removing the study variable dimensions (transformational leaders and innovation).

As to the dimensions of the transformational leaders' dimensions, the highest arithmetic mean value for the inspirational impact paragraphs and in value of (4.03), a standard deviation of (0.79) and high relative importance. This indicates that the leaders in the Jordanian Detergents Manufacturing Companies, as per the opinion of workers study specimen, are able to develop loyalty with the subordinates, thereby lead to having them feel in a high degree of enthusiasm for completing their works, as workers look at their superiors to be exemplary which should be followed. Immediately thereafter came, subsequent to individual considerations, also by a high arithmetic mean of (3.95) and a standard deviation of (0.63) and with high relative importance.

As to the arithmetic mean value, relative standard deviation for the innovation, the outcome of the descriptive analysis of worker responses of the study specimen of the existence of high relative importance of their companies concern of the exploratory innovation with an arithmetic mean amounting to (4.17) and a standard deviation of (0.46) , the Jordanian Detergents Manufacturing Companies relies on the search for new method and techniques in their work, thereby leading to expanding its services to its customers in the long run by adding small amendments to its present products. As to the reliance of companies on the exploitative, it was little less than that by high relative importance by an arithmetic mean of (3.98) and standard deviation of (0.69) as the Jordanian Detergent Manufacturing Companies concentrate on seizing the new opportunities which emerge in the work market and receive the applications which appear in the market through regularly developing new distribution channels.

Table (2) Descriptive Statistics for Study Variables

Variable	Dimension	Items	Alpha	mean	Std.	Importance
Transformational Leadership	Individualized consideration	5	0.70	4.02	0.62	Height
	Inspiration impact	5	0.87	4.03	0.79	Height
	Intellectual stimulation	5	0.81	3.95	0.63	Height
Innovation	Exploration	7	0.77	4.17	0.46	Height
	Exploitation	5	0.87	3.98	0.69	Height



Based on the descriptive analysis of the variables and testing of the presumptions, the study concluded the existence of high levels in applying the dimensions of the transformational leaders in the Jordanian Detergents Manufacturing Companies, where the inspirational impact is in the forefront, thence the individual considerations and finally the intellectual motivation.

This result differs from what (Al-Shanti, 2016) study has concluded, which was carried out in the Palestinian Ministry of Health, and (Al-Zahrani, 2016) Study which was conducted in the insurance companies in the Kingdom of Saudi Arabia wherein it indicated to the existence of medium levels for applying the concept of the transformational leadership concept.

The study results also indicated the existence of high levels in applying the two types of exploratory and exploitative innovation in the Jordanian detergents manufacturing companies with the existence of greater attention in favor the exploratory innovation compared with the exploitative innovation.

2. Testing of Hypotheses

Ho1: There is no significant impact of transformational leaders with its dimensions (individual considerations, inspirational impact and intellectual motivation) in the exploratory innovation for the Jordanian Detergents Manufacturing Companies.

Table (3) Indicates to the results of multi impact analysis for the impact of the transformational leaders in the exploratory innovation for the Jordanian Detergents Manufacturing Companies from the point of view of workers in the study specimen, as the results of analysis to the existence of a moral relation between the informational leadership and exploratory innovation as the engagement value tie in is $(0.38)^{R^2}$ factor R amounted to (0.61) and value of the determining factor amounted to R^2 (0.38) , this means that the transformational leadership interprets a $(\%38)$ of the variance in the exploratory innovation and confirmed the value of F of this impact which amount to (32.90) , and moral level of (0.00) . The transactions table indicated the existence of two dimensions of the transformational leadership namely the inspirational impact and the intellectual motivation in the exploratory innovation as the value of B of these two dimensions namely the inspirational impact and intellectual motivation in the exploratory innovation, where the value of "B" amounted for these two dimensions $(0.15$ and $0.49)$ and the value of T $(2.37$ and $7.71)$ and a level of sign $(0.02$ and $0.00)$.



Whilst the individual considerations dimension a moral impacting the exploratory innovation, as value B for these two dimension amounted to (0.15 and 0.49) and the value of T (2.37 and 7.71) with a level of sign of (0.2 and 0.00). Whilst the individual considerations dimension did not have a moral impact in the exploratory innovation, as the value of B amounted to (0.12) and the value of T (1.66) and moral level of (0.10) which is bigger than (0.05) which was adopted in this study. Based on the foregoing results, the first zero presumption cannot be accepted and accept the alternative presumption which provides the presence of a trace with statistical sign to the transformational leadership with its dimensions (individual considerations, inspirational impact and intellectual motivation) in the exploratory innovation for the Jordanian Detergents Manufacturing Companies.

Table (3) Multiple Regression for the Impact of Transformational Leadership on Exploratory Innovation

Model Summary		ANOVA			Coefficient				
R	R ²	F	Df	Sig.	Dimension	B	Std. error	T	Sig.
0.61	0.38	32.90	3	0.00	Individualized consideration	0.12	0.07	1.66	0.10
					Inspiration impact	0.15	0.06	-2.37	0.02
					Intellectual stimulation	0.49	0.06	7.71	0.00

Existence of significance for the transformational leadership in the exploratory innovation for the Jordanian Detergents Manufacturing Companies, and this trace was clear to the two dimensions of the intellectual motivation and inspirational impact, should this impact was not significantly for individual considerations.

This result complies with the conclusions of (Kraft & Bausch, 2016) study where it was indicated that the transformational leaders encourage the exploratory innovation through motivating projects organization and tend towards learning.

Ho2: There is no significant impact of transformational leadership with its dimensions (Individual Considerations, Inspirational Impact and Intellectual Motivation) in the exploitative innovation for the Jordanian Detergents Manufacturing Companies.

Table (4) shows the results of multiple regression analysis for the impact of transformational leadership in the exploitative innovation for the Jordanian Detergents Manufacturing Companies. The results of analysis indicated to the existence of moral relation between the transformational leadership and exploitative innovation where the value of the linkage factor R (0.43) whilst the value of the determining factor R² (0.19), and this means that the transformational leadership interprets a percentage of (19%) of variance in the exploitative innovation and confirmed that the F



value on the morale of this impact which amounts (12.58) and with moral degree of (0.00). the transactions table indicates to the impact of the intellectual motivation in the exploitative innovation, where B value amounted to (0.34) and confirmed the moral of this impact which amounts to (3.10) at the sign level of (0.00). Whilst the individual considerations and inspirational impact do have a moral impact in the exploitative innovation, where the B value thereto amounted to (0.08 and 0.09) with the value of T at (0.68 and 0.70) with none moral sign which amounted (0.50 and 0.49) .

In reliance upon the results of regression, the alternative second zero presumption cannot be accepted and acceptance of the alternative presumption which provides that there is a trace with analytical sign for the transformational leadership with its dimensions (individual considerations, inspirational impact and intellectual motivation) in the exploitative for the Jordanian Detergents Manufacturing Companies.

Table (4) Multiple Regression for the impact of Transformational Leadership on Exploitative Innovation

Model Summary		ANOVA			Coefficient				
R	R ²	F	Df	Sig.	Dimension	B	Std. error	T	Sig.
0.43	0.19	12.58	3	0.00	Individualized consideration	0.09	0.13	0.68	0.50
					Inspiration impact	0.08	0.11	0.70	0.49
					Intellectual stimulation	0.34	0.11	3.10	0.00

The study showed a significance for the transformational leadership in the exploitive innovation for the Jordanian detergents manufacturing companies, this trace was clear for the intellectual motivation and if this is not so with respect to the inspirational impact and individual considerations, it may be that the nature of work of such type of companies in this where the concentration of its work be in the market in which it is active.

This outcome complies with what has been concluded in the study of Kraft & Bausch which indicated that the transformational leaders are promoting for the exploitive innovation most of the time through building market trends.

The Fourth Topic/ Conclusions and Recommendations

Conclusions

1- The managements of such companies have high tendency to utilize this type of leadership out of belief of its capability to realize its organizational objects, in addition to providing sufficient organizational flexibility to deal with workers.



2- The companies give greater attention for searching new ideas and products to provide it to its clients even if it cost them longer time in pursuit of achieving its objects.

3- The subordinates need and more so for the intellectual motivation and inspirational impact for reaching the exploratory stage of new products, way and styles compared with the individual considerations.

4- There is a focus in the work of Jordanian detergent companies in exploiting the current opportunities that appear in the market in which they are more active than exploring opportunities.

Recommendations

1- It is necessary for the Jordanian detergents manufacturing companies to maintain the high level of application of the transformational leadership with all dimensions thereof (inspirational impact, individual considerations and intellectual motivation), to improve its capability to realize the exploratory innovation and exploitative innovation in the work thereof, thereby assisting it in realizing its organizational objects and consolidate its competition capability.

2- It's also important to realize the high and continued equilibrium in attending to the exploratory innovation through which these companies care through it in searching for the new products and the rising markets, new distribution method and the exploitative innovation through which it concentrates on exploiting the propitious opportunities which are not planned.

3- It is important that the Jordanian detergents manufacturing companies increases its concentration on utilizing the intellectual motivation by the leaders as one of transformational leadership dimensions in view of its clear impact whether in the exploratory innovation or in the exploitive innovation to urge the subordinates to submit the new ideas for solving and developing the work problems through searching for new ideas and encouraging solving the problems by the subordinates innovative methods as well as supporting the new and creative forms for performing the work.

4- Finally the study stresses the importance of utilizing the inspirational side by the leaders of these companies since it promotes workers enthusiasm to supervise whatever opportunities that surface in the work environment. This can be made through relating the heroic stories made by the workers as well as implant high values in them.



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