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Impact of Transformational Leadership on Project Management Assets

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Abstract

This study examines the impact of transformational leadership style on project management assets within State owned enterprises (SoE) of Abu Dhabi, UAE. Project management was measured with the help of four characteristics of project management assets acronym VRIO (VRIO is an acronym for Value, Rarity, Imitability and Organisation). The data was collected from 539 employees of State owned enterprises (SoE) of Abu Dhabi and analysed using structural equation modelling (SEM) via Smart PLS 3.0. The data analysis shows that transformational leadership has a positive significant impact on all four characteristics of project management assets acronym value, rarity, inimitability and organizational support. The proposed model explained 0.9%, 7.8%, 8.8% and 6.8% of the variance in Value, Rarity, Imitability and organizational support respectively. Theoretical and practical implications are also provided.

***Keywords*:** Transformational leadership; project management assets; value; rarity; imitability; organization, UAE

1. Introduction

In the global marketplace, companies are increasingly turning to project management as a way of work (Jugdev, 2005). Project management is a field that emphasizes the ability to manage the complexity of project resources while at the same time focusing on the value that the project will bring to the organization. Project management is a very distinct field from traditional management; in project management, managers are constantly faced with completely new challenges, the environment changes from time to time and the resources are limited (Lopez, 2011). Project management has increasingly been recognized to improve the competitive position of a firm; however, the competitive advantage that could have been obtained from the project management process has relatively been understudied in the academic world with primarily focuses having been given on operational aspects in the project management literature (Mathur, Jugdev, & Shing Fung, 2014). Previous empirical research reports on factors that create project management assets and relates them to the Value, Rarity, Imitability and Organization characteristics of the project management process achievement (Jugdev and Mathur 2006 ; Jugdev, Gita, & Fung, 2007; Mathur, Jugdev, & Shing Fung, 2013; Mathur, et al. 2014). Therefore, Project management can be measured with the help of four characteristics of project management assets acronym VRIO and mentioned by (Jugdev & Mathur, 2006; Jugdev et al., 2007). The inter-relationship between resources assets and asset characteristics are presented in their study. Before attention is offered to how characteristics of project management may translate into competitive advantage or may affect employee performance. Societally, we are moving from controlled change to accelerated change nearly beyond control and thus transformational leaders must meet market demands faster and better than before, given the increasingly interdependent economy (Crawford 2005). However, the relationship between leadership and capability is difficult to articulate given the variety of functional leadership behaviours and the range of capabilities.

In project management literatures, some studies have addressed the relations between the transformational leadership and project success (Kozlowski and Ilgen, 2006; Piccolo and Colquitt, 2006; Yang, Huang, & Wu, 2011; Aga, Noorderhaven, & Vallejo, 2016; Lategan & Fore, 2015; Iqbal, Long, Fei, Ba'ith, & Bukhari, 2015; Nubuor, Hongyi, & Frimpong, 2014; Ahmed & M. Abdullahi, 2017; Naeem & Khanzada, 2017). Also some researches have been carried out explaining the mechanisms underlying the relationship between transformational leadership and project performance such as (Anantatmula, 2010; Kissi, Dainty, & Tuuli, 2013; Strukan, Nikolić, & Sefić, 2017). However, limited research addressed the relationship between transformational leadership and capabilities. According to managerial interpretation (sense-making) theory, characteristics that epitomize transformational leaders influence how they scan, interpret, and take actions within their social context and thereby ultimately shape and form the surrounding culture (Menguc, Auh, & Shih, 2007). Thus, transformational leaders are champions, which are generally considered to be key organizational decision-makers (Crawford 2005) that advances dynamic capabilities to directly and positively affect development of project

management assets particular strategic resources (assets), which contribute to a firm's competitive position and tend to be knowledge-based (Jugdev & Mathur, 2006).

The study sought to contribute to a better understanding of the mechanisms through which transformational leadership influence project management assets process through it being valuable, rare, inimitable, and having organizational support . Our study has four specific objectives. Firstly, to examine the impact of transformational leadership on project management assets process in of term of value. Secondly, to examine the impact of transformational leadership on project management assets process in term of rarity. Thirdly, to examine the impact of transformational leadership on project management assets process in of term inimitability. Finally, to examine the impact of transformational leadership on project management assets process in of term organizational support.

2. Literature Review

2.1Project Management Assets (PMA)

Project management is the planning, organizing, directing, and controlling of firm resources for a relatively short-term objective that has been established to complete specific goals and objectives (Kerzner and Kerzner 2017). A firm is a collection of resources that can be tangible (concrete and physical) or intangible (tacit, unspoken but understood; e.g., knowledge-based assets) assets which, a firm control and can use to conceive of or implement strategies (Jugdev, et al. 2007;Barney and Hesterly 2006 ;Teece et al. 1997).

Only a subset of a firm's assets, classified as strategic assets, is a source of its competitive advantage (Amit and Schoemaker 1993; Jugdev, et al. 2007). These strategic assets that contribute to competitive advantage involve explicit and tacit knowledge (Eisenhardt and Santos 2002; Kaplan, Schenkel, von Krogh, & Weber, 2001;Kogut 2000; Nonaka 1994) that is embedded in a company's unique internal skills, knowledge, resources, and ways of working (Rumelt, et al. 1994; Foss 1997; Jugdev, et al. 2007)

Intangible resources can include skills; human assets; information and organizational assets; and relational and reputational assets (Knott 2009). These all represent what a firm has. Another class of intangible resource is capabilities or competences that represent what a firm does (Hill, et al. 2014).

Competences have been defined as the collective learning that gives firms the ability to deploy their resources productively (Prahalad and Hamel 1990). Firm's managers or leaders competencies can improve management skills and influence the behaviour of employees. This makes them arguably more important to a firm's performance than the resources on which they are based, and hence worthy of attention when evaluating the basis of a firm's performance (Knott 2009).

Previous empirical research reports on factors that create project management assets and relates them to the Value, Rarity, Imitability and Organization characteristics of the project management process achievement (Jugdev & Mathur, 2006; Mathur, et al. 2007; Mathur, et al. 2013, 2014). This study takes a step further to link transformational leadership to the project management assets characteristics (V, R, I and O).

2.2Transformational Leadership (TL)

Transformational leadership has been defined as a process in which "leaders and followers raise one another to higher levels of morality and motivation" (Burns 1978; Crawford 2005). Further, transformational leadership has been defined as the one which helps increasing employees' concern and strengthening their level of perception as well as their acceptance of the groups' vision and aims (Bass and Avolio 1994; Green 2014). A chief element of transformation is the ability to cultivate the needs of the follower based on their manner (Crawford 2005). As cited in the work of Crawford (2005) and according to Burns (1978) focusing on needs makes leaders accountable to the follower. First, Burns (1978) contended that followers are driven by a moral need, the need to champion a cause, or the need to take a higher moral stance on an issue. People like to feel that a higher organizational spiritual mission guides their motives (Tichy and Devanna 1986; Crawford 2005). The second need is a paradoxical drive for consistency and conflict. Transforming leaders must help followers make sense out of inconsistency. Conflict is necessary to create alternatives and to make change possible (Crawford 2005). The process of transformation is founded on empathy, understanding, insight, and consideration; not manipulation, power wielding, or coercion (Crawford 2005). The most powerful way to prevail in global competition is still invisible to many companies (Hamel and Heene 1994). However, scholars view transformational leadership as having a direct, positive impact on the performances of employees of companies (Howell and Avolio 1993; Lowe, Kroeck, & Sivasubramaniam, 1996; Waldman, Bass, & Einstein, 1987; Bass, Avolio, Jung, & Berson, 2003; Walumbwa, Avolio, & Zhu, 2008; Caillier 2014).Transformational leaders facilitate new understandings by increasing or altering awareness of issues. Resultantly, they foster inspiration and excitement in placing extra efforts to achieve common goals (Riaz and Haider 2010).

There seems to be general agreement in the literature on four dimensions that constitute transformational leadership. These dimensions are; idealized influence; intellectual stimulation; inspirational motivation; and individualized consideration (Avolio, Zhu, Koh, & Bhatia, 2004; Lindgren and Packendorff, 2009, Aga, Noorderhaven, & Vallejo, 2016). Idealized influence is charismatic behaviours such as role modelling, risk sharing and attributed charisma. Inspirational motivation is shown when a leader conveys a vision that is appealing and inspiring for subordinates and provides them challenging assignments and increased expectations. Intellectual stimulation is consisting of encouraging creativity and change in followers. Individualized consideration is which implies leaders paying attention to each follower's, needs and wants by mentoring, supporting, encouraging and coaching followers to use their competence.

Although the topic of leadership has been abundantly addressed in academic studies for decades, there is a lack of empirical works in project management contexts (Aga et al, 2016). Therefore, this empirical study is an attempt to bridge the gap between transformational leadership and project management assets in SOE in UAE. Transformational leadership dimensions are adopted from (Avolio & Bass, 2004), while project management assets characteristics (VIRO) relationships are derived from (Barney & Hesterly, 2014; Jugdev & Mathur, 2006). Consequently, the following hypotheses are proposed:

H1:Transformational leadership has a positive effect on value.
H2:Transformational leadership has a positive effect on rarity.
H3:Transformational leadership has a positive effect on imitability.
H4Transformational leadership has a positive effect on organization.

3. Research Method

3.1 Overview of the Proposed Conceptual Framework

In this study, the *proposed* model has been derived from the available literature of the models and theories that have been prescribed in the literature. Over the past 30 years, during the evolution processes of theories, many competing frameworks and definitions have emerged as theorists have sought to clarify constructs of resource, offer alternative approaches, and address theoretical inconsistencies (Barney, Ketchen Jr, & Wright, 2011; Kozlenkova, Samaha, & Palmatier, 2014). With this, a comprehensive definitional foundation of Resource-Based View (RBV), the lack of which may have been an underlying cause of confusion about the theory and its application in prior academic research have been reviewed (Priem and Butler 2001); (Kozlenkova, et al. 2014). The logic of Resource-Based View (RBV) suggests that variance in competitive outcomes stems from differences in the characteristics among rivals' resources and capabilities (Barney 1991). Specifically, resources or capabilities that are valuable and rare convey a potential for competitive advantage (Morrow Jr, Sirmon, Hitt, & Holcomb, 2007). However, possession alone is insufficient to gain a competitive advantage and create value; and therefore, firms must effectively manage their resources to gain an advantage and to realize value creation (Sirmon, Hitt, & Ireland, 2007). Value creation occurs as firms exceed their competitors' ability to provide solutions to customers' needs (e.g., competitive advantage), while simultaneously maintaining or improving their long-term profit margins, thereby creating wealth for owners (Hoopes, Madsen, & Walker, 2003; Sirmon, et al. 2007; Morrow Jr, et al. 2007). A measure of value creation is a firm's ability to meet or exceed investors' performance expectations (Morrow Jr, et al. 2007).

Higher priority is given for techniques and theories that attempt to structure the project management (Knott 2009). Priority given for amongst these is the resource-based view of the firm Wernerfelt 1984; Barney 1991), From the literature of resource-based view, the value-rarity-imitability-organization (VRIO) technique (Barney 2002) has become the most widely advocated method for assessing a firm's resources (Knott 2009). In common with other strategy tools, this technique originated in theory development (Barney 1991) and not initially as a tool for practical application (Knott 2009). Subsequent development as a means of understanding a firm's resources (Barney 2002) has helped VRIO to diffuse widely, but it is not clear that this has fully addressed the perceived imbalance in techniques available for the resource and market aspects of strategic analysis (Wernerfelt 1995; Knott 2009). Management is the organization and coordination of various economic resources in a business (3200). Transformational leadership can have a significant impact on project management assets (processes and resources).

As mentioned above, the proposed model of this study was developed according to previous literatures to link the transformational leadership and the characteristics of project management assets. This proposed model can be seen in Fig.1 below. While examining the proposed model, it can be seen that transformational leadership style predicts project management assets characteristics VIRO (value, rarity, imitability and organization) .Transformational leadership variable is adopted from (Avolio & Bass, 2004), whilst project management assets characteristics (VIRO) relationships are derived from (Barney & Hesterly, 2014;Jugdev & Mathur, 2006). The proposed extended model examines the relationship between transformational leadership as independent variable and value, rarity, imitability and organization as dependent variables. The proposed model has four hypotheses to test.

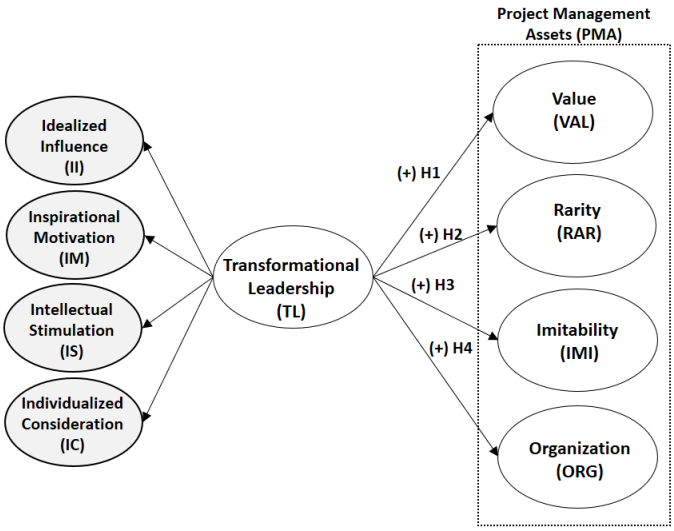


Figure 1:The proposed conceptual framework

3.2. Development of Instrument

A 36-item questionnaire was developed for this study, and in line with existing literature in transfornatioanl leadership and the project management assets fields, a multi-item Likert scale was applied (Lee, Yoon, & Lee, 2009). Variables were measured using a Likert Scale which recommended in the previous studies (Isaac, Abdullah, Ramayah, & Mutahar, 2017; Isaac, Abdullah, Ramayah, Mutahar, & Alrajawy, 2017; Isaac, Abdullah, Ramayah, & Mutahar Ahmed, 2017), with 7 being 'Strongly Agree' and 1 being 'Strongly Disagree'. Because respondents were Arabic-speakers, it was vital that the questionnaire be precisely translated from English to Arabic. Therefore a back translation was performed, a procedure extensively applied to test the precision of the translation in a cross-cultural survey (Brislin, 1970). Validated instruments were adapted from related previous studies to measure the variables of this study as shown in Appendix A. With regard to item count for every construct, this study followed the directions of Hayduk & Littvay (2012) who suggested using the few best items, and that many items are rarely warranted because additional redundant items provide less research benefit.

3.3. Data Collection

Data collection was conducted using a self-administered paper questionnaire which was delivered 'in-person' from December 2016 till February 2017 to employees. The employees were approached while in main facilities at Abu Dhabi Water and Electricity Authority (ADWEA), Dubai Electricity and Water Authority (DEWA), Sharjah Electricity and Water Authority (SEWA) and Federal Electricity and Water Authority (FEWA), they were given the questionnaire to be filled and left at the same place to be collected in the same day. A total of 900 questionnaires were distributed, with 560 sets returned of which 541 responses were useful for the analysis. The final sample size was considered as adequate (Krejcie & Morgan, 1970; Tabachnick & Fidell, 2012). The 62% response rate is considered very good (Cable & Derue, 2002) and above average (Baruch & Holtom, 2008)by comparison with other studies found in the relevant literature. A total of 19 questionnaires were deleted of which 15 cases were removed) missing data for more than 15% of the questions) and 4 cases involving straight lining.

4. Data Analysis and Results

Partial Least Squares (PLS) Structural Equation Modeling-Variance Based (SEM-VB) was utilized to examine the research model in this research, by using the SmartPLS 3.0 software (Ringle, Wende, & Becker, 2015). A two-stage analytical method (Anderson & Gerbing, 1988; Hair, Hult, Ringle, & Sarstedt, 2017) comprising (i) measurement model assessment (validity and reliability) and (ii) structural model assessment (testing the hypothesized relationships) was used after conducting the descriptive analysis. This two-stage analytical method consisting of a measurement model and a structural model assessment is superior to a one-step assessment (Schumacker& Lomax, 2004; Hair et al., 2010). While the measurement model explains the measurement of each construct, the structural model defines the relationship between the variables in the structural model (Hair et al., 2017). The use of PLS technique for both the measurement and the structural model in this research is due to its ability to perform simultaneous analysis, resulting in more precise assessments (Barclay, Higgins, & Thompson, 1995). The main reasons for choosing SEM as a statistical method for this study is that SEM offers a simultaneous analysis which leads to more accurate estimates(Isaac, Abdullah, Ramayah, & Mutahar, 2017a; Isaac, Abdullah, Ramayah, & Mutahar, 2017b; Isaac, Masoud, Samad, & Abdullah, 2016).

4.1 Descriptive analysis

Table 1 presents the mean and standard deviation of each variable in the current study. The respondents were asked to indicate their opinion in relation to transformational leadership and human capital based on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). Imitability score the highest with mean 4.697.90 out of 7.0, with a standard deviation of 1.144. Idealized influence score the lowest with mean 4.078 out of 7.0, with a standard deviation of 1.360.

4.2Measurement Model Assessment

Construct reliability and validity (consisting of convergent and discriminant validity) were utilized to test the measurement model. The individual Cronbach's alpha coefficients were examined to ascertain the reliability of each core variable in the measurement model (construct reliability). The values of all the individual Cronbach's alpha coefficients in this study were between 0.768 to 0.899, which exceeded the suggested value of 0.7 (Kannana & Tan, 2005; Nunnally & Bernstein, 1994). Furthermore, for testing construct reliability, the values of all the composite reliability (CR) were between 0.852 to 0.937, which exceeded 0.7 (Werts, Linn, & Jöreskog, 1974; Kline, 2010; Gefen, Straub, & Boudreau, 2000). Therefore, as illustrated in Table 1, construct reliability has been satisfied as Cronbach's Alpha and CR were relatively error-free for all the constructs.

Assessment of *Indicator reliability* was done by using factor loadings. When the associated indicators have much in common, this is captured in the construct and indicated by high loadings on the construct (Hair et al., 2017). According to Hair et al. (2010), values exceeding 0.70 indicate significant factor loadings. Table 1 shows that all items in this study had factor loadings higher than the recommended value of 0.7 except for the items II4, IS1, IC4, VAL4, ORG1, ORG4, and ORG6 which eliminated from the scale due to low loadings.

Average variance extracted (AVE) was used in this study to assess *Convergent validity*, whichshows the degree that a measure correlates positively with alternative measures of the same construct. The values of all AVE were between 0.590and 0.833, which exceeded the recommended value of 0.50 (Hair et al., 2010). Therefore, all constructs have fulfilled the convergent validity satisfactorily, as illustrated in Table 1.

Table 1: *Mean, standard deviation, loading, cronbach's Alpha, CR and AVE*

Constructs	Item	Loading (> 0.5)	M	SD	α (> 0.7)	CR (> 0.7)	AVE (> 0.5)
Idealized Influence (II)	II1	0.920	4.078	1.360	0.899	0.937	0.833
	II2	0.923					
	II3	0.894					
	II4	Deleted					
Inspirational Motivation (IM)	IM1	0.780	4.077	1.230	0.811	0.876	0.639
	IM2	0.812					
	IM3	0.782					
	IM4	0.822					
Intellectual Stimulation (IS)	IS1	Deleted	4.087	1.311	0.829	0.898	0.746
	IS2	0.858					
	IS3	0.882					
	IS4	0.850					
Individualized Consideration (IC)	IC1	0.921	4.124	1.348	0.891	0.932	0.821
	IC2	0.916					
	IC3	0.882					
	IC4	Deleted					
Value (VAL)	VAL1	0.896	4.562	1.159	0.887	0.918	0.691
	VAL2	0.800					
	VAL3	0.780					
	VAL4	Deleted					
	VAL5	0.788					
	VAL6	0.884					
Rarity (RAR)	RAR1	0.903	4.557	1.238	0.794	0.880	0.710
	RAR2	0.804					
	RAR3	0.816					
Imitability (IMI)	IMI1	0.776	4.697	1.144	0.768	0.852	0.590
	IMI2	0.763					
	IMI3	0.730					
	IMI4	0.803					
Organization (ORG)	ORG1	Deleted	4.596	1.005	0.814	0.878	0.645
	ORG2	0.862					
	ORG3	0.727					
	ORG4	Deleted					
	ORG5	0.755					
	ORG6	Deleted					
	ORG7	0.858					

Note: M=Mean; SD=Standard Deviation, α= Cronbach's alpha; CR = Composite Reliability, AVE = Average Variance Extracted.
Key: II: idealized influence, IM: inspirational motivation, IS: intellectual stimulation, IC: individualized consideration, VAL: value , RAR: rarity, IMI: imitability, ORG: organization

The extent that items differentiate among constructs or measure distinct concepts is shown by Discriminant validity. Cross-loadings andFornell-Larcker were used to assess the discriminant validity of the measurement model. Usually, cross-loadings are used as the first step in testing discriminant validity of the indicators (Hair et al., 2017). In this study, the indicators' outer loadings on a construct exceeded all its cross-loadings with other constructs, and hence, the cross loading criterion had satisfied the requirements (refer to Table 2).

Table 2: *Results of discriminant validity by thecross loading*

	II	IM	IS	IC	VAL	RAR	IMI	ORG
II1	**0.920**	0.478	0.435	0.258	0.182	0.180	0.186	0.134
II2	**0.923**	0.516	0.474	0.269	0.173	0.157	0.176	0.147
II3	**0.894**	0.476	0.456	0.226	0.186	0.185	0.178	0.146
IM1	0.372	**0.780**	0.377	0.243	0.237	0.195	0.234	0.195
IM2	0.407	**0.812**	0.526	0.275	0.227	0.212	0.223	0.221
IM3	0.418	**0.782**	0.388	0.223	0.200	0.171	0.221	0.156
IM4	0.515	**0.822**	0.470	0.224	0.191	0.177	0.192	0.209
IS2	0.404	0.431	**0.858**	0.219	0.211	0.195	0.208	0.170
IS3	0.444	0.491	**0.882**	0.232	0.158	0.179	0.146	0.155
IS4	0.443	0.511	**0.850**	0.217	0.154	0.142	0.144	0.147
IC1	0.237	0.274	0.210	**0.921**	0.196	0.188	0.189	0.135
IC2	0.270	0.275	0.261	**0.916**	0.222	0.206	0.210	0.165
IC3	0.242	0.272	0.229	**0.882**	0.162	0.163	0.153	0.100
VAL1	0.192	0.245	0.193	0.174	**0.896**	0.674	0.582	0.606
VAL2	0.137	0.184	0.139	0.194	**0.800**	0.570	0.624	0.481
VAL3	0.104	0.201	0.152	0.135	**0.780**	0.611	0.641	0.632
VAL5	0.192	0.232	0.186	0.179	**0.788**	0.493	0.667	0.645
VAL6	0.178	0.237	0.158	0.204	**0.884**	0.674	0.597	0.601
RAR1	0.174	0.215	0.189	0.164	0.684	**0.903**	0.590	0.616
RAR2	0.157	0.171	0.151	0.194	0.596	**0.804**	0.630	0.475
RAR3	0.150	0.209	0.161	0.164	0.553	**0.816**	0.626	0.615
IMI1	0.148	0.174	0.111	0.186	0.620	0.601	**0.776**	0.491
IMI2	0.127	0.213	0.149	0.172	0.545	0.606	**0.763**	0.591
IMI3	0.162	0.206	0.161	0.128	0.457	0.462	**0.730**	0.443
IMI4	0.167	0.235	0.162	0.143	0.662	0.569	**0.803**	0.741
ORG2	0.132	0.201	0.155	0.125	0.597	0.491	0.661	**0.862**
ORG3	0.115	0.177	0.110	0.111	0.639	0.652	0.505	**0.727**
ORG5	0.123	0.206	0.169	0.133	0.489	0.561	0.564	**0.755**
ORG7	0.130	0.199	0.142	0.102	0.584	0.485	0.650	**0.858**

Key: II: idealized influence, IM: inspirational motivation, IS: intellectual stimulation, IC: individualized consideration, VAL: value , RAR: rarity, IMI: imitability, ORG: organization

Table 3 displays the results for discriminant validity by using the Fornell-Larcker criterion. It was found that the square root of the AVEs on the diagonals (shown in bold) are greater than the correlations between constructs (corresponding row and column values), indicating strong correlation between the constructs and their respective indicators as compared to the other constructs in the model (Fornell & Larcker, 1981; Chin, 1998). According to Hair et al. (2017), this indicates a good discriminant validity. Furthermore, the exogenous constructs have a correlation of less than 0.85 (Awang, 2014). Therefore, all constructs had their discriminant validity fulfilled satisfactorily.

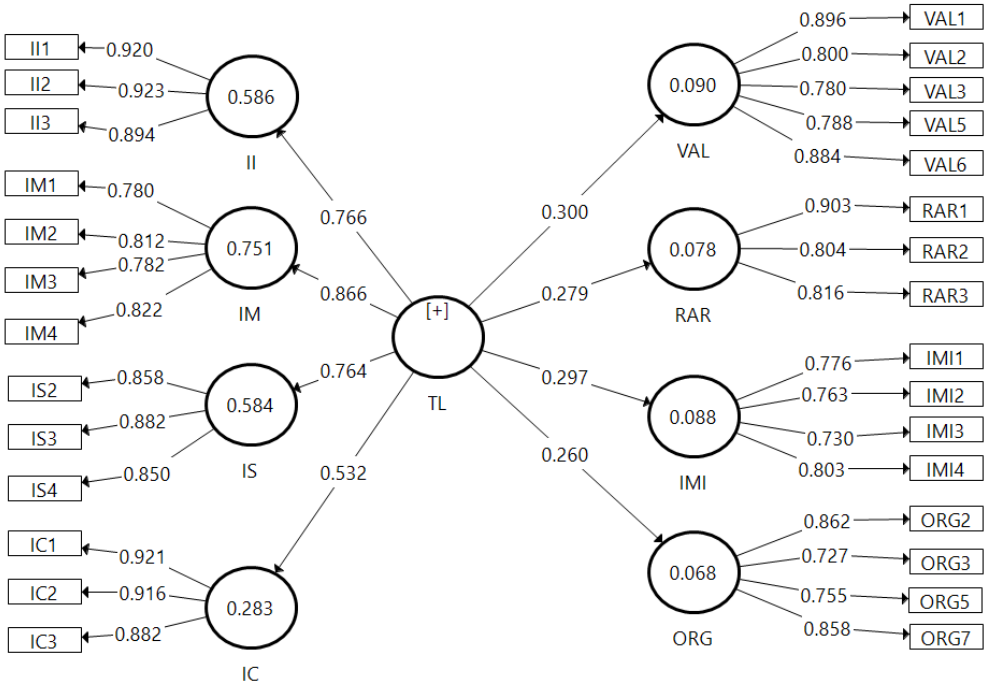
Table 3: *Results of discriminant validity by Fornell-Larcker criterion*

	Factors	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
		IC	II	IM	IMI	IS	ORG	RAR	VAL
1	IC	**0.906**							
2	II	0.276	**0.912**						
3	IM	0.302	0.538	**0.799**					
4	IMI	0.203	0.197	0.271	**0.768**				
5	IS	0.258	0.499	0.554	0.191	**0.863**			
6	ORG	0.148	0.156	0.245	0.745	0.182	**0.803**		
7	RAR	0.205	0.190	0.236	0.728	0.199	0.678	**0.842**	
8	VAL	0.214	0.197	0.267	0.745	0.201	0.715	0.727	**0.831**

Note: Diagonals represent the square root of the average variance extracted while the other entries represent the correlations.
Key: II: idealized influence, IM: inspirational motivation, IS: intellectual stimulation, IC: individualized consideration, VAL: value , RAR: rarity, IMI: imitability, ORG: organization

4.3 Structural Model Assessment

The structural model can be tested by computing beta (β), R^2, and the corresponding *t*-values via a bootstrapping procedure with a resample of 5,000 (Hair, Hult, Ringle, & Sarstedt, 2017). They also suggestedlooking at the effect sizes (f^2) and the predictive relevance (Q^2). While *p*-value ascertains the existence of the effect, the effect size is not shown(Sullivan & Feinn; 2012).



Key: TL: transformational leadership, II: idealized influence, IM: inspirational motivation, IS: intellectual stimulation, IC: individualized consideration, VAL: value , RAR: rarity, IMI: imitability, ORG: organization

Figure 2:PLS algorithm results

Figure 2 and Table 4 depict the structural model assessment, showing the resultsof the hypothesis tests, with 4 out of the 4 hypotheses are supported. Transformational leadership significantly predict value, rarity, imitability, and organization. Hence, H1, H2, H3, and H4 are accepted with (β = 0.300, t= 5.862, p <0.001), (β = 0.279, t= 5.628, p <0.001), (β = 0.297, t= 6.059, p <0.001), and (β = 0.260, t= 5.568, p <0.001) respectively.

The strength of the relationship between exogenous and endogenous constructs are measured by the standardised path coefficients, which in this case show that the direct effects of transformational leadership on value is much stronger than the influence on other variables. The values of R^2 have an acceptable level of explanatory power, indicating a substantial model (Cohen, 1988;Chin, 1998).

Table 4: *Structural path analysis result*

Hypothesis	Relationship	Std Beta	Std Error	t-value	p-value	Decision	R^2
H1	TL→VAL	0.300	0.051	5.862	0.000	Supported	0.090
H2	TL→RAR	0.279	0.049	5.628	0.000	Supported	0.078
H3	TL→ IMI	0.297	0.049	6.059	0.000	Supported	0.088
H4	TL→ ORG	0.260	0.047	5.568	0.000	Supported	0.068

Key: TL: transformational leadership, VAL: value , RAR: rarity, IMI: imitability, ORG: organization

5. Discussion

In this study, conceptual model was developed as illustrated in Figure 1, based on the reviews of previous literature to link the area of transformational leadership style, as independent variable to project management assets characteristics in term of value, rarity, imitability and organization, as dependent variables. This is in turn leads to enhance understanding of the role played by transformational leadership in terms of project management assets characteristics in state-owned enterprises SoE in the United Arab Emirates. The study found that transformational leadership positively affect project management assets processes in term of the valuable factor with significant levels of (β = 0.300, t= 5.862, p <0.001, explains 9.0 % of variance). This is explained by the fact that the transformational leaders can enhance project management assets processes through improving business performance, increasing profitability, and responding to environmental threats and opportunities. These results are in line with previous studies in

Likewise, it was founded that transformational leadership significantly predicts the project management process being rare with significant levels of (β = 0.279, t= 5.628, p <0.001, explains 7.8 % of variance. This is explained by the fact that the more respects, encouragement and motivations to employees by project leader or mangers, the more the employees are able to work according to specifications of job description and to execute activities according to design with an error-free performance and have stakeholders best interests at heart. This in turns leads to make project management processes and resources rare, where competitors do not possess them. Additionally, transformational leadership was found to positively affect inimitability with significant levels of (β = 0.297, t= 6.059, p <0.001, explains 8.8 % of variance). This is explained by the fact the more the leaders and mangers are able to respect, encourage and motivate the employees, the more the employees to work according to specifications of job description and to execute activities according to design with an error-free performance and have stakeholders best interests at heart. This in turn leads to make project management asset processes unique and hard to imitate and specific to the business. Finally, transformational leadership was found to positively affect organizational support with significant levels of (β = 0.260, t= 5.568, p <0.001 explains 6.8 % of variance). This is explained by the fact that the more project management asset processes are supported by leaders or top management, The more the employees are able to work according to specifications of job description and to execute activities according to design with an error-free performance and have stakeholders best interests at heart.

These findings answer the questions raised by Turner and Müller (2005), who emphasized that the literature of project management failed to give sufficient attention to the role of leadership style for project managers. It also is found that transformational leadership has positively effect on project assets characteristics in term of Value, Rarity, Imitability and Organisational support. This study adds an empirical model to project management literature, which links the transformational leadership and characteristics of project management assets for the first time based on (Besner & Hobbs, 2004; Avolio & Bass, 2004; Jugdev & Mathur, 2006; Kozlowski and Ilgen, 2006; Piccolo and Colquitt, 2006; Mathuret al., 2007;Yang et al., 2010; Mathur et al., 2013; Fortune et al., 2013;Aga el al., 2016)

6. Implications, limitations andFuture Directions

6.1 Implications for research

This study contributes in the literature of project management by integrating transformational leadership and characteristics of project management assets (VRIO) model. This in turn contributes to understand the impact of transformational leadership in improving the project management processes and capabilities. The results of this research indicate transformational leadership has significant effect on the characteristics of project management assets in term of value, rarity, inimitability and organizational support.

This concept has significant value for researchers interested in project management. It is differentiated from prior research that has explored the link between transformational leadership and characteristics of project management assets (VRIO). It can be distinguished from previous models in proposing that transformational leadership as an independent variable that is required for enhancing project assets to be valuable, rare, inimitable and organizationally supported to contribute to project management outcomes. This research offers empirical support to the theoretical relevance of transformational leadership, valuable, rare, inimitable, and organizational

conditions of resources and capabilities that permit efficient and effective value creation. (Karpen, Bove, Lukas, & Zyphur, 2015).

6.2 Implication for practice

The United Arab Emirates has a long-term strategy which aimed to develop a reliable and efficient administration to its State-owned Enterprises SoE by improving the management of its assets to deliver lasting benefits for all its citizens and gain recognition around the world. The implications of this study could provide significant benefits to managerial boards and policy makers at these enterprises on how to utilize its strategic assets in a way that enhance profitability, productivity and effectiveness of these enterprises . A number of practical implications were found such as understanding the factors that influence the project management assests factor, which leads to improving professional practice, professional development and quality of work. Significantly, the implications of using the proposed model provide an understanding of the relationships of key determinants to leadership, which leads to improving the characteristics of project management assets which in turn leads to the productivity and effectiveness.

This research also contributes to practice by focusing managerial attention to project management assets as sources of competitive advantage. It highlights that project management assets are not only a set of tools and techniques to achieve a project objectives, but also include intangible elements such as competencies of leaders and subordinates that are embedded in the routines and relationships of an organization.

Moreover, this research could build on an increased awareness among State-owned enterprises in the UAE of the importance of focusing on factors which are additional to the VRIO-attributes when analyzing potential strategic resources (Andersén, 2011), besides representing a useful instrument to assist top management to come out with a list of potential competitive advantages of the available sources (Lin, Tsai, Wu, & Kiang, 2012). In addition to improve resource specifying and selection by acknowledging the positive-only tenor of VRIO materials (Knott, 2015).

7. Limitations and Suggestions for Future Work

In addition to the limited scope of the study and limitations with regard to sample size, response rate, and self-report bias, it is believed that this study has a valid and reliable instrument to test relationships between the factors and examine hypotheses that the transformational leadership will predict valuable, rare, inimitable and organization characteristics of project management assets. Moreover, cross-sectional was used as the research design of this current research whereby all the variables incorporated in the hypothesized model were evaluated at a single point in time (Nusari, Al-Falasi, Alrajawy, Khalifa, & Isaac, 2018;Aldholay, Isaac, Abdullah, Alrajawy, & Nusari, 2018; Mutahar, Daud, Ramayah, Isaac, & Aldholay, 2018). According to De Wulf (1999), no definite conclusions can be drawn from such an approach, specifically regarding the causality of relationships among variables. Since this is the first research that addressed the relationship between transformational leadership and the characteristics of project management assets, we strongly encourage researchers to further validate and extend our model. In addition to that, We also invite research in future that focuses on mediating role of project management assets characteristics (VRIO) in the relationship between transformational leadership and project performance.

One of the limitations of this study is that the data gathered was cross-sectional rather than longitudinal in nature. The longitudinal method might improve the understanding of the associations and the causality between variables (Isaac, Abdullah, Ramayah, & Mutahar, 2017; Isaac, Abdullah, Ramayah, Mutahar, & Alrajawy, 2017; Isaac, Abdullah, Ramayah, & Mutahar Ahmed, 2017). Future research should be conducted to investigate the relationship between variables by conducting cross-cultural studies as recommended by previous studies (Isaac, Abdullah, Ramayah, & Mutahar, 2017a; Isaac, Abdullah, Ramayah, & Mutahar, 2017b; Isaac, Masoud, Samad, & Abdullah, 2016).

8. Conclusion

Organizations should increase spending on research and development in order to increase the organizational effectiveness (Osama Isaac, Abdullah, Ramayah, Mutahar, & Alrajawy, 2018; Osama Isaac, Abdullah, Ramayah, & Mutahar, 2018; Alrajawy, Mohd Daud, Isaac, & Mutahar, 2016). The United Arab Emirates has always been a pioneer in wide range of aspects among its neighbours and around the world (World Development Indicators, 2017; World Economic Forum, 2014). However, its State-owned Enterprises SoE is striving to improve strategic assets, which in turn its enhancing their overall performance, the findings of this study could be considered as one of the initiatives to serve on that direction. The main objective of this study is to determine factors that affect strategic assets within state-owned enterprises in the United Arab Emirates. Despite various constraints to the study, the results have been encouraging, as it has managed to throw some lights on a new perspective. This study proposed a model, which include transformational leadership as independent variables and project management characteristics namely, value, rarity, imitability and organization as the dependent variables. The results revealed

that transformational leadership as independent variable significantly explain 0.9%, 7.8%, 8.8% and 6.8% of the variance in Value, Rarity, Imitability and organizational support respectively. The implications of this study from the perspective of research and practitioners have been deliberated, limitations have been noted and some directions for future research have been suggested

Appendix

Appendix A

Instrument for varibles

Varible	*Measure*	*Source*
Idealized Influence (II)	II1: Leaders instill pride in others for being associated with them. II2: Leaders go beyond self-interest for the good of the group. II3: Leaders act in ways that build others' respect for them. II4: Leaders talk about their most important values and beliefs.	(Avolio & Bass, 2004)
Inspirational Motivation (IM)	IM1: Leaders talk optimistically about the future. IM2: Leaders talk enthusiastically about what needs to be accomplished. IM3: Leaders articulate a compelling vision of the future. IM4: Leaders express confidence that goals will be achieved.	
Intellectual Stimulation (IS)	IS1: Leaders re-examine critical assumptions to question whether they are appropriate. IS2: Leaders seek differing perspectives when solving problems. IS3: Leaders get others to look at problems from many different angles. IS4: Leaders suggest new ways of looking at how to complete assignments.	
Individualized Consideration (IC)	IC1: Leaders treat others as individuals rather than just as a member of a group. IC2: Leaders consider an individual as having different needs, abilities, and aspirations from others. IC3: Leaders seek a differing point of view when dealing with the organizational issues. IC4: Leaders help others to develop their strengths.	
Value (VAL)	VAL1: Project management has helped us be better, faster and cheaper in what we do. VAL2: Project management has increased our profitability. VAL3: Project management has increased our overall business performance. VAL4: Managing things in the form of projects at my organization help us respond to industry threats and opportunities. VAL5: We used project management to provide better products and services. VAL6: Project management is a source of Competitive Advantage to my company.	(Kam Jugdev & Mathur, 2006)
Rarity (RAR)	RAR1: We made rare decisions in the past which helped us achieve success through project management. RAR2: Organizations who do not use project management the way we do have a Cost Disadvantage. RAR3: It will be Difficult to copy practice of project management in my company.	
Imitability (IMI)	IMI1: Many organizations in our industry do not practice project management the way we do. IMI2: How we practice project management makes the practice unique to my organization. IMI3: Even if 1/3 of those people that practice project management in my company lest tomorrow, project management will still not change. IMI4: Relative to our competitors, project management in my company is unique.	
Organization (ORG)	ORG1: We are well organized to practice project management at my organization with policies, procedures, and routines. ORG2: Project management is important to the mission of our organization. ORG3: Project management is an Organization-wide initiative. ORG4: Executive at my organization have formal project management roles. ORG5: Executive at my organization are effective at their project management roles. ORG6: We benchmark regularly to assess best practices in project management that could improve our practices. ORG7: Our project management practice has improved year by year.	

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