Modeling of organizing function management in Vietnam’s public construction works

Ngo Anh Tuan, Nguyen Luong Hai and Pham Huy Tung

Institute for Transport Administration and Management Cadres, Co Nhue Ward, Bac Tu Liem Dist., Hanoi, Vietnam
University of Transport and Communications, No. 3 Cau Giay St., Lang Thuong Ward, Dong Da Dist., Hanoi City, Vietnam
Vietnam Maritime University, No.484 Lach Tray St., Kenh Duong Ward, Le Chan Dist., Haiphong City, Vietnam

ABSTRACT

Organizing function is the significant component of management guaranteeing the success of construction works. Many studies have been emphasizing on the topic of critical success factors (CSFs) within construction works, yet the results have rarely emphasized examining organizing behaviors within public construction work management; these less researched topics were the aims of this study. To fulfill this research aim, a regression analysis design was employed. Data were collected using questionnaires conducted from 139 professionals involved in public construction works management in Vietnam. The structural equation modelling (SEM) technique with partial least-squares estimation (PLS) was utilized to analyze the data. The results revealed 6 behavioral dimensions (i.e., structure organizing (OR1), authorization organizing (OR2), coordination organizing (OR4), human resource organizing (OR3), job organizing (OR5), responsibility organizing (OR6) to assess organizing function in terms of public construction work management. The study also reveals that structure organizing (OR1), authorization organizing (OR2), coordination organizing (OR4) have significant effects on management effectiveness (ME). In addition, coordination organizing (OR4) acts as the mediator of Human resource organizing (OR3), job organizing (OR5); while responsibility organizing (OR6) indicates an indirect influence through the mediator of OR5. The success of this approach is expected to reinforce the contribution of organizing function and suggest a useful tool for supporting the professionals in enhancing public construction work management.

1. Introduction

Over the years, a large body of work has emphasized the critical management behaviors that have been mentioned as an essential determinant of the construction project organization’s effectiveness. This approach to construction project success has been paid consideration by academics in the literature and has been the subject of a range of perspectives in validations of its attributes in recent years. Chua, Kog, and Loh (1999) clarified managerial behavior as factors related to teams’ behaviors that contribute significantly to the successful management and the work performance; those behaviors are related to competency, commitment and contribution of the project manager, the active involvement and collaboration of other key members; the level of support from top management, the team turnover rate; suppliers’ track records, and suppliers’ levels of service. Other works have revealed evidence of the relationship between managerial behaviors and the performance of a project organization, in which behavioral management among construction workers in regards to commitment, coordination, and competence contribute to high project performance (Jha & Iyer, 2007). Likewise, in project management settings, human resource management (Papke-Shields, Beise, & Quan, 2010), the involvement of top management (Kandelousi, * Corresponding author. Tel.: +84-912-880-643 E-mail address: hainl@utc.edu.vn (N.L.Hai)

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2011), the project manager leadership, communication mechanisms, partnership, and the cohesiveness of the project teams (Yang, Huang, & Wu, 2011) are essential management behaviors to the success of the project management.

However, the evolution of management behavior has not yet clarified the nature and extent of its inherent functions, that is, the organizing function, one of the essential management functions that involve developing an organizational structure and allocating human resources to enable efforts to be coordinated, ensuring the accomplishment of the organization’s goals and objectives (Nguyen, 2021; Rudani, 2020). How does the organizing function impact on management performance of public construction works? Still, the literature has reported on critical problems of construction works in terms of poor quality, cost overrun, and time-delayed (Ibrahim, Roy, Ahmed, & Imtiaz, 2010; Kashiwagi, Kashiwagi, Kashiwagi, & Kashiwagi, 2012; Xiong et al., 2014). Conversely, it appears irrational to define a collective management behavior approach to the success or failure of the management effectiveness; it is a matter of which behaviors could appropriately explain organizing function management of construction works. Thus, it is significant to determine each organizing behavior and to examine how each interrelates to management performance, a rare approach that has not been an area of consideration in the previous works.

The aims of this study are thus to define the attributes of organizing function and examine their impacts on management performance. For academics, this study expands the current body of knowledge of organizing function factors that affect management performance by an in-depth investigation of organizing behavior’s attitudes. For practices, this approach is significant for providing a useful organizing tool that facilitates public work professionals in delivering public works-intensive operations. The study design is structured into four sections. First, the study design is justified in terms of organizing functions and management performance in public work organizations, and the research hypothesis is developed. Second, the research methods are introduced. Third, the research results and discussions are presented. In the fourth and final section, conclusions are drawn.

2. Theoretical Foundation

2.1 Organizing function

An organizational process covers activities that transform inputs into outputs that customers value (Hammer & Champy, 1994; Nguyen & Watanabe, 2017). Organizational structure is known as the essential element of organizing function, which is the vertical and horizontal configuration of departments, authority, and jobs within an organization. The structural behaviors are concerned with questions such as, “Who reports to whom?” and “Who does what?” and “Where is the work done?”. Traditionally, organizational structures have been based on some form of departmentalization, which is a method of subdividing work and employees into separate organizational units that take responsibility for completing particular tasks (March & Simon, 1958). The functional departmentalization structure is the most commonly used, particularly in small or just starting out organizations. Functional departmentalization organizes work and employees into separate units responsible for particular business functions or areas of expertise. A common functional structure in public work organizations might have individuals organized into capitalizing, planning, feasible approval, and human resources departments.

Functional departmentalization has some advantages. First, it allows work to be done by highly qualified specialists. While the employees in the capitalizing department take responsibility for estimating accurate budget and expense figures for works, the employees in the planning department can focus their efforts on designing a work plan that is reliable and simple to the approval stage. Second, it could lower expenses by reducing repetition (Rudani, 2020) due to each department being only responsible for their area professionals. Third, the departmental managers face less problems (Morden, 2017) due to all subordinates in the same department having similar work experience or training, communication and coordination. At the same time, functional departmentalization has a number of disadvantages. For example, cross-department coordination can be problematic since managers and employees are often more interested in doing what is right for their functional department than in doing what is right for the entire organization, particularly in bureaucratic public departments where employees seem to have less accountability. In addition, as organizations grow, functional departmentalization may also lead to slower decision making and managers and employees with narrow experience and expertise.

Organizational structure is also formed by the type of product departmentalization, which organizes work and employees into separate units responsible for implementing particular works or services (Morden, 2017; Rudani, 2020). As such, the product departmentalization, like functional departmentalization, allows managers and employees to specialize in one area of expertise. However, unlike the narrow expertise and experiences in functional departmentalization, the managers and employees could develop a larger set of experiences and expertise related to an entire product line. Likewise, product departmentalization makes it easier for top managers to evaluate work-unit performance because of the clear separation of their diverse product divisions. In addition, decisions could be faster delivered since managers and employees are responsible for the entire product line rather than for separate functional departments; in other words, there are fewer conflicts compared to functional departmentalization. However, the primary disadvantage of product departmentalization is duplication. Different divisions have the same units such as consultant service, engineering, human resources, legal, constructing, and procurement departments. Duplication like this often results in higher costs. For example, if the organizations were instead organized by function, in which one legal department could handle matters related to several departments rather than working on only one or the other.
The next important part of traditional organizational structures is authority, which is the right to give commands, take action, and make decisions to achieve organizational objectives (Fayol, 2016). The chain of command is the vertical line of authority that clarifies who reports to whom throughout the organization. Managers higher in the chain of command have the right to give commands, take action, and make decisions regarding activities occurring anywhere below them in the chain. As such, unity of command is the essential assumption underlying the chain of command, which means that employees should report to just one superior (Fayol, 2016). In practical terms, this means that only one person can be in charge at a time. Matrix organizations, for example, in which employees have two superiors, automatically violate this principle. This limitation of the matrix organization explains its difficulty in management. The unity of command assists in preventing the confusion that might arise when an employee receives conflicting commands from two different managers.

In addition, managers can also exercise their authority directly by carrying out tasks themselves, or they can choose to pass on some of their authority to subordinates. Delegation of authority is the assignment of direct authority and responsibility to a subordinate to complete tasks for which the manager is normally responsible. When a manager delegates work, he/she will transfer full responsibility for the assignment to the subordinate. In some organizations, when a subordinate has been delegated to a certain task, he/she becomes the DRI, or the “directly responsible individual” who of course, is responsible for completing that delegated responsibility. Furthermore, when people are trying to figure out who to contact to get something done in such corporate structures, people simply ask, “Who’s the DRI on that?” (Lashinsky, 2011). Many managers, however, find giving up full responsibility somewhat difficult since they feel fear when they deliver a delegation, the task could not be done as well as if they did it themselves. However, it is commonly said that “If you can delegate a task to somebody who can do it 75 percent to 80 percent as well as you can today, you delegate it immediately.” This strategy is encouraged as many activities do not need to be completed perfectly; they just need to be done. Delegating tasks that someone else can do frees managers to assume other important responsibilities. Good managers need to trust their subordinates to be responsible for the job.

Organizing function is also connected to job specialization that occurs when a job is composed of a small part of a larger task or process. Specialized jobs mean the jobs are designed to be simple, easy-to-learn steps; low variation; and high replication. One of the clear disadvantages of specialized jobs is that, being so easy to learn, they quickly become boring. This, in turn, can lead to low job satisfaction and high absenteeism and employee turnover, all of which are very costly to organizations. However, organizations still commit to create and use specialized jobs due to their economical approach. As seen, if a job has been specialized, then it will take little time to learn and master. Consequently, when experienced employees quit or are absent, the organization can replace them with new employees and lose little productivity. Because of the efficiency of specialized jobs, organizations are often reluctant to eliminate them. Consequently, job redesign efforts have focused on modifying jobs to keep the benefits of specialized jobs while reducing their obvious costs and disadvantages. Three methods—job rotation, job enlargement, and job enrichment—have been used to try to improve specialized jobs (Griffin & company, 1982).

**Job rotation** attempts to overcome the shortcomings of job specialization by periodically moving employees from one specialized job to another, giving the employees more variation and the opportunity to practice diverse skills. Because employees just shift from one specialized job to another, thereby allowing organizations to retain the economic benefits of specialized work, while the greater variety of tasks makes the work less boring and more satisfying for employees. **Job enlargement** is another way to counter the shortcomings of job specialization by increasing the number of different tasks that an employee performs within one particular job. Instead of being assigned just one task, employees with enlarged jobs are given several tasks to perform. Though job enlargement increases variety, many employees report feeling more stress when their jobs are enlarged. Consequently, many employees view enlarged jobs as simply more work, especially if they are not given additional time to complete the additional tasks. **Job enrichment** attempts to overcome the deficiencies in specialized work by increasing the number of tasks and by giving employees the authority and control to make meaningful decisions about their work (Herzberg, 1966). Another way of redesigning organizational processes is through responsible assignment. Responsibility design is related to empowering employees by permanently passing decision-making authority and responsibility from managers to subordinates, in which organizations must give them the information and resources they need to make and carry out good decisions and then reward them for taking individual initiative (Spreitzer, 1995). In other words, employees will not feel very empowered and have full responsibility if they constantly have managers looking over their shoulders. Therefore, human resource management plays a vital role in defining the fundamental prerequisites for the human resource organizational structure. The structure must restrict the free flow of information, thereby clear communication channels are designed so all employees know information significant for their job, avoiding employees who do suffer from insufficient information.

### 2.2 Management effectiveness

Managerial effectiveness reflects the ability of an organization’s teams and leaders who can manage scarce resources to achieve organizational goals, productivity increase, employees’ satisfaction, development, return and diversification (Badiru, 2005; Santa, Ferrer, & Hyland, 2006). Having considered, public construction works are commonly concerned with works financed by public sectors. As a result, its effectiveness measurements are central to the performance of construction works and legislative requirements, which are assessed by various performance measurements associated with the construction industry. For years, a large number of works (Avots, 1969; Carvalho, Patah, & de Souza Bido, 2015; Gaddis, 1959; Nguyen, 2019a; Ogunlana, 2010; Pinto & Slevin, 1988; Shenhar & Dvir, 2008) suggest the “iron-triangle” of quality,
time and budget that are the essential performance of construction works. In addition, the satisfaction aspect is considered as a significant supplement of the “iron-triangle” formula (Bedell, 1983). Likewise, Pinto and Slevin (1988) highlighted the balance between specification indicators and satisfaction in terms of work success. Although the application of satisfaction measurement was undoubted in the fields of psychology, business, marketing, and economics (Liu & Leung, 2002), it is relevant to apply a similar measurement to the performance outcomes (Nerkar, McGrath, & MacMillan, 1996) due to its disparity expression between “How much is there?” and “How much should there be?” (Wanous & Lawler, 1972). Therefore, based on the traditional performance measures of quality, time, and budget, satisfaction measurement has been integrated as an appropriate approach to assessing construction works’ management effectiveness (Davis, 2014; Nguyen, 2019a; Williams, Ashill, Naumann, & Jackson, 2015). Satisfaction with construction works’ performance has pertained to a holistic post-approval of works’ quality (ME1) (Alias, Zawawi, Yusof, & Aris, 2014; Baloi & Price, 2003) works’ schedule (ME2) (Cserháti & Szabó, 2014; Garbharran, Govender, & Msani, 2012) and works’ budget (ME3) (Alias et al., 2014; Cserháti & Szabó, 2014; Garbharran et al., 2012).

3. Research methods

3.1 Developing organizational behavior’s attributes

To develop organizational behavior’s attributes, some common methods were employed including focus group studies (FGSs), focal interviews, field studies and a literature review. FGSs are used as an effective method to examine specific behaviors or beliefs, the circumstances in which they occur, and the diversity of experiences and perspectives on specific issues. Discussions and interviews were designed in the semi-structured presentation, including the following sequent components: the introduction, the opening questions, the introductory questions, the transition questions, and the closing questions (Hennink, 2013). Principally, the primary topics and associated inquiries were first delivered, and then additional inquiries were then added as necessary. In addition, the participants and interviewees were initially provided with the current literature on organizing functions, clarifying the notion of organizing function attributes. They were then asked related questions about the study attention. A selection of primary questions is listed below: How do you understand the principles of organizing function management? What common difficulties in terms of organizing management functions occur over the public construction work management? How would you describe organizing function behavior? What attributes should be measured in terms of organizing behaviors? In your experience, what types of organizing behaviors lead to low or high management performance? How would you describe the measurement of management performance within public construction work? As a result, 6 attributes were compiled and suggested for measurement as an organizing function (Table 1).

<table>
<thead>
<tr>
<th>Function</th>
<th>Attributes</th>
<th>Code</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure organizing</td>
<td>OR1</td>
<td></td>
<td>Structural design is flexibly applied for units and people to deliver tasks and accomplish challenging goals</td>
</tr>
<tr>
<td>Authorization organizing</td>
<td>OR2</td>
<td></td>
<td>The degree of authorization is set for the management of public construction works.</td>
</tr>
<tr>
<td>Human resource organizing</td>
<td>OR3</td>
<td></td>
<td>People are assigned in appropriate positions of the structure, assisting people and units to deliver work productively.</td>
</tr>
<tr>
<td>Coordination organizing</td>
<td>OR4</td>
<td></td>
<td>Coordination structure are designed and encouraged over the course of the work implementation.</td>
</tr>
<tr>
<td>Job organizing</td>
<td>OR5</td>
<td></td>
<td>Job structure are designed to ensure jobs are effectively managed over the course of the work implementation.</td>
</tr>
<tr>
<td>Responsibility organizing</td>
<td>OR6</td>
<td></td>
<td>Responsibility is assigned to employees through designing powerful authority structure</td>
</tr>
</tbody>
</table>

3.2 Hypotheses

The organizing functions of public construction works are not so much relevant to the internal businesses or a single construction project as they are of the public spending practices in which regulation and scarce resources are essential restrictions needed to accomplish the works. In addition, multiple-involved public organizations may cause different behaviors and expectations for work. This practice requires management designing structures and jobs productively implemented. Therefore, organizing functional behaviors arguably positively impacts management performance. Therefore, the following hypotheses are suggested.

Hypothesis 1: Structure organizing has a positive influence on the management effectiveness of public construction works.

Hypothesis 2: Authorization organizing has a positive influence on the management effectiveness of public construction works.

Hypothesis 3: Human resource organizing has a positive influence on the management effectiveness of public construction works.

Hypothesis 4: Coordination organizing has a positive influence on the management effectiveness of public construction works.
Hypothesis 5: Job organizing has a positive influence on the management effectiveness of public construction works.

Hypothesis 6: Responsibility organizing has a positive influence on the management effectiveness of public construction works.

3.3 Data collection

Data were collected by professionals who had been working in public construction works in Vietnam. The respondents were serving in positions of government officials, state auditors, and public clients. As a result, questionnaires were distributed to 220 randomly targeted participants who were asked to answer specific survey inquiries based on their experiences in recent activities in public construction works. Of the contacted people, 139 valid responses were obtained for investigation. Among the final set of valid samples, 59 and 27 of the respondents were public work officials and state auditors, respectively, and the remaining 53 were public clients. In terms of respondents’ profiles, 81% of them had over ten years of experience in the public construction work management and all respondents held a bachelor’s degree.

3.4 Measures

The respondents were asked to answer by their experience in public construction works on a five-point Likert scale of 1 (strongly disagree/not at all satisfied) to 5 (strongly agree/extremely satisfied). Confirmatory factor analysis (CFA) and SEM were then performed as the main methods to test the research hypotheses. The CFA method is commonly employed to examine the reliability and fitness of the factor structure of organizing attributes. The SEM technique is the most commonly applied to examine the interactive impact among organizing attributes on management effectiveness in a regression model and the extent to which predictors are appropriately integrated into the acceptable model. Covariance-based SEM (CB-SEM) and partial least-squares SEM (PLS-SEM) are the two approaches of SEM, in which the the PLS-SEM uses ordinary least squares, while CB-SEM uses maximum likelihood estimation (J. Hair, Joseph, Hult, Ringle, & Sarstedt, 2021). Specifically-considered, the PLS-SEM approach was suitably designated for this study because (1) The PLS-SEM does not require large sample sizes as the CB-SEM does (J. Hair et al., 2021); and (2) PLS in general only rarely has convergence problems (Henseler, 2010). To apply the PLS-SEM approach, the assessment of the reliability and validity of the measurement model is first conducted. The structural model is then conducted by examining its explanatory power and the path coefficients.

4. Results and discussion

The impacts of organizing behaviors on and management performance was examined using SEM. The six organizing behaviors are the independent variables in the SEM model. To test the relationship between organizing behaviors and management performance, the number of 5,000 bootstrap samples were also set as recommended by Hair et al. (2016). The results indicate significant and positive correlations between (1) structure organizing (OR1) and management effectiveness (ME) ($\beta = 0.166$, $p < 0.05$) (Table 3), (2) authorization organizing (OR2) and management effectiveness (ME) ($\beta = 0.403$, $p < 0.000$) (Table 3), (3) coordination organizing (OR4) and management effectiveness (ME) ($\beta = 0.182$, $p < 0.05$) (Table 3), human resource organizing (OR3) and coordination organizing (OR4) ($\beta = 0.445$, $p < 0.000$) (Table 3), responsibility organizing (OR6) and job organizing (OR5) ($\beta = 0.500$, $p < 0.000$) (Table 3), job organizing (OR5) and coordination organizing (OR4) ($\beta = 0.257$, $p < 0.000$) (Table 3). The results provide evidence to support Hypotheses H1, H2, and H4. Table 3 shows that the three organizing behaviors (i.e. OR1, OR2 and OR4) directly influence the management effectiveness (ME) in the model, which could explain 59.2% of the variation in ME ($R^2=0.590$). However, there are no direct significant relationships between human resource organizing (OR3) and management effectiveness (ME) ($R^2=0.110$, $p > 0.05$) (Table 3), job organizing (OR5) and management effectiveness (ME) ($R^2=0.081$, $p > 0.05$) (Table 3), and responsibility organizing (OR6) and management effectiveness (ME) ($R^2=0.069$, $p > 0.05$) (Table 3). Additionally, a variance inflation factor (VIF) test was performed to examine the degree of multicollinearity among the independent variables in the regression model. The results revealed all the VIF values are below 2.412 that is much lower than the threshold of 10 as suggested by Hair et al. (1998), which clarifies no multicollinearity or small standard errors of the investigated data (Field, 2000). In addition, the discriminant validity was examined by comparing the square root of the average variance extracted (AVE) and the correlation between latent constructs. The square root of each construct’s AVE is expected higher than the correlations with any other latent constructs (Hair et al., 2021). Accordingly, the results shown in Table 2 indicate that the discriminant validity is not violated and that the six organizing behaviors are different from each other.

Table 2
Comparison of square root of average variance extracted (AVE) and correlation coefficients between constructs

<table>
<thead>
<tr>
<th>Latent constructs</th>
<th>AVE</th>
<th>OR2</th>
<th>OR4</th>
<th>OR3</th>
<th>OR5</th>
<th>OR6</th>
<th>OR1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authorization organizing</td>
<td>(OR2) 1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Coordination organizing</td>
<td>(OR4) 1.000</td>
<td>0.454</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Human resource organizing</td>
<td>(OR3) 1.000</td>
<td>0.642</td>
<td>0.553</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Job organizing</td>
<td>(OR5) 1.000</td>
<td>0.468</td>
<td>0.443</td>
<td>0.418</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Responsibility organizing</td>
<td>(OR6) 1.000</td>
<td>0.390</td>
<td>0.367</td>
<td>0.593</td>
<td>0.500</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Structure organizing</td>
<td>(OR1) 1.000</td>
<td>0.444</td>
<td>0.248</td>
<td>0.514</td>
<td>0.347</td>
<td>0.583</td>
<td>1.000</td>
</tr>
</tbody>
</table>
### Table 3
The results of hypotheses testing

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Coef.</th>
<th>VIF</th>
<th>R square</th>
<th>R square adjusted</th>
<th>$f$ Square</th>
<th>T values</th>
<th>P Values</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR1 → ME</td>
<td>0.166</td>
<td>1.656</td>
<td>0.610</td>
<td>0.592</td>
<td>0.043</td>
<td>2.354</td>
<td>0.019</td>
<td>Supported</td>
</tr>
<tr>
<td>OR2 → ME</td>
<td>0.403</td>
<td>1.916</td>
<td></td>
<td></td>
<td>0.218</td>
<td>4.571</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>OR3 → ME</td>
<td>0.110</td>
<td>2.412</td>
<td></td>
<td></td>
<td>0.013</td>
<td>1.340</td>
<td>0.180</td>
<td>Not supported</td>
</tr>
<tr>
<td>OR4 → ME</td>
<td>0.182</td>
<td>1.594</td>
<td></td>
<td></td>
<td>0.053</td>
<td>2.755</td>
<td>0.006</td>
<td>supported</td>
</tr>
<tr>
<td>OR5 → ME</td>
<td>0.081</td>
<td>1.555</td>
<td></td>
<td></td>
<td>0.011</td>
<td>1.268</td>
<td>0.205</td>
<td>Not supported</td>
</tr>
<tr>
<td>OR6 → ME</td>
<td>0.069</td>
<td>2.044</td>
<td></td>
<td></td>
<td>0.006</td>
<td>0.826</td>
<td>0.409</td>
<td>Not supported</td>
</tr>
<tr>
<td>OR3 → OR4</td>
<td>0.445</td>
<td>1.212</td>
<td></td>
<td></td>
<td>0.255</td>
<td>6.854</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>OR5 → OR4</td>
<td>0.257</td>
<td>1.212</td>
<td></td>
<td></td>
<td>0.085</td>
<td>3.124</td>
<td>0.002</td>
<td>Supported</td>
</tr>
<tr>
<td>OR6 → OR5</td>
<td>0.500</td>
<td>1.000</td>
<td></td>
<td></td>
<td>0.333</td>
<td>7.043</td>
<td>0.000</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Calculation method: Two-stage; Product term generation: Standardized

Fig. 1. Organizing behaviors and management effectiveness

As expected in Hypothesis H1, H2 and H4 the findings clarified that the behaviors of structure organizing (OR1), authorization organizing (OR2), and coordination organizing (OR4) are positively impact on the ME of public construction works. These finding describes that a direct enhancement in the three organizing behaviors (i.e. OR1, OR2 and OR4) could increase
the management performance of public construction works. These findings are expected and clarified by several studies. Firstly, the structure organizing (OR3) behavior is associated with the way that managers and employees communicate effectively, responding the questions: who are the ones and resources needed to support the subordinates’ performance? and how the leaders’ behavior should be in terms of positive connecting with employees? It can be seen that an appropriate and powerful organizational structure can facilitate people and units work together toward common goals and fulfill the final objectives. This finding is also in line with the findings obtained from the FGSs and the work of Hsiao and Wu (2019) who found that organizational structure supports forming managerial competency, influencing the organization’s performance.

An effective organizational structure encourages all efforts coordinated if people or units are clarified their workflows, roles, and obligations; and how the structure works in the organization (Bucic & Gudergan, 2004; Valentine & Edmondson, 2015).

In addition, authorization organizing is needed in the public work environment in which relationships and decisions are overly bureaucratic. This finding can be also explained by Nguyen and Watanabe (2017) who found that superiors to be authorized are capable of organizing and administrating their working responsibilities since they have full power and right to allocate the resources productively to achieve the organizational objectives. Furthermore, people get more clarity of areas in which they have decision-making power and input that make a sense of ownership and responsibility toward the organization. People who have power can deliver a clear direction early that makes subordinates expected, committing to the most likely probability of work success. This result is also interpreted in the public work management in which the organizational structure is not so flat as business organizations. As a result, the teamwork environment is less emphasized; instead, higher positions in the chain of command have higher power assigned to delivering their authority and delegation to subordinates from the beginning to the end of work. The manager provides subordinates full authority in terms of budget, resources, and personnel needed to carry out the job. To do the job effectively, subordinates must have the same tools and information at their disposal that managers had when they were responsible for the same task. In other words, for delegation to work, delegated authority must be commensurate with delegated responsibility. The transfer that also occurs with delegation is the accountability, in which the subordinate now has the authority and responsibility to perform the job and, in return, is accountable for getting the job done. In other words, managers delegate their managerial authority and responsibility to subordinates in exchange for results.

Finally, coordination organizing plays a vital role in enhancing management effectiveness. The coordinated behavior refers to a coordination and integration culture with different stakeholders involved in the organization, which helps stakeholders understand the mutual impacts of their actions and ensures that all participants work together toward common management objectives (Nguyen, 2019a). This finding explains the belief that the work performance is possibly accomplished by a process of designing effective communications, clarifying responsibility and scopes, avoiding duplication of work or effort, and mitigating disputes and conflicts (Nguyen, 2019b). This result is to be expected. Public construction works are characterized by their natural complexity and fragmentation of the construction industry (Nasrun, Nawi, Baluch, & Bahauddin, 2014; Riazi et al., 2020); as such, promoting a coordination mechanism is essential to reducing conflicts and improving work performance by ensuring effective utilization of organizational resources (Nguyen, 2020; Nguyen, 2021). The degree of coordination is characterized by a commitment to common benefits, interactions at work, openness and mutual respect, idea exchange and support, risk and conflict resolution, and responsibility clarification among stakeholders, ensuring management productivity and the success of organization (Nguyen, 2019a).

However, the findings were unrelated to the theoretical importance of the human resource organizing behavior (OR3), job organizing behavior (OR5), and responsibility organizing behavior (OR6). For any productive organization, coordinating between people and work design are important, guaranteeing the success of the organization. This redundancy may be explained by the mediator of the coordination organizing behavior, which has been found as the central management that could permit these potential impacts on the management performance.

5. Conclusions

This study aimed to conceptualize the framework of organizing function within the context of public construction works, which was characterized by practices derived from a multi-involved organization. In this respect, six functional behaviors were first derived through FGSs, a literature review and focal interviews with practitioners in the industry. Using Vietnam as a case study, the organizing behavior measurements were collected and highlights the importance of clarifying structure organizing (OR1), authorization organizing (OR2), human resource organizing behavior (OR3), coordination organizing (OR4), job organizing behavior (OR5), and responsibility organizing behavior (OR6) in which all people and units are clearly provided structural description, authority, human resource design, job design, coordinating mechanism and responsibility for their work in the whole plan. These organizing functions were then used to analyze the significant associations between each functional dimensions and management performance through the robust models shown in Table 3. The findings indicate that structure organizing (OR1), authorization organizing (OR2), and coordination organizing (OR4) contribute to better management performance. This finding reflects the ability of defining the appropriate structure, the authority and the co-ordination between effort and accountability. These judgments regarding organizing behavior effects infer that organizing function should be highlighted as a prioritized management tool that contributes to the public work accomplishment, demonstrating that greater effort is needed to promote positive behavior among involved people and units as part of the successful management.
This study has confronted limitations. First, this study accepts the limitation of testing data only from Vietnamese professionals, which are undoubtedly valid for the specific case, yet their outside applicability is uncertain. Therefore, it would be worthwhile for further research that investigates international comparisons on organizing function and its impacts. In addition, this study was constrained by a comparatively small sample size. Although the use of the PLS-SEM approach and bootstrapping technique with 5,000 resamples could reduce the potential effects of the small sample size, increasing the volume of data is expected to offer a higher accurate outcome, which would better convince practitioners in changing their mindset and behaviors to improved management.

Conflicts of Interest
There is no conflict of interest in this article and all our future articles.

References


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