

## A study of the relationship between transformational leadership and time management efficiency. Analysis from Libyan construction companies

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### دراسة العلاقة بين القيادة التحويلية وكفاءة إدارة الوقت. تحليل من شركات الانشاء الليبية

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#### Abstract:

Transformational leadership is essential to the effectiveness of construction projects in Libya, as it improves time management in challenging political and economic circumstances. Hence, this study aims to explore how time management and other relevant aspects of building projects in Libya are affected by transformational leadership styles. To accomplish this objective, this research employed a quantitative method, gathering information from managers and industry experts in Libya's construction industry utilizing a structured questionnaire. This survey analyzed 260 questionnaires. The data evaluation indicated that transformational leadership styles have a positive and significant influence on project management efficiency and time management in Libya's building industry. The outcomes illustrate the crucial relevance of implementing transformational leadership approaches that would enhance the overall success of the project and drive success in the dynamic Libyan construction sector.

**Keywords:** Transformational Leadership, Project Management Efficiency, Libyan Construction Sector, time management.

#### المخلص

تعد القيادة التحويلية ضرورية لفعالية مشاريع البناء في ليبيا، حيث تعمل على تحسين إدارة الوقت في ظل الظروف السياسية والاقتصادية الصعبة. ومن ثم، تهدف هذه الدراسة إلى استكشاف كيفية تأثير إدارة الوقت والجوانب الأخرى ذات الصلة بمشاريع البناء في ليبيا بأنماط القيادة التحويلية. ولتحقيق هذا الهدف، استخدم هذا البحث أسلوبًا كميًا، حيث تم جمع المعلومات من المدراء وخبراء الصناعة في قطاع البناء في ليبيا باستخدام استبيان منظم. وقد حلل هذا الاستبيان 260 استبيانًا. أشار تقييم البيانات إلى أن أساليب القيادة التحويلية لها تأثير إيجابي وهام على كفاءة إدارة المشاريع وإدارة الوقت

في صناعة البناء في ليبيا. وتوضح النتائج الأهمية الحاسمة لتطبيق أساليب القيادة التحويلية التي من شأنها أن تعزز النجاح العام للمشروع وتدفع عجلة النجاح في قطاع البناء الليبي الديناميكي.

**الكلمات المفتاحية:** القيادة التحويلية، كفاءة إدارة المشاريع، قطاع البناء الليبي، إدارة الوقت .

## Introduction

Effective leadership is essential for the successful completion of construction projects. The transformational leadership style has a positive impact, resulting in increased levels of team engagement and project performance (Tabassi et al. 2016). Leadership has a significant influence in project management, especially those in the construction industry, when projects are multifaceted and involve numerous parties with an interest in the outcomes. Establishing the vision, making sure the team is on agreement with the mission of the project, and maintaining a good and motivated environment during the project's duration are the responsibilities of leaders in the field of leadership. The project director aims to accomplish the project through various activities and visions, rather than only supervising it. Effective management of projects leadership guarantees timely, economical, and high-quality project completion (Gharehbaghi and McManus, 2003). The success of any project and its favorable outcomes can only be achieved when leadership capabilities are taken into account throughout the planning phase (Latiffi et al. 2021).

Time management is essential for the successful of the project management. Transformational leaders are able to create an environment that encourages effective time management, astute decision-making, and timely task completion. Transformational administrators promote effective use of time throughout all project progression phases by having the ability to manage several plans and complex initiatives (Mohammed and Alipour, 2014).

## 2. Literature review

Scholars have examined the influence of transformational leadership on the performance of organizations, identifying time efficiency as the most significant factor across several relationships. An investigation found that transformative leadership has a direct impact on how firms manage their time. Encouraging innovation and enhancing team performance can be achieved through an effective leadership style that priorities these elements. Significant achievements, adherence to deadlines and timetables, promotion of effective time management, and a robust sense of responsibility and accountability are indicative of leaders demonstrating transformational abilities (Quiros, 2020). Despite the challenges of managing time throughout various phases of project development, transformational leaders has the capability to meet and ensure project timeframes while overseeing complex initiatives (Mohammed and Alipour, 2014).

Studies covers various variables, including inspiring motivation, intellectual stimulation, idealised influence, and individualized consideration. All the aforementioned factors facilitate effective time management by fostering a proactive and future-oriented mentality across staff members To foster creativity and sound decision-making among employees, it is essential to intellectually engage them and provide efficient time management, while also providing tailored support from their supervisors and managers (Shirey, 2016). In transformational leadership, time management and the emphasis on ethical conduct and honesty are very essential and important equally. The reliable environment that creates responsibility among team members regarding their responsibilities, including project contributions and time management, stems from leaders who demonstrate ethical behavior and keep high standards of integrity.

The reliable atmosphere which make the team members more responsible for their tasks including project contributions and time management are resulting from leaders who demonstrate ethical behavior and maintain high standards of integrity .

Along with the implementation of strict management strategies, the successful completion of projects and the implementation of effective time management strategies demonstrated a strong sense of responsibility.

### 3. Theoretical context

Transformational leadership is growing as a significant concept in administrative studies. In addition to encouraging followers, it improves organizations' performance. This method of leadership consists of four fundamental elements: idealised influence, inspiring motivation, intellectual stimulation, and individualized concern (Quiros, 2020). James MacGregor Burns introduced transformative leadership in 1978, and Bernard Bass expanded on it in the 1980s. Educational institutions benefit from transformational leaders' proactive leadership and determination to adapt to changing circumstances and ensure success and competitiveness (FetriYeni, 2016).

Developed and refined ideas and models underpin the transformational leadership paradigm.

The Complete Leadership Model, developed by Bernard Bass and Bruce Avolio, is a fundamental concept in leadership. Based to this paradigm, there are three distinct categories of leadership behaviors: transactional, transformational, and laissez-faire. Whereas transactional leadership places more emphasis on exchanges and rewards, and laissez-faire leadership is typified by a lack of involvement, transformational leadership is characterised by actions that motivate, energize, and show concern for followers. (Bass and Avolio, 1994).

### 4. Studies supporting the Hypothesis

Hypothesis suggests that there is a favourable correlation between transformative leadership and time management efficiency. The hypothesis is confirmed by scientific evidence, showing that project teams' time management improved when transformational leadership techniques are utilised (Ahmad et al., 2023). Pertaining to the improvement of the timeline and budget performance in industrial studies and development projects, transformational leadership improves the aforementioned factors, besides project schedule compliance and task completion (Keller 1992).

### 5. Methodology

The current study used quantitative research methodology to assess the effect of transformational leadership style on project management effectiveness in Libyan construction companies. This approach simplifies the collecting of quantitative data and enables statistical analysis in finding patterns, correlations, and causal linkages between transformational leadership and project management effectiveness (Creswell, 2020).

In this study, a cross-sectional survey approach was used to enable the gathering of data from a substantial sample of project managers and employees in Libya at a specific time.

To guarantee clear responses and an opportunity to explore particular areas more deeply as needed, the researcher chose to employ a face-to-face technique that would allow the researcher and participants to engage directly. This method allows the researcher to quickly clarify any ambiguities in the questionnaire items, which increases the accuracy and reliability of the data collected (Saunders et al., 2019). The data-collecting method entailed personally visiting company offices and construction sites to distribute the questionnaires. The participants were selected for the study using a random selection method. According to the anticipated number of construction specialists in the particular organizations, the survey's sample size is 260 to attempt to uncover significant consequences and extrapolate the results to the general population.

The data was analyzed using ANOVA, which was chosen to ensure a comprehensive examination of the relationships between time management efficiency and transformational leadership. Internal consistency and reliability were measured using Cronbach's alpha, and the results were within the acceptable range. The sampling method used in this survey is a random sampling approach and a physical questionnaire. This method enables the acquisition of data of superior quality and reliability. Time management components have been taken from Macan's (1994) process model. Participants evaluated claims such as "I set daily, weekly, and monthly goals" and "I prioritize my tasks to ensure completion of critical tasks first". Considering the context of project management, these items reflect how effectively personal approaches to time management function. This study, conducted at a Libyan construction company, used a random sampling technique to ensure that each respondent had an equal opportunity to participate in the inquiry and consider a variety of ethical issues and potential biases.

## 6. Results

The variable of the time managements was consist of thirteen (13) items, these item have covered the time management in order to evaluate this factor and reflect all the relevant sides of this factor.

The reliability have been tested, the Cranach's alpha value demonstrate strong consistency for this variable. The result of Cranach's alpha was (0. 958).

The normality test have applied and the normality test show that the variable is very close to having normal distribution. The results show that The Kolmogorov-Smirnov and Shapiro-Wilk statistics, which have significance levels close to 0.05. the reliability of the instrument demonstrates outstanding was found as 0.98 by a Cranach's alpha , which reflect the strong level of consistency observed in standardized items and guarantees reliability and stability of the scale used.

According to the ANOVA analysis show the statistically significant variations across the items, these results based on an F-value of 31.863 and a P-value of 0.000. These results show the existence of nonadditivity. The stability of the observed variance validated by the Tukey's test.

### 6.1 The hypothesis test

Results: positive relationship between transformational leadership and time management.

**Table 1** Correlations of the hypothesis of time management.

		Transformational Leadership	Time Management
Transformational Leadership	Pearson Correlation	1	,945**
	Sig. (2-tailed)	--	,000
	N	260	260
Time Management	Pearson Correlation	,839**	1
	Sig. (2-tailed)	,000	--
	N	260	260

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

**Table 2** Model Summary of the hypothesis.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,945a	,894	,893	,33761

Predictors: (Constant), Transformational Leadership.

**Table 3** ANOVA of the hypothesis.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	246,970	1	246,970	2166,733	,000b
	Residual	29,408	258	,114	--	--
	Total	276,378	259	--	--	--

a. Dependent Variable: Cost Management

b. Predictors: (Constant), Transformational Leadership

**Table 3** Coefficients of the hypothesis.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,581	,068	--	8,525	,000
	Transformational Leadership	,913	,020	,945	46,548	,000

a. Dependent Variable: Cost Management

With an R-squared value of 0.704, the hypothesis proved that transformational leadership had a major impact time management effectiveness. It means that 70.4% of the variance in time management effectiveness can be explained by transformational leadership.

These results are in accordance with the existing literature, indicating that transformational leadership optimises time management when compared to previous studies. According to Elenkov's (2002) investigation, transformational leadership greatly affects organizational innovation and efficiency, particularly time management. Further, transformational leadership provided a positive effect on employee motivation and dedication, which enhanced time management and productivity, as shown by Bass and Avolio's (1993) study. As stated by Dvir, Eden, Avolio, and Shamir (2002), transformational leaders provide an environment that encourages the effective utilization of time and resources by exhibiting visionary and supportive behaviors. These results are in line with the previous studies that related to the time management and the transformational leadership. According to the results of this study, the unstandardized coefficient of the transformational leadership show that ( $B = 0.913$ ) which indicated a significant positive effect on cost management, which provide as a scale of the measuring of the time management. The standardized coefficient ( $Beta = 0.945$ ) and the extremely significant t-value (46.548,  $p < 0.001$ ) confirm the robustness and statistical significance of this association.

## 7 Conclusion and recommendations

Based on this research, transformational leadership has a major effect on raising project management effectiveness in the Libyan construction industry. The findings of this study, that transformational leadership involves promoting innovation, inspiring and motivating employees, and forwarding a common target. The results of the Libyan construction industry show that this leadership style has improved time management. In the construction industry, proactive time management is crucial as delays can result in costly price increases and unsuccessful projects. To achieve the highest possible standard of project management performance in Libya's construction sector, transformational leadership is required. The beneficial effects on time management, cost-effectiveness, quality assurance, and risk reduction underscore the value of this leadership style.

To reveal more specifics about this field of study, further research is required to investigate how transformational leadership influences project management, particularly how it benefits time management. Companies would recognize areas for improvement and swiftly implement the required changes if they regularly evaluated the effectiveness of transformational leadership using performance metrics and feedback surveys and compared the results to benchmarks in the industry.

## 8. References

- [1] Bass, B. M., & Avolio, B. J. (1993). Transformational leadership and organizational culture. *Public Administration Quarterly*, 17(1), 112-121.
- [2] FetriYeni, J. (2016). Kepemimpinan Pendidikan Transformatif. *Journal of Educational Leadership*, 2(3), 45-58.
- [3] Gharehbaghi, K., and McManus, K. (2003). The Construction Manager as a Leader. *Journal of Construction Engineering and Management*, 3(1), 56. doi: 10.1061/(ASCE)1532-6748(2003)3:1(56).
- [4] Latiffi, A. A., and Zulkiffli, N. A. (2021). The Improvement Factors of Leadership Skills among Project Managers in Pre-Construction Phase of Sustainable Construction Projects. *International Journal of Technology and Design Education*, 15(ns1), 114. doi: 10.11113/intrest.v15ns1.114.
- [5] Mohammed, S., and Alipour, K. (2014). It's Time for Temporal Leadership: Individual, Dyadic, Team, and Organizational Effects. *Industrial and Organizational Psychology*, 7(2), 178-181. doi: 10.1111/iops.12128.
- [6] Quiros, L. (2020). Transformational Leadership. In *The SAGE Encyclopedia of Leadership Studies*. SAGE Publications. doi: 10.4135/9781529714395.n591.
- [7] Shirey, M. R. (2016). Leadership Transitions and the First 90 Days. *Journal of Nursing Administration*, 46(4), 191-193. doi: 10.1097/NNA.0000000000000329.
- [8] Tabassi, A. A., Roufehaei, K. M., Ramli, M., Bakar, A., Ismail, R., and Pakir, A. K. (2016). Leadership competences of sustainable construction project managers. *Journal of Cleaner Production*, 124, 339-349. doi: 10.1016/j.jclepro.2016.02.076.
- Quiros, L. (2020). Transformational Leadership. In *The SAGE Encyclopedia of Leadership Studies*. SAGE Publications. doi: 10.4135/9781529714395.n5