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SHORT COMMUNICATION

Effective Leadership in the Construction Industry

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Abstract. Despite the fact that throughout the last three decades new approaches to the Leadership issue have been introduced and examined in different industries, relatively few researchers have applied it to the construction industry. For example, Woodward (1980) has deliberately ignored construction in her influential study of industrial organizations.

As a result, advice to and training programs for construction practitioners are currently based on findings derived from circumstances found in settings other than construction. The objective of this article, which is based on empirical research conducted in a construction setting, is to help those who are responsible for recruitment and training of construction staff to select 'horses for courses'.

An important conclusion of this article is that it raises the question of "how applicable are models and approaches developed in settings other than construction when applied to the construction industry?". It emphasizes the need for construction organizations to strengthen the position power and authority of site foremen, based on the findings of a study of Egyptian construction foremen where position power has emerged as the most dominant leadership situational control factor.

Introduction

A problem faced by those who undertake the training of managers and supervisors for the construction industry is: how applicable are the precepts about good practice, to be found in text books and manuals, which are derived from experience and research in other industries.

The topic of leadership, for example, has been of major interest to researchers. Their findings have increasingly pointed out the need to recognize the fact that there

is no one best leadership style suited to all circumstances. While a number of approaches have been developed to provide practical advice on how to select 'horses and courses', there still remains doubt as to how far even such 'contingency approaches' can be applied to the very special circumstances of the construction industry. Bresnen has noted that "The nature of the construction activity is often perceived as diferent from technological and organizational characteristics of work undertaken in other, more stable settings" [1].

Contrary to the above statement, Fiedler [2, p. 26] has claimed that the contingency model is valid regardless of culture or industry context.

Fiedler [3] has reported the findings of different studies which have successfully applied the contingency model and the Least Preferred Co-worker measure (LPC). These studies were conducted within Western (USA, Canada, UK, etc.), as well as Eastern (Iran) cultures. They have also covered a relatively wide range of occupations in industries other than construction. This tends to support the former part of Fiedler's claim regarding the cross-culture validity of the model.

In a recent study of the leadership style of Egyptian construction foremen, using the contingency theory, Abdelhaleem M.T. has thoroughly examined and strongly questioned Fiedler's claim. The study has reported a high LPC scores among construction foremen. Analysis of the political, social and economic cultural factors in Egypt have supported this conclusion. It was stated that "To explain the impact of the position power as a cultural phenomenon (Eastern Islamic culture), it would require the Egyptian context to be revealed as fostering a task-orientation leadership style. In fact, the very opposite was found" [4, p. 143]. The study pointed out that in regards to the construction industry, Fiedler's claim emerges as suspect.

The present article is based on the former study of Egyptian construction foremen. It suggests that although it is certainly a matter of horses for courses, the method for selecting leaders would not follow the same guidelines as those offered by Fiedler when it comes to the construction industry, having accepted the validity of the model in Eastern cultures for other industry groups.

Fiedler's Advice on Leadership Effectiveness

The guidelines for leaders to increase their chance of being effective are set out in Fiedler's training manual 'Improving Leadership Effectiveness: The leader Match. In common with several other approaches to the leadership of task groups,

Fiedler identifies two kinds of leader's; A) those who tend to accomplish the task by developing good inter-personal relations with the group and B) those who have as their prime concern carrying out the task itself.

Fiedler has produced an ingenious method for identifying these two types. This method is based on a psychologically based bi-polar measure which is called the Least Preferred Co-Worker (henceforth referred to as LPC). The leader is supposed to think of a person who he does not necessarily dislike but he can not get along with easily. He is then asked to rate this person on the LPC bipolar scale where two sets of favourable/unfavourable descriptions, with descending rates, exist. High rating identifies a 'people-oriented' leadership style and low rating identifies a 'task-oriented' leadership style. The logic is that a favourable rating of someone with whom you do not get on with very well implies a more tolerant, people-oriented type. An unfavourable rating of the person you get on with least well implies a less tolerant, more task-oriented type. Fiedler argues that either one of these two types could be an effective leader, depending on the situation.

Situations may be characterized on the basis of three variables:

1. How much is the leader accepted and trusted by the members of the work group (Leader-Member Relations).
2. How clearly defined and structured is the task which the group has to perform (Task Structure).
3. How much power and authority is the leader perceived to have (Position Power).

These three variables are referred to as Leader-Member Relations, Task Structure and Position Power (henceforth referred to as LMR, TS and PP consequently). A composition of these three variables is what Fiedler called 'Leader Situational Control' (LSC). LSC is defined as "the degree to which the leadership situation enables the leader to control and influence his group's behavior" [5].

According to Fiedler, people-oriented leader is most effective when the situational factors combine to produce a situation that is moderately favourable to the leader. In other words, when the leader has moderate control over the situation. On the other hand, if the three situational factors create a situation which is highly favourable or highly unfavourable to the leader, task-oriented leaders are expected to be more effective.

It follows that a leader who is disposed to adopt a particular leadership style should be matched with a situation in which that style would be more effective or, alternatively he/she should work to bring the situation in line with his style. Fiedler argues that it is easier and more practical to adopt the former approach to the leader/job match concept.

Situational Control and Effectiveness in Construction

While this advice is all perfectly plausible, it is derived from an assumption which Fiedler has frequently stated as a matter of common sense; that the three situaitonal factors are not equally important. In Fiedler's model, Leader-Member Relations (LMR) is twice as important as Task Structure (TS) and four times Position Power (PP). This relative importance between the three variables has been expressed by Nebeker, 1975, as follows:

$$LSC = (4)\,LMR + (2)\,TS + (1)\,PP$$

where LSC is the Leader Situational Control

Fiedler has established a consistent pattern which describes the relationship between the situational control and the leadership effectiveness (Fig. 1). Nine possible leadership situations (octants) are horizontally arrayed and set against the correlation coefficient (Rho) between the leader's LPC and his effectiveness per situation. Negative correlations which appear toward the outermost of the curve (below the zero line) indicate a task-oriented leadership style. Positive correlations which appear toward the middle of the curve (above the zero line) indicate a people-oriented leadership style. It is crucial to notice that this pattern depends on the weights which Fiedler has used to determine the relative importance of the three situational factors.

The resutls of Abdelhaleem's study of leadership effectiveness of Egyptian construction foremen revealed no such pattern (Fig. 2). Spearman's rank correlation coefficients (Rho) between the effectiveness of the leader and the three situational factors, are presented in Table 1.

A Stepwise Multiple Regression procedure, using SPSSx computer package (Statistical Package for Social Science) was used to determine the relative importance of the three situational factors to the leader's effectiveness. The LMR was excluded from the equation. The study reporte that the position power of the leader is found to be the most determinant factor of the leader's effectiveness, followed by task structure.

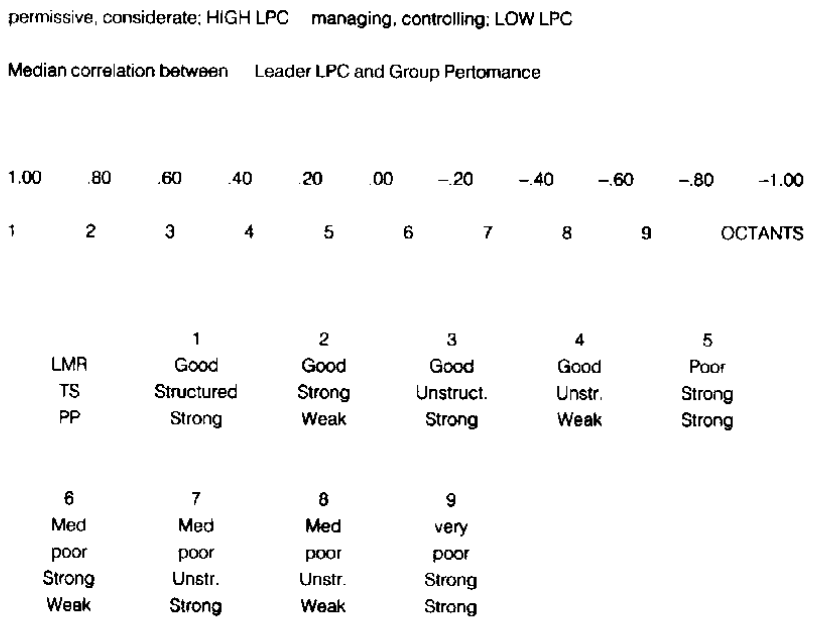

Fig. 1. The relationship between the situational favorability and the median correlations between the LPC scores and the group performance. Abstracted from [3, p. 175].

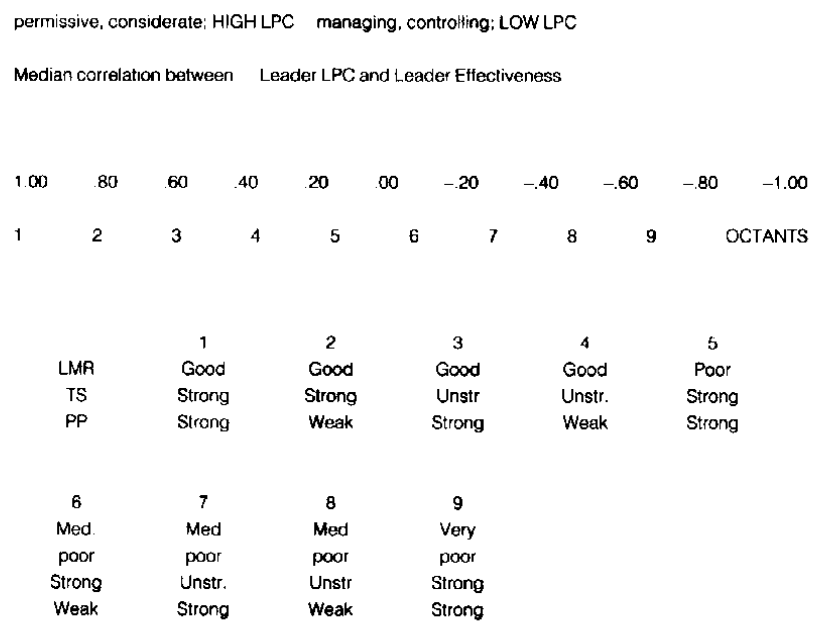

Fig. 2. Curve between Rho correlation coefficient and foremen effectiveness using Fiedler's weight factors. Abstracted from [4, p. 116].

Table 1. Determinant factors of leader's effectiveness.

	Effectiveness
PP	+ .352a
TS	+ .289a
LMR	+ .020b

a. significant at <.00

b. non significant

Source: Abstracts from Abdehaleem [4, p. 122]

As a result of the above findings, new weighting factors were given to the three situational factors. These weighting factors are expressed in the following formula:

$$LSC = (4)\,PP + (2)\,TS + (1)\,LMR$$

Consequently, an equivalent curve was introduced by, a) rearranging the nine possible octants and, b) re-calculating the new leaders' situational control scores (Fig. 3). The new curve simply suggests a linear type of relationship between the leadership orientation and the situational control. People-oriented leaders are likely to be more effective when situational control is high. Task-oriented leaders perform better in low situational control conditions.

Horses for Courses in Construction Projects

Undoubtedly, one study does hardly form a sufficient basis to claim that Fiedler's model needs to be modified when applied to the construction industry. However, if the pattern which was found does prove to be typical, then some points of differences would arise in the kind of advice that is appropriate to construction. Some circumstantial reasons for such difference are suggested below.

In common with Fiedler, it would first be important to establish a leader's orientation. It is believed that Fiedler's LPC measure does that satisfactorily.

When a foreman is identified as a people-oriented leader, the advice would then be to increase his situational control. Assuming that a people-oriented foreman is more likely to develop good leader-member relations, he would also benefit from having a more structured and well-defined task environment and greater position power.

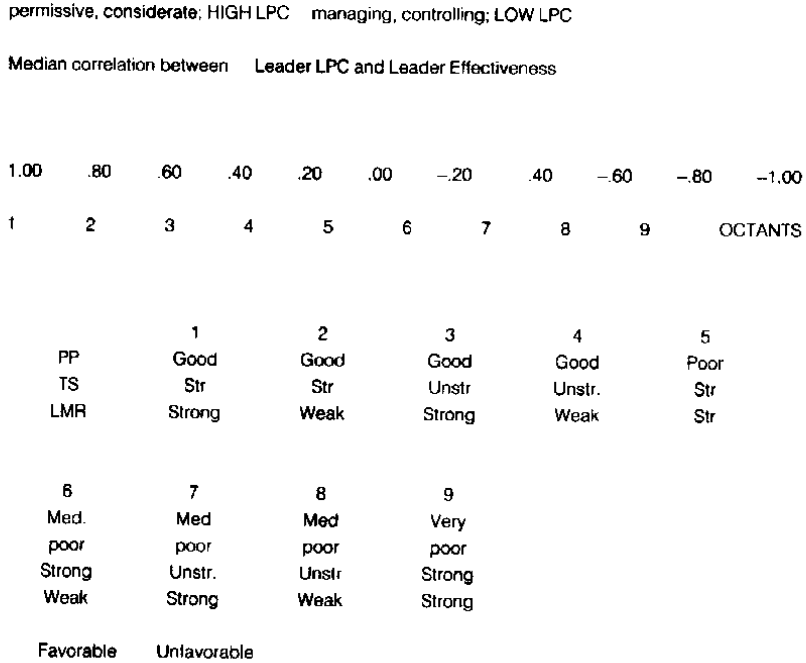

Fig. 3. Curve between Rho correlation coefficient and foremen effectiveness using new wieght factors and re-arranged octants. Abstracted from [4, p. 116].

Clearly, task structuring is precisely what the construction industry has difficulty in affecting. This might be attributed to the interdependence and uncertainty of construction activities. Many construction tasks, due to their own nature, rely on practitioners being guided by trade and industry conventions rather than on detailed and formal instructions. In such circumstances, one would expect the effect of increasing the foreman's position power to be even more significant on his over all effectiveness. Perhaps, even more importantly, greater position power would increase his capacity to secure the necessary materials, drawings, specifications and the general cooperation of other individuals and work groups on whom any given activity in construction is dependent for its performance.

On the other hand, when a situation is of low situational control, and it is hard to make it otherwise, a task- oriented leader is likely to be more efficient than a people-oriented counterpart. This situation might be found where work group has recently been assembled, and tasks are irremediably difficult. Now, the interesting thing is that such situations are likely to be seen as the norm in construction hence the received wisdom is that only tough, no nonsense, task-oriented foremen are expected to bring about the best results out of the work group. Consequently, much of the training literature which emphasize the benefits of a people- oriented leadership style is likely to be treated with scepticism since the conditions in which would be effective are invariably missing. Foremen who are intrinsically disposed to be people- oriented find that they have to assume a task-oriented style, probably not very successfully and certainly to their own discomfort. This is not because their prefered style is at fault but because they have little control over the situation.

Finally, and on this point the author differs most from Fiedler, though the task-oriented leader is likely to be effective in low situational control conditions, he will be ineffective in conditions of high situational control. This point is evident from the curve which was suggested in the construction foremen study (Fig. 3). It follows that if a task-oriented leader is placed in a situation where, for example, a quality management scheme is in effective operation, that is where that the situation will probably be highly favorable to him, he may prove ineffective. It is also proabably that the foreman's effectiveness will be deemed to merit greater support and cooperation on the part of superiors to the extent that the grounds for his effectiveness are reduced. On the other hand, those who would become effective, given greater situational control, are rejected. Such wastage of human resources may have yet more serious implications when it comes to development and promotion to higher management levels. People-oriented leaders who never progress beyond foreman level and remain relatively inefficient at that, may well have proved successful as middle and senior managers if a correct diagnosis is made.

Conclusion

The purpose of this article has been to raise the question of how applicable are models and approaches developed in settings other than construction when applied to the construction industry.

As has been already acknowledged, leadership in the special circumstances of construction needs to be explored further before firmer conclusions can be drawn. However, efforts to locate construction under general explanatory models, developed on the basis of research in other industries, have exposed the inadequencies of these models. More to the point, the advice offered by management training textbooks should be dealt with carefully when applied to construction. The basis on which the industry selects and employs its personnel and supervisors, in such a changing world, should be more systematically researched to insure its applicability to construction.

Construction has always been known as a rough and steady industry. Effectiveness has been synonymous with task-oriented leadership. It is likely to remain an industry of high risk and uncertainty, with continual formation and dissolution of work teams, with temporary coalitions of divergent economic interests. But insofar as it does become more regulated and subject to more sophisticated management procedures, care must be taken to ensure that the appropriate leadership styles will be cultivated.

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فعاليّة القيادة في صناعة الإنشاءات

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ملخص البحث. ظهرت في العقود الأخيرة أبحاث عديدة في مجال علم الإدارة تتعلق بموضوع «القيادة» وأنماطها المختلفة وآثارها على فعاليّة المؤسسات وإنتاجيّتها. وقد اتخذت هذه الدراسات بيئات عديدة مجالاً لأبحاثها كالبنوك والمؤسسات التجاريّة والصناعيّة والحربيّة. ومن ثم، وافقت نتائجها تلك الملامح الخاصة بهذه الصناعات. إلا أن تلك الأبحاث أغفلت بشكل يكاد يكون تامًا ما يتعلق بصناعة الإنشاءات ومؤسسات الهندسة والبناء. وكان من نتيجة ذلك أن اعتمدت تلك المؤسسات، في مجالي التدريب والتعيين لقياداتها ومديريها، على برامج استنبطت من خلال البحث في بيئات أخرى عدا الإنشاءات.

والهدف من هذا المقال هو توجيه برامج التدريب وإدارات التعيين في صناعة الإنشاءات إلى بعض الملامح الرئيسة، والتي استنبطت من بحث قُدّم عام ١٩٩٠م للحصول على درجة الدكتوراه من قسم إدارة المشروعات، كلية الهندسة المدنية، جامعة برمنجهام، إنجلترا، للمساعدة على تحقيق مبدأ «**الرجل المناسب في المجال المناسب**» والحصول على أفضل النتائج والفعاليّات في مجال الإنشاءات.

وقد وجّه المقال إلى ضرورة إعادة النظر في تلك المعطيات التي قدّمها العالم الإداري الأمريكي فريد فدلر في أبحاثه في هذا المجال، والتي تمثّل الأهمية النسبيّة لعناصر تحكم القائد أو المدير في مجموعته العاملة وقدرته على استخراج أفضل النتائج، حين التعامل مع المشروعات الإنشائية.

كما يؤكد المقال على ضرورة منح المراقبين الإنشائيين الجدد أو حديثي التخرج سلطة أقوى في مجال عملهم لتحقيق أفضل النتائج عكس السائد من أن الدعم والسلطة الممنوحة من المؤسسة يتناسب طرديًا مع مدة الخبرة والعمل في تلك المؤسسة.