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Effect of path-goal leadership styles on the commitment of employees on construction projects

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Effective leadership and employee commitment are two fundamental factors required for project success. A capable leader provides direction while a highly committed employee exerts more effort to pursue project goals. The purpose of this study is to evaluate the effect of path-goal leadership styles on the commitment of employees on construction projects. Primary data were collected through the administration of a questionnaire to construction managers of completed projects within the last five years (2008–2013) before the study was conducted, while data obtained were presented using tables and analysed using correlation and multiple regression analysis. The study revealed that a supportive leadership style influences the affective commitment of employees; and continuing commitment of employees is influenced by supportive and achievement-oriented leadership styles. None of the path-goal leadership styles influence the normative commitment of the employee. The study therefore recommends that leaders of construction projects should prioritize the leadership style that influences the commitment of the employee. Leaders should also create a friendly and psychologically supportive environment for employees as well as understanding their behaviour in order to enhance their commitment.

Keywords: construction; employee commitment; path-goal leadership styles; project success

Introduction

Construction projects are unique and often associated with distinct complexities, unknowns and uncertainties (Anantatmula 2010; Doloi et al. 2011). Mitigating the effect of these characteristics requires effective leadership. Effective leadership is essential for successful management of project objectives throughout the construction process (Slevin & Pinto, 1997; Odusami et al. 2003); and contributes positively to employees' commitment to project success (Wang & Poutziouris 2010). The leadership style dictates the strategic and visionary role, communication and information, authority and responsibility for achievement of the construction project objectives (Larsson & Vinberg 2010). On the other hand, the employee is an unquantifiable asset whose commitment level is determined by the effectiveness of the leader (Gregory 2010). Leadership styles that motivate and involve participation of employees will influence their commitment to project success (Gaertner 2000; Zeffane 2003).

Leadership-related issues have been the subject of academic research in several fields. For instance, previous research studies have established the relationship between different leadership styles and organizational performance (Hobman et al. 2011; Rafiee & Mohammadi 2012; Kacmar et al. 2013; Men 2014; Wang & Yen 2015). Also, researchers in the construction industry have stressed the importance of leadership styles and suggested characteristics, attributes and skills required for effectiveness on construction projects (Odusami 2002; Panthi et al. 2009; Muller & Turner 2010; Yang et al. 2011; Zerjav et al. 2014).

The success of construction projects is often measured using cost, time and quality (Atkinson 1999; Toor & Ogunlana 2010). However, human activities are crucial drivers for ensuring these success parameters are met. For instance, the disposition of the leader and the commitment of employees can affect the project's duration, cost and quality. Hence, the interaction between leadership styles adopted on individual construction projects will determine the commitment of employees to the success of the project. This study will therefore evaluate the impact of path-goal leadership styles on the commitment of employees in construction projects. In determining this impact, the study will assess the different types of path-goal leadership, employee commitment and the effect of path-goal leadership styles on the level of commitment of employees in the construction industry.

Employees' commitment

The dynamism of the construction industry and the increasing demand for high-quality service makes the commitment of an employee to an organization very important. There is no universal definition for commitment, but it has been expressed

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as a multidimensional concept involving attitudinal and behavioural components (Meyer & Allen 1991; Meyer et al. 1993). As an attitudinal function, commitment is expressed in three dimensions, which involves positive affection, identification and willingness to work on behalf of the organization (Jaussi 2007). The behavioural function as a concept results from the perception of the constraints on the worker's ability to leave, and the choices that binds him to the organization (Salancik 1977). Organizational commitment has been defined as a multidimensional concept involving the employee's loyalty to the organization, willingness to exert effort on behalf of the organization, maintaining a degree of goal and value congruency with the organization, and desire to maintain organizational membership (Porter et al. 1974; Bateman & Strasser 1984). The three major forms of employee commitment as identified by Allen and Meyer (1990) include affective commitment, continuance commitment and normative commitment.

Affective commitment refers to the emotional attachment, identification and involvement that an employee has with the organization and its goals (Mowday et al. 1979; O'Reilly & Chatman 1986; Meyer et al. 1993). Porter et al. (1974) further characterizes affective commitment by three factors: belief in and acceptance of the organization's goals and values; willingness to focus effort on helping the organization to achieve its goals; and the desire to maintain organizational membership. Meyer and Allen (1991) suggest that this type of commitment adds the greatest benefits to the organization, making it the most important. In fact, employees who have this type of commitment can do more than expected for the good of the organization (Robinson 2003).

Continuance commitment is the willingness to remain in an organization because of the non-transferable investments the employee has that are unique to the organization, such as retirement benefits, relationships with other employees, giving up seniority-based privileges (Reichers 1985). In this type of commitment, there is fair economic exchange from the relationship; which involves some enticement to enter and remain in the organization and barriers to leaving (Robinson 2003). The major consideration in this type of commitment is the perception of the high cost associated with losing organizational membership (Becker 1960; Allen & Meyer 1990).

Normative commitment refers to the feeling of obligation to an organization or workplace (Meyer & Allen 1991; Bolon 1997). Normative commitment can be explained by other commitments such as marriage, family, religion and so on; therefore, when it comes to a commitment to their place of employment employees often feel that they have a moral obligation to the organization (Wiener 1982).

Leadership and leadership styles

Leadership can be viewed as the ability to influence a group of followers towards the achievement of predetermined goals and objectives using effective methods of communication (Robbins 1993; Wu et al. 2006; Men 2014). The leader establishes direction for the working group of individuals and gains their commitment by motivating them to achieve intended project outcomes (Conger 1992). The successful management of these projects by leaders in construction organizations is dependent upon four basic management functions of planning, organizing, leading and controlling (Robbins & Coulter 2012). Therefore, the choice of a good leader will help in performing these functions, unequivocally resulting in construction project success (Nwachukwu 1996; Odusami et al. 2003). In fact, the choice of a qualified leader for construction projects could lead to as much as 10% savings in construction costs, which is one of the attributes of a successful project (Herbert 1981).

Leadership style entails the combination of traits, skills and behaviours used by a leader when interacting with employees (Lussier & Achua 2009). In literatures, various leadership styles exist, and allow the use of different communication channels to achieve project goals. However, no single leadership style is best for all managerial situations (Mullins 1999; Vecchio 2002). The autocratic leadership gives absolute power to the leader, with unidirectional communication channels and apathy regarding feedback and employee influence (Bosiok & Serbia 2013). On the other hand, the democratic leader will invite employees to contribute to the decision-making process, but makes the final decision (Bhatti et al. 2012). Bureaucratic leadership ensures that employees follow rules and procedures accurately and consistently, which allows a display of formal and businesslike attitudes in the workplace (Bass 1985). Also, Bass and Avolio (2005) describes transformational leadership as a process of influencing employees where leaders change their awareness of what is important, and move them to see themselves and the opportunities and challenges of their environment in a new way. In contrast, transactional leaders engage in behaviours associated with a constructive style of management (contingent reward) and a corrective style of management (management-by-exception).

Previous studies have suggested factors that influence the style exhibited by the leader. For instance, Tannenbaum and Schmidt (1958) maintained that the forces in the leader himself, the employees and the situation are responsible for the leadership style demonstrated during any specific task. Also, Maheshwari (1980) attributed the choice of decision making by the leadership to a complex interaction of several factors, including context and characteristics of the organization, nature of decision and the attributes or preferences of the decision maker (i.e. the leader). Other factors highlighted by

previous studies include type and characteristics of the task (Whyte 1988; Yukl 2012); closeness of supervision required (Herbert 1981); degree of difficulty of the task (Blanchard & Wakin 1991; Andi et al. 2004); and time available for task completion (Whyte, 1988).

However, recent studies have classified the choice of appropriate leadership style based on two contingency variables, which are environmental and the individual factors. The environmental factors revolve around the task structure, authority system and work group which are outside the control of the subordinate. The individual factors involve the personality, experience and abilities of the individual, which are inherently part of the subordinate (Robin 2009). The consideration of these factors will enhance the effectiveness of leadership in managing construction projects because construction managers have to play a multi-functional role. Hence, an effective leader must be able not only to determine the most appropriate leadership style but also correctly apply that style. Therefore, they should exhibit a degree of versatility and flexibility that enables them to adopt the appropriate style for the changing and contradictory demands made on them.

Path-goal leadership styles

The complex nature of projects requires the adoption of flexible leadership styles that will enhance the commitment of the employees in a stressful environment like the construction industry. Path-goal leadership is built on goal setting and expectancy theory (Robin 2009). It attempts to reconcile the anomalies existing between task and person orientation of the leader and the satisfaction and performance of the employee (House 1996). Hence, it has been considered as the most influential, sophisticated and comprehensive contingency theory (Robbins 2005; Hickman 2010). Unlike other forms of leadership approach, path-goal theory seeks to specify the leadership behaviour that fits the employee and work environment through enhancing employee commitment to productivity in the organization (Northouse 2013). The path-goal theory indicates four basic leadership styles, namely directive, participative, supportive and achievement-oriented leadership styles.

The *directive leadership style* is a behaviour directed towards the provision of a psychological structure for subordinates by letting them know what they are expected to do, scheduling and coordinating work, giving specific guidance and clarifying policies, rules and procedures (House 1996). This leadership style is most effective when employees are unsure of expected tasks (Robin 2009). The aim of this style of leadership is to guide and structure the action of group members through guiding and structuring, clarifying expectations, monitoring, motivating, planning, scheduling and assigning and definition of roles (Directive Leadership Behaviour 2006). This style of leadership facilitates mutual understanding about the task and responsibilities at an early stage of team forming (Lorinkova et al. 2013), and can be very helpful during the construction phase (Rowlinson et al. 1993). Similarly, informing employees about what needs to be done and helping them with how to get it done can constrain employees to remain in the organization (Mahdi et al. 2014).

The *participative leadership style* is a behaviour that encourages employee influence in the decision-making process – i.e. consulting with, and taking opinions and suggestions of employees into account when making decisions (House 1996; Somech 2005). This leadership style integrates the input of employees into group or organizational decisions even though it is within the manager's powers to give or deny control to his or her subordinates (IAAP 2009). However, this style of leadership is effective when subordinates are highly trained and involved in their work (House & Mitchell 1974). To create affective commitment for specific tasks, the participative behaviour of the leader is essential (Raffiee & Mohammed 2012; Miao et al. 2014). In fact, it is adjudged the most favoured form of leadership behaviour suitable for administrative tasks (Wang & Poutzioris 2010). The involvement and participation in the decision-making process induced commitment of Thai employees (Yukongdi 2010). Contrariwise, employee commitment was not influenced by the participative leadership behaviour of the leader in China, Singapore and South Korea (Hwang et al. 2015).

The *supportive leadership style* is a behaviour directed towards the satisfaction of subordinates' needs and preferences by displaying concern for their welfare and creating a friendly and psychologically supportive work environment (House 1996). This leadership style is most suitable when tasks and relationships are physically and psychologically challenging, boring, stressful and dangerous; serving as a means of stress reduction and alleviation of frustration for subordinates (House & Mitchell 1974; Robin 2009). Rowlinson et al. (1993) opined that a supportive leadership style is beneficial at the feasibility and pre-contract stages of the construction process. In a recent study, the use of a supportive leadership style influenced employees' commitment in the US, but did not significantly affect Singaporean employees (Hwang et al. 2015). In fact, leaders exhibiting sympathy and consideration for employees' needs will keep them emotionally attached, and motivate them to spend the rest of their career with the organization (Kim & Hancer 2011).

The *achievement-oriented leadership style* is directed towards encouraging performance excellence through setting challenging goals, seeking improvement, emphasizing excellence in performance and showing confidence that subordinates will attain high standards of performance (House 1996). This leadership style is effective when work is complex and the environment is uncertain because it increases subordinates' self-confidence and ability to attain goals (Robin 2009).

This is best applied in professional work environments such as technical, scientific and during sales of a product/service (House & Mitchell 1974).

Research method

In order to investigate and establish the relationship between the path-goal leadership style and employee commitment, a questionnaire survey was conducted to construction managers in the construction industry. The survey consisted of three main sections: (1) background information of respondents; (2) level of agreement with path-goal leadership styles; and (3) level of agreement with employee commitment. Based on an extensive literature search, four path-goal leadership styles (directive, supportive, participative and achievement-oriented styles) were established, while three types of employee commitment (affective, continuance and normative commitment) were identified in the study. Numerical scores ranging from 1 (strongly disagree) to 5 (strongly agree) were used to enable respondents to express their level of agreement with the 20 measurable path-goal leadership styles and eight measurable employee commitment items. The score for the level of agreement with each leadership style and commitment type was calculated by summing up the ratings of relevant items.

Due to the inability to get updated records of construction managers from relevant professional bodies, public construction projects completed in the last five years (2008–2013) were identified from the relevant ministry in Lagos state (i.e. Ministry of Works). The construction managers in charge of the projects were included in the survey. Lagos state was chosen because it is considered as the commercial hub, with more construction activities than many other states in Nigeria (Oke et al. 2010; Aje & Famakin 2012). Using the 87 projects identified, survey questions were sent to the construction managers who managed other employees for the success of the construction project. In total, 68 questionnaires were returned, representing a response rate of 78.2%. However, due to missing values in the responses, only 59 were used for data analysis, representing a valid response rate of 67.8%. Among the respondents, 10.2%, 39.0%, 47.5% and 3.4% had experience in the construction industry, with 1–5, 6–10, 11–15 and more than 15 years respectively. Three-quarters (i.e. 75%) of the respondents managed between six and 49 employees, 15% managed over 50 employees, while 10% managed fewer than five employees.

The data collected were analysed using the statistical package for social sciences (SPSS) version 20.0. Firstly, Cronbach alpha values were calculated to ensure the internal consistency of the path-goal leadership styles and the employee commitment types. Secondly, the correlation between the different path-goal leadership styles and forms of commitment were analysed. Finally, multiple regression analysis was conducted between the path-goal leadership styles and the forms of commitment.

Results

Reliability analysis of path-goal leadership styles and employee commitment

To test the internal consistency, reliability analysis was conducted on each path-goal leadership style (see Table 1). Four leadership styles were identified, namely directive style (P1), supportive style (P2), participative style (P3), and achievement-oriented style (P4). One item each was deleted from P1, P3 and P4 due to low reliability. After excluding the deleted items, the alpha values increased. Hence, all the path-goal leadership styles were reliable with Cronbach alpha values greater than 0.5 (Hair et al. 2010).

Similarly, employee commitment was tested for reliability (see Table 2). Three commitment levels were identified, namely affective commitment (AC), continuance commitment (CC) and normative commitment (CC). All the three types of employee commitment were considered reliable with Cronbach alpha values greater than 0.5 (Hair et al. 2010).

Correlation between path-goal leadership styles and employee commitment

Correlation analysis was conducted to investigate the relationship or association between path-goal leadership styles and the forms of commitment. The correlation coefficients are measured by the guidelines proposed by Cohen (1988), which indicates that the correlation coefficient < 0.3 shows a weak association between the variables, while coefficients between 0.3 and 0.5, and > 0.5 reveal a fair or strong association respectively. The result of the correlation as shown in Table 3 reveals that affective commitment is significantly and strongly related to the supportive leadership style ($r = 0.641$, $p < 0.01$) and fairly related to the directive leadership style ($r = 0.386$, $p < 0.01$). On the other hand, continuance commitment is significant but negatively related to the supportive leadership style ($r = -0.428$, $p < 0.01$) and significant but fairly related to the achievement-oriented style of leadership. Furthermore, the normative commitment of an employee is neither

Table 1. Scale items and reliability analysis of path-goal leadership styles.

Path-goal leadership	Items	Descriptions	α -value
P1-Directive style	1.	I inform subordinates about what needs to be done and how it needs to be done	0.587
	2.	I explain the level of performance that is expected of subordinates.	
	3.	I ask subordinates to follow standard rules and regulations.	
	4.	I let subordinates know what is expected of them	
	5.	I give vague explanations of what is expected of subordinates on the job.	
P2-Supportive style	6.	I maintain a friendly working relationship with subordinates.	0.602
	7.	I do little things to make it pleasant to be a member of the group.	
	8.	I behave in a manner that is thoughtful of subordinates' personal needs.	
	9.	I help subordinates overcome problems that stop them from carrying out their tasks	
	10.	I say things that hurt subordinates' personal feelings.	
P3- Participative style	11.	I ask subordinates for suggestions on what assignments should be made.	0.652
	12.	I consult with subordinates when facing a problem.	
	13.	I listen receptively to subordinates' ideas and suggestions	
	14.	I ask for suggestions from subordinates concerning how to carry out assignments	
	15.	I act without consulting my subordinates.	
P4-Achievement-oriented style	16.	I consistently set challenging goals for subordinates to attain.	0.502
	17.	I encourage continual improvement in subordinates' performance.	
	18.	I let subordinates know that I expect them to perform at their highest level	
	19.	I set goals for subordinates' performance that are quite challenging.	
	20.	I show that I have doubts about their ability to meet most objectives.	

Note: The scores of items 5, 10, 15 and 20 were reversed based on the scoring pattern provided in the questionnaire

Table 2. Scale items and reliability analysis of employee commitment types.

Employee Commitment	Items	Descriptions	α -value
E1-Affective commitment	1.	They are very happy to spend the rest of their career in the organizations	0.760
	2.	They accept the organization's problem as their own	
	3.	They feel emotionally attached to the organization	
E2-Continuance commitment	4.	They are constrained to remain because of the uncertainties of leaving the organization	0.679
	5.	They feel there are serious consequences and great sacrifice for leaving the organization	
	6.	They believe there are only few options to consider leaving the organization	
E3-Normative commitment	7.	They feel a sense of moral obligation to remain loyal to the organization	0.519
	8.	They think it is better to stay with one organization than moving too often	

Table 3. Correlation between path-goal leadership styles and forms of commitment.

	P1	P2	P3	P4	E1	E2	E3
Directive style (P1)	–						
Supportive style (P2)	0.493**	–					
Participative style (P3)	–0.218	0.013	–				
Achievement-oriented style (P4)	0.450**	–0.002	0.129	–			
Affective commitment (E1)	0.386**	0.641**	–0.054	0.167	–		
Continuance commitment (E2)	–0.020	–0.428**	0.185	0.323*	–0.572**	–	
Normative commitment (E3)	–0.028	–0.239	–0.083	–0.135	–0.497**	0.382**	–

* Correlation is significant at the $p < 0.05$ level.

** Correlation is significant at the $p < 0.01$ level.

Table 4. Multiple regression analysis model for path-goal leadership styles and forms of commitment.

Model		B	Std. Error	T	Sig.	R	R ²	R ² change
1	Affective commitment	←	Path-goal leadership style					
	Constant	1.394	0.442	3.153	0.003	0.641	0.411	
	Supportive style	0.107	0.017	6.301	0.000			–
2	Continuance commitment	←	Path-goal leadership style					
	Constant	2.830	0.902	3.138	0.003	0.535	0.287	
	Supportive style	–0.070	0.019	–3.785	0.000			–
	Achievement-oriented style	0.085	0.030	2.852	0.006			0.104

significant nor has a strong relationship with any of the path-goal leadership styles, indicating that there is no association between normative commitment and path-goal leadership style.

Multiple regression between path-goal leadership styles and employee commitment

Multiple regression analysis was conducted to examine the predictive ability of identified path-goal leadership styles on the forms of commitment using the stepwise method. The different path-goal leadership styles were selected as independent variables in the multiple regression analysis to investigate the forms of commitment (see Table 4). Model 1 showed that affective commitment is positively influenced by the supportive style of leadership, explaining 41.1% of the variance. Continuance commitment in Model 2 was found to be negatively associated with the supportive style and positively associated with the achievement-oriented style, explaining only a total of 28.7% of the variance. No model was formed for normative commitment because it is neither influenced nor explained by any of the leadership styles.

Discussion

Based on the analysis in Table 3, affective commitment will be influenced by the supportive leadership style while continuance commitment will be influenced by the supportive leadership style and the achievement-oriented style. None of the leadership styles will influence normative commitment.

The result of the study shows that the supportive style of leadership will influence the affective commitment of employees, indicating that employees will develop an emotional attachment and identification in a friendly and psychologically supportive work environment (Mottaz 1988; Lok & Crawford 1999; Wallace et al. 2013). In the Nigerian construction industry employees are poorly remunerated which affects their commitment to project success (Ng et al. 2005). The workers therefore prefer to work with leaders who are considerate and show more concern for their welfare needs (Kim & Hancer 2011). In fact, periodically providing financial incentives can serve as a means of motivating employees to commit themselves to the success of construction projects (Aiyetan & Olotuah 2006). Hence, the ability of the leader to create a friendly and supportive environment for employees promotes a sense of commitment to the organization. Furthermore, since construction projects are mainly operated by team work, a leader must create an enabling platform for friendly interaction between the employees to foster commitment (Limpanitgul et al. 2014).

The findings also show that the continuing commitment of an employee is negatively related to the supportive leadership style of the leader. This implies that supportive behaviour of the leader may not contribute to the desire of an employee to continue in an organization. This is in contrast to the findings of Boichuk and Menguc (2013), where a positive relationship exists. Perhaps the difference in type of organization, location of the study and cultural differences could be responsible for the contrasting results (Hwang et al. 2015; Limpanitgul et al. 2014). In a developing construction industry like Nigeria, an employee who continues in an organization because of the benefits he/she can receive from the organization will endure the environment no matter how unsupportive the leader might be. For instance, if participating in a construction project will offer employees residential accommodation, a company car with free fuel allocation, a pension scheme or any opportunity that promotes self-esteem, the commitment of employees will be very high no matter the behaviour exhibited by the leader (Ameh & Shokumbi 2013).

On the other hand, the continuing commitment of an employee is positively influenced by an achievement-oriented leadership style in the leader. This suggests that an employee continues in an organization when he works with an achievement-oriented leader. Employees will always want to continue to work with a leader whose performance attributes coincide with their personal goals. Furthermore, none of the leadership styles influence the normative commitment of

Table 5. Employee commitment based on path-goal leadership styles in the regression model.

Independent variable	Dependent Variables in the Multiple Regression Models		
	E1 Affective Commitment	E2 Continuance Commitment	E3 Normative Commitment
P1 Directive leadership			
P2 Supportive leadership	✓	✓	
P3 Participative leadership			
P4 Achievement-oriented leadership		✓	

Note: ✓-positive linear significant relationship shown in Table 5; and
 ✗ -negative linear significant relationship shown in Table 5.

employees, implying that employees who feel an obligation to remain in the organization are never influenced no matter the type of leadership style exhibited.

Recommendations

Using previously validated scales of measurement, the four types of path-goal leadership styles and the three major forms of commitment were used in the study. The result shows that two of the path-goal leadership styles will significantly influence two of the three forms of employee commitment. The study also shows that none of the leadership styles will influence employees with a normative commitment in a construction organization. Therefore, the supportive and achievement-oriented leadership styles should be given priority by construction leaders so as to enhance the commitment of employees during the execution of construction projects.

The result of the study confirms that the supportive leadership style will influence the affective commitment of an employee. The stressful environment of the construction industry can reduce the commitment of the employee. To reduce the effect of that stressful environment, leaders of construction projects can create a friendly and psychologically supportive environment for the employees that will make the working environment more appealing to them. For instance, leaders of construction projects can organize informal social gatherings outside office hours, such as sports and outdoor activities and get-togethers during festive periods, as well as creating time during office hours for coffee breaks and physical exercise to allow employees to release stress and enjoy the working environment (Leung et al. 2008). In addition, leaders can also learn more about their employees and understand how their leadership behaviour can promote commitment and improve effectiveness (Malik 2013). This will help to create a more supportive environment that will induce more commitment in them. Furthermore, leaders can develop ways to align the organizational goals and objectives with the vision of individuals so that they can see themselves as members of the organization see the fulfilment of their life goals as they work with the organization. It is also paramount for construction professionals to undergo training and participate in leadership development schemes. This can be a part of the mandatory professional development programme run by the various professional institutions. Construction employees also need to be equipped and trained in their various endeavours to contribute to the progress of their organization and to foster employee commitment.

Further research

Based on the subjective method used to assess the commitment of employees in the construction industry in Lagos, Nigeria, some limitations have been observed. The use of a relatively small sample for the survey compared with the number of construction managers on different projects who have assumed a leadership role in the construction industry may introduce some bias. However, several factors were put in place to reduce this limitation. Firstly, the scales used for measurement were selected from past literature and validated with acceptable alpha coefficients greater than 0.5. Secondly, construction managers have successfully managed employees on a construction project within the last five years. With these considerations, it is believed that the sources of bias in the study have been addressed. Construction activities are diverse in magnitude and with different numbers of employees to manage, and the style of leadership may also differ. Therefore further studies should compare leadership styles influencing the commitment of employees in various construction types, such as building construction, civil engineering construction of different sizes, cultural backgrounds and organizational structures to identify the best leadership styles for employee commitment. In addition, an objective approach can

also be used for the study to complement the findings from a subjective point of view. Furthermore, the moderating effect of job satisfaction and motivation on the commitment of employees can also be considered in future studies.


Conclusion

The construction industry is faced with many complexities and uncertainties which make the need for effective leadership inescapable. Effective leadership will help to promote the support of employees for the organization through different behavioural approaches. The study aimed at evaluating the different path-goal leadership styles that will influence the commitment of the employee to an organization. This was established quantitatively using correlation analysis and multiple regression analysis. The study showed that only two of the four path-goal leadership styles, namely supportive and achievement-oriented leadership styles, influence the affective and continuing commitment of employees while none of the leadership styles influence the normative commitment of the employees. Based on these results, various recommendations were presented to influence the commitment of employees in the construction industry; these include creating a friendly and psychologically supportive environment for the employees, seeking ways to align the organizational goals and objectives with the vision of individuals so that they can see themselves as members of the organization and particularly perceive fulfilment of their life goals as they work with the organization. As the leadership styles that influence the commitment of employees on various complex projects may differ, further investigation can be done to ascertain which leadership styles will influence employee commitment in various types of construction, such as building construction or civil engineering construction, of different sizes and employee structures, so as to compare the results. The comparison will help to develop a more comprehensive and dynamic leadership style that will improve the commitment of different types of employees in the construction industry.

Disclosure statement

No potential conflict of interest was reported by the authors.

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References

- Aiyetan AO, Olutuah AO. 2006. Impact of motivation on workers' productivity in the Nigerian construction industry. In Boyd D, editor. *Proceedings of the 22nd Annual ARCOM Conference*; 2006 Sep 4–6; Birmingham, UK.
- Aje IO, Famakin IO. 2012. The impact of contractors' technical capability on cost and time performance of building projects in Nigeria. Paper presented at the Royal Institute of Chartered Surveyors COBRA Conference; 2012 Sep 10–13; Las Vegas, Nevada, USA.
- Allen NJ, Meyer JP. 1990. The measurement and antecedents of affective, continuance and normative commitment to the organization. *J Occup Psych*. 63:1–18.
- Ameh OJ, Shokumbi BB. 2013. Effectiveness of non-financial motivational scheme on construction workers output in Nigeria. *Ethiopian J Environ Stud Manag*. 6:263–272.
- Anantatmula VS. 2010. Project manager leadership role in improving project performance. *Eng Manag J*. 22:13–20.
- Andi A, Santoso WK, Tali RC. 2004. Basic, actual and effectiveness of leadership styles of construction project managers in Surabaya. *Civ Eng Dimension J Civ Eng Sci Applic*. 6:32–39.
- Atkinson R. 1999. Project management: cost, time and quality, two best guesses and a phenomenon, it's time to accept other success criteria. *Int J Proj Manag*. 17:337–342.
- Bass BM. 1985. *Leadership and performance beyond expectations*. New York: Free Press.
- Bass B, Avolio B. 2005. Multifactor leadership questionnaire feedback [Internet]. [cited 2015 Jul 4]. Available from: <http://www.mindgarden.com>
- Bateman T, Strasser S. 1984. A longitudinal analysis of the antecedents of organizational commitment. *Acad Manag J*. 21:95–112.
- Becker HS. 1960. Notes on the concept of commitment. *Am J Sociol*. 66:32–40.
- Bhatti N, Maitlo GM, Shaikh N, Hashmi MA, Shaikh FM. 2012. The impact of autocratic and democratic leadership style on job satisfaction. *Int Bus Res*. 5:192–201.
- Blanchard K, Wakin E. 1991. Managing: different styles for different people: give employees feedback, not criticism. *Today's Office*. 26:20–23.
- Boichuk JP, Menguc B. 2013. Engaging dissatisfied retail employees to voice promotive ideas: the role of continuance commitment. *J Retailing*. 89:207–218.
- Bolon DS. 1997. Organizational citizenship behavior among hospital employees: a multidimensional analysis involving job satisfaction and organizational commitment. *Hospital Health Serv Adm*. 42:221–241.
- Bosiok D, Serbia NS. 2013. Leadership styles and creativity. *Online J App Knowl Manag*. 1:64–77.

- Cohen J. 1988. Statistical power analysis for the behavioural sciences. Hillsdale (NJ): Lawrence Erlbaum.
- Conger JA. 1992. Reflections on leadership and spirit. Paper presented at the Conference on Leadership and Spirit, Boston.
- Directive Leadership Behaviour. 2006. Prentice Hall [Internet]; [cited 2014 Dec 20]. Available from: <http://www.drluisortiz.com/PPT/CHAP05PP.PPT>
- Doloi H, Iyer KC, Sawhney A. 2011. Structural equation model for assessing impacts of contractors' performance on project success. *Int J Proj Manag.* 29:687–695.
- Gaertner S. 2000. Structural determinants of job satisfaction and organizational commitment in turnover models. *Hum Res Manag Rev.* 9:479–493.
- Gregory A. 2010. Planning and managing public relations campaigns: a strategic approach. 3rd ed. Sonipat, India: Replika Press.
- Hair JF, Black WC, Babin BJ, Anderson RE. 2010. Multivariate data analysis. 7th ed. New Jersey: Prentice Hall.
- Herbert T. 1981. Dimensions of organizational behaviour. 2nd ed. New York: Macmillan.
- Hickman GR. 2010. Leading organizations: perspectives for a new era. 2nd ed. Thousand Oaks (CA): Sage Publications Inc.
- Hobman EV, Jackson CJ, Jimmieson NL, Martin R. 2011. The effects of transformational leadership behaviours on follower outcomes: an identity-based analysis. *Europ J Work Org Psych.* 20:553–580.
- House RJ. 1996. Path-goal theory of leadership: lessons, legacy and a reformulated theory. *Leadership Q.* 7:323–352.
- House RJ, Mitchell TR. 1974. Path-goal theory of leadership. *J Contemp Bus.* 3:1–97.
- Hwang SJ, Quast LN, Center BA, Chung CTN, Hahn HJ, Wolkittel J. 2015. The impact of leadership behaviours on leaders' perceived job performance across cultures: comparing the role of charismatic, directive, participative, and supportive leadership behaviours in the U.S. and four Confucian Asian Countries. *Hum Res Develop Int.* 1–19 [online publication].
- International Association of Administrative Professionals (IAAP). 2009. Leadership theories and styles [Internet]; [cited 2014 Dec 20]. Available from: https://www.etsu.edu/ahsc/documents/Leadership_Theories.pdf
- Jaussi KS. 2007. Attitudinal commitment: a three-dimensional construct. *J Occup Org Psych.* 80:1–61.
- Kacmar KM, Carton DS, Harris KJ. 2013. Interactive effect of leaders' influence tactics and ethical leadership on work effort and helping behavior. *J Soc Psych.* 153:577–597.
- Kim YJ, Hancer M. 2011. Leadership style and national culture on restaurant employees' affective commitment [Internet]; [cited 2015 Nov 6]. Available from: http://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1135&context=gradconf_hospitality
- Larsson J, Vinberg S. 2010. Leadership behaviour in successful organizations: universal or situation-dependent? *TQM Bus Excellence.* 21:317–334.
- Leung MY, Chan YS, Chong A, Shum JFC. 2008. Developing structural integrated stressor–stress models for clients' and contractors' cost engineers. *J Constr Eng Manag.* 134:635–643.
- Limpanitgul T, Boonchoo P, Photiyarach S. 2014. Co-worker support and organizational commitment: a comparative study of Thai employees working in Thai and American airlines. *J Hosp Tourism Manag.* 21:100–107.
- Lok P, Crawford J. 1999. The relationship between commitment and organizational culture, subculture, leadership style and job satisfaction in organizational change and development. *Leadership Org Devel J.* 20:365–373.
- Lorinkova NM, Matthew JP, Sims HP. 2013. Examining the differential longitudinal performance of directive versus empowering leadership in teams. *Acad Manag J.* 56:573–596.
- Lussier R, Achua C. 2009. Leadership: theory, application and skill development. Mason (OH): South-Western Publications.
- Mahdi OR, Mohd ES, Almsafir MK. 2014. Empirical study on the impact of leadership behavior on organizational commitment in plantation companies in Malaysia. *Soc Behavioral Sci.* 109:1076–1087.
- Maheshwari BL. 1980. Decision styles and organisational effectiveness. New Delhi: Vikas Publishing.
- Malik SH. 2013. Relationship between leader behaviors and employees' job satisfaction: a path-goal approach. *Pakistan J Commerce Soc Sci.* 7:209–222.
- Men LR. 2014. Why leadership matters to internal communication: linking transformational leadership, symmetrical communication, and employee outcomes. *J Pub Rel Res.* 26:256–279.
- Meyer JP, Allen NJ. 1991. A three-component conceptualization of organizational commitment. *Hum Res Manag Rev.* 1:61–89.
- Meyer JP, Allen NJ, Smith CA. 1993. Commitment to organizations and occupations: extension and test of a three-component conceptualization. *J Appl Psych.* 78:538–551.
- Miao Q, Newman A, Huang X. 2014. The impact of participative leadership on job performance and organizational citizenship behaviour: distinguishing between the mediating effects of affective and cognitive trust. *Int J Hum Res Manag.* 25:2796–2810.
- Mottaz CJ. 1988. Determinants of organizational commitments. *Hum Rel.* 41:467–482.
- Mowday R, Steers R, Porter L. 1979. The measurement of organizational commitment. *J Vocat Behav.* 14:224–247.
- Muller R, Turner R. 2010. Leadership competency profiles of successful project managers. *Int J Proj Manag.* 28:437–448.
- Mullins L. 1999. Management and organizational behaviour. 6th ed. London: Pitman.
- Ng ST, Skitmore RM, Leung TK. 2005. Manageability of stress among construction project participants. *Eng Constr Arch Manag.* 12:264–282.
- Northouse PG. 2013. Leadership: theory and practice. 6th ed. London: Sage Publications.
- Nwachukwu GOC. 1996. Management leadership: the key to effective project management (EPM) functions in the Nigerian construction industry. *Quant Surv.* 23:18–24.
- Odusami KT. 2002. Perceptions of construction professionals concerning important skills of effective project leaders. *J Manag Eng.* 18(2):61–67.
- Odusami KT, Iyagba RRO, Omirin MM. 2003. The relationship between project leadership, team composition and construction project performance in Nigeria. *Int J Proj Manag.* 21:519–527.
- Oke AE, Ibironke OT, Aje IO. 2010. Perception of construction professionals to the performance of Nigerian quantity surveyors. *J Build Perf.* 1:64–72.

- O'Reilly CA, Chatman J. 1986. Organizational commitment and psychological attachment: the effects of compliance, identification and internalization on prosocial behavior. *J Appl Psych.* 71:492–499.
- Panthi K, Farooqui RU, Ahmed SM. 2009. An investigation of the leadership style of construction managers in South Florida. Proceedings of the 45th ASC Annual Conference; 2009 April 1–5; Gainesville: University of Florida.
- Porter LW, Steers RM, Mowday RT, Boulian PV. 1974. Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *J Appl Psych.* 59:603–609.
- Rafiee SM, Mohammadi M. 2012. Leadership styles and its relationship with subordinates' self-esteem. *Manag Sci Letter.* 2:2457–2462.
- Reichers A. 1985. A review and reconceptualization of organizational commitment. *Acad Manag Rev.* 10:465–476.
- Robbins SP. 1993. Organizational behavior. Upper Saddle River (NJ): Prentice-Hall.
- Robbins SP. 2005. Organizational behavior. 8th ed. Upper Saddle River (NJ): Prentice-Hall.
- Robbins SP, Coulter M. 2012. Management. 11th ed. Upper Saddle River (NJ): Prentice-Hall.
- Robin M. 2009. Path-goal theory of leadership [Internet]; [cited 2014 Dec 20]. Available from: <http://www.uk.sagepub.com/northouse6e/study/materials/reference/reference7.2.pdf>
- Robinson D. 2003. Defining and creating employee commitment: a review of current research. HR Network Paper MP21, Institute for Employment Studies.
- Rowlinson S, Ho TKK, Po-Hung Y. 1993. Leadership style of construction managers in Hong Kong. *Constr Manag Econ.* 11:455–465.
- Salancik G. 1977. Commitment and the control of organizational behaviour and belief. Chicago (IL): St. Clare Press.
- Slevin DP, Pinto JK. 1997. Leadership, motivation, and the project manager. In Cleland DI, King WR, editors. *Project management handbook*. 2nd ed. Hoboken (NJ): John Wiley.
- Somech A. 2005. Directive versus participative leadership: two complementary approaches to managing school effectiveness. *Educ Admin Q.* 41:777–800.
- Tannenbaum AS, Schmitt WH. 1958. How to choose a leadership pattern. *Harvard Bus Rev.* 36:95–101.
- Toor SR, Ogunlana SO. 2010. Beyond the 'iron triangle': stakeholder perception of key performance indicators (KPIs) for large-scale public sector development projects. *Int J Proj Manag.* 28:228–236.
- Vecchio RP. 2002. Preferences for idealised styles of supervision. *Leadership Q.* 13:643–671.
- Wallace E, Chernatony L, Buil I. 2013. Building bank brands: how leadership behavior influences employee commitment. *J Bus Res.* 66:165–171.
- Wang CH, Yen CD. 2015. Leadership and turnover intentions of Taiwan TV reporters: the moderating role of safety climate. *Asian J Commun.* 25:255–270.
- Wang Y, Poutziouris P. 2010. Leadership styles, management systems and growth: empirical evidence from UK owner-managed SMEs. *J Enterp Culture.* 18:331–354.
- Weiner Y. 1982. Commitment in organization: a normative view. *Acad Manag Rev.* 7:418–428.
- Whyte I. 1988. Factors influencing the choice of leadership style. *Banking World.* 6:57–58.
- Wu TF, Tsai MH, Fey YH, Wu RTY. 2006. A study of the relationship between manager's leadership style and organizational commitment in Taiwan's international tourists hotels. *Asian J Manag Humanity Sci.* 1:434–452.
- Yang L.R, Huang CF, Wu KS. 2011. The association among project manager's leadership style, teamwork and project success. *Int J Proj Manag.* 29:258–267.
- Yukl GA. 2012. Leadership in organizations. 8th ed. Englewood Cliffs (NJ): Prentice-Hall.
- Yukongdi V. 2010. A study of Thai employees' preferred leadership style. *Asia Pacific Bus Rev.* 16:161–181.
- Zeffane R. 2003. Patterns of organizational commitment and perceived management style: a comparison of public and private sector employees. *Hum Rel.* 47:977–1010.
- Zerjav V, Hartmann T, Van Amstel FMC. 2014. A leadership-as- practice perspective on design in architecture, engineering and construction projects: interaction analysis of a collaborative workshop. *Eng Proj Org J.* 4:209–221.