# STRATEGY IMPLEMENTATION OBSTACLES ENCOUNTERED BY MALAYSIAN ENGINEERING CONTRACTORS

**Mustafa bin Zakaria**
**Hishamuddin bin Dahalan@Omar**
**Norizan Ahmad**
College of Business
Universiti Utara Malaysia

Strategy implementation is one of the three fundamental components of the strategic management, besides strategy formulation and strategy evaluation and control. Strategy implementation is considered as most difficult because it affects the organizational culture, structure, resources and in fact the whole texture of an organization. Much of the studies on implementation indicate that the success rate of strategy implementation seems to be low. Despite, a review of the strategic management literature indicate that not much research emphasis given on the implementation side of strategy in Malaysia. This paper presents an attempt to examine strategy implementation among contractors registered with the Malaysian Department of Irrigation. More specifically this paper investigated the strategy implementation obstacles faced by the contractors. The population in this study consisted of personnel who had experience in handling problem projects of the Malaysian Irrigation Department. Structured interview and mail questionnaire were used to obtain data for the study. In this study the obstacles are broken down into eight dimensions which are purchasing, construction facility, human resource, finance, operations, management information system, sales, and environment. The three most challenging obstacles are those pertaining to the environment, management information systems, and human resource.

## INTRODUCTION

Strategy implementation is one of the three fundamental components of the strategic management. Strategic management scholars agree that strategy implementation is a vital component of the strategic management process, despite strategy implementation is only activated after the process of strategy formulation.

Strategic management scholars and practitioners such as Speculand (2009) and David (2013) point out that implementing strategy is not easy. Implementing strategy is more difficult as it affects the organizational culture, structure, resources and in fact the whole texture of an organization.

Speculand (2009) noted that nine out of ten strategies failed to be implemented successfully. Similar obstacles in strategy implementations are observed in other studies such as those by Miller (2002) and Mankins and Steele (2005). Much of the studies on implementation indicate that the success rate of strategy implementation seems to be low.

The inability of firms to carry out successful strategy implementation can be attributed to the level of knowledge in strategy implementation (Hussey, 1999; Hrebiniak and Joyce, 2001). Accordingly academicians and practitioners seem to have greater knowledge on strategy formulation compared to strategy implementation. Subsequently there is a somewhat knowledge deficient situation when strategy is put into practice.

Scholars such as Al Ghamdi (1998), Hrebiniak (2001 and 2005), Hubbard (2000), Hussey (1999) Kazmi (2008) observed that in the field of strategic management, much of the studies had been focused on planning and strategic decisions making. While such studies on planning process and strategy content are certainly useful but it does not lend much benefit to the implementation side of strategy.

Further, Hrebiniak (2001, 2005), Al Ghamdi (1998), Kazmi (2008), Speculand (2009) and a number of strategic management scholars concur that the strategic management literature had not given much focus on the implementation side of strategy. Strategy implementation is a much neglected area in the field of strategic management. According to these scholars a more systematic approach is much needed in the study of strategy implementation.

Thus the above literature suggests that more studies are needed which is focused on strategy implementation. This paper presents an attempt to investigate the strategy implementation among contractors registered with the Malaysian Department of Irrigation. More specifically this paper investigates the strategy implementation obstacles faced by the contractors

## LITERATURE REVIEW

While there is no one standard definitions of strategy implementation, most strategic management scholars concur that strategy implementation is the phase where strategy is translated into action. This implies that strategy implementation is the stage where strategy which is conceived in the form of ideas is translated into action.

Bossidy and Charan (2002), Wheelen and Hunger (2012), and other strategic management scholars agree that strategy implementation covers broad and complex issues. In view of the complex and broad aspects covered during strategy implementation, David (2013) view strategy implementation as the most difficult stage of the strategic management process. It is difficult since during strategy implementation, managers need to influence those down the line to carry out activities. In doing so much discipline, commitment and sacrifice are required from all parties in the implementation process to ensure success.

According to Beer, Eisentat, andd Spector, (1990) and Al Ghamdi (1998) what is considered as problems in the area of strategy lies not with strategy formulation rather it is the failure of strategy implementation. There are various causes for strategy implementation problems and failures. For instance Cocks (2010) attributes implementation failure due to poor capabilities, inadequate process and activities that are required for successful implementation.

In a study, Eisenhardt (1993) suggests that most of the hurdles in implementation are due to incompetence, poor coordination, and lack of commitment. Al Ghamdi (1998) further elaborates

these three hurdles to implementation as ineffective coordination of implementation activities, insufficient capabilities of employees, inadequate training of employees, and lack of leadership and discretion of middle managers.

Further, in one of the earlier studies on the obstacles to strategy implementation, Al-Ghamdi (1998) conducted a survey of 100 firms in the Bradford area, United Kingdom. The author noted that there are six obstacles to implementation: 1. implementation takes more time than planned for, 2. major problems emerged during implementation stage, 3. poor coordination, 4. other non implementing activities divert attention from implementation, 5. unclear implementation tasks and activities, 6. poor information systems.

In a more recent study, Hrebiniak (2006), one of the leading researchers in the field of strategy implementation noted from his research that there are five major factors which act as obstacles to strategy implementation. First is the inability to manage change effectively. This inability to manage change stems from the need to change culture in a hurry at what he coins as 'excessive speed'. Second is the issue of vague or unclear strategy. A vague strategy can result in poor or lost of focus. Third is not having a model of implementation that can act as a road map or guidance for managers, and help to set priorities in execution. Fourth is inadequate information sharing and unclear responsibility. Effective execution also requires enough information sharing in order to carry out implementation activities. Likewise unclear responsibility makes it difficult to coordinate activities as the managers and employees are not sure who is in charge. Finally, working against the established power structure in the organization, strategy which is in conflict with those with influence at the various organizational levels will only create dysfunction implementation activities.

According Bushardt, Glascoff, and Doty (2011) organizational culture can assist or undermine strategy implementation by gaining commitment and efforts from organizational members. Along the idea proposed by Schein (1992) a more effective way to gain commitment and efforts from organizational members is to align reward system with the organizational culture instead of aligning reward systems to organizational goals. In this way the organization will be able to directly manage its organizational culture to support strategy implementation.

As far as the board of directors role is concerned in managing implementation, Brauer and Schmidt (2008)'s study reveals that board of directors is able to monitor strategy implementation and identify implementation problem based on the intended strategy and the resource allocation decision that ensued. The extent of consistency of the resource allocation decision with the intended strategy reflects the intensity of a firm to adhere to the intended strategy or, move away to a different path which can lead to potential problem.

In a study that covers 300 companies of various sizes, ownership, and scope of operations scattered all over Latin America, Brenes, Mena, and Molina (2008) highlighted that the difference between successful and fail implementation effort depends on five factors. Their research reveals that five factors can make a difference between success or failure when implementing strategy. The five factors are 1. the strategy formulation process, 2. systematic

execution, 3.strategy control and follow up, 4.change initiatives, and 5. CEO leadership and management and employees motivation in strategy implementation. All the five factors are comprehensive and interact with each other to influence implementation.

Taslak (2004) conducted a study to identify factors which inhibit the success of strategic decisions among the Turkish textile industry. The researcher identified six problems related to the implementation of strategic decisions: 1. more time is required to accomplish strategy than planned, 2. unforeseen environmental factors, 3. other activities that distract attention from implementation, 4. problem in implementation that were not informed earlier to management, 5. problems surfaced not identified earlier, 6. no active involvement of key decisions makers in the implementation process.

In a study which attempts to identify obstacles to implementing strategy among food companies in the Fars Province of Iran, Ali and Hadi (2012) conducted a survey on 169 senior managers and consultants. The researchers are able to identify five obstacles to strategy implementation. Interestingly, the first major obstacle is the individual factor which includes incapable employees, fear of losing job, do not understand company strategy, lack of team spirit and resistance to the change process. This is then followed by other obstacles namely, poor planning, organization communication system, environmental changes and unsupportive management.

The practice of strategic management can have a positive impact on the large construction companies in Malaysia, (Abu Bakar, Tufail, Yusof, and Virgiyanti, 2011). However the researchers caution that in order to reap the benefits, strategic management should properly be installed and implemented by the contracting firms. The researchers further propose that mere formulation is not enough, to survive over the long term contracting firms need to focused on the implementation aspect as well, particularly efficient organization structure which is closely linked with the cooperate culture of the firms.

In this study eight dimensions of strategy implementation obstacles are identified. The dimensions are purchasing, construction facility, human resource, finance, operations, management information system, sales, and environment.

## METHODOLOGY

### Population and Sampling

The population in this study consisted of personnel who had experience in handling problem projects of the Malaysian Irrigation Department. They are officers, contractors and consultants of the department. The number of officers, contractors and consultants involved with supervising problem projects of the department totaled 444. From the total, 222 are selected to participate in the study in which 148 provided their responses. The 148 responses obtained in the study yields a response rate of 67 percent. Data for the study was collected through structured interview and mail questionnaire.

## Questionnaire

Structured questionnaire was used to obtain data for the study. The questionnaire comprised three parts. The first part covered the background of the respondents. There are seven items in this section that include gender, age, race, education level, job title, work experience, and experience in construction project. The second part of the questionnaire covered the background of the contracting firms that are experiencing problems with their projects awarded by the department. The second part covered items on location, number of projects implemented within the past three years and the number of employees of the contracting firm. The third part comprised the different kind of obstacles identified in completing the projects. The obstacles are divided into 8 categories with a total of 48 items. The obstacles are categorized based on strategy implementation literature and verified by the consultants and officers incharged of the projects. The eight category of obstacles based on strategy implementation activities are purchasing, construction equipment, human resource, finance, operations, management information system, sales, and external factors. The strategy implementation obstacles were measured using numerical scale ranging from (1) for Completely Disagree to (5) for Completely Agree.

## RESULTS

## Background of Respondents

The 148 respondents who participated in the study comprised 104 officers of the Irrigation Department, 11 consultants and 33 representatives of the contractors. The background of the respondents is given in Tables 1 and 2. Table 1 showed the gender, ethnicity, education level, and position of respondents in their respective organizations. As shown, 123 (83 percent) of the respondents are male respondents while the remaining 25 (17 percent) of the respondents are female.

In terms of ethnicity, there are 133 Malay respondents (89.9 percent), 10 Chinese respondents (6.8 percent), 4 Indian respondents (2.7 percent) and one respondent (0.7 percent) from other ethnic group category. Majority of the respondents i.e. 96 respondents (64.9 percent) are bachelor degree holders, followed by 24 respondents (16.2 percent) who are Master degree holders. A number of 19 respondents (12.8 percent) with diplomas, seven respondents (4.7percent) with certificates and 2 respondents (1.4 percent) with PhD degrees.

As regard the respondents' position in their respective organizations there are 95 engineers (64.2percent), 20 project managers (13.5percent), 16 directors (10.8percent), 6 site managers (4.1percent) and surveyors (4.1percent) each and finally 5 respondents (3.4percent) in other categories.

Table 2 showed the respondents' number of years of working experience. As shown, 52 respondents (35 per cent) have more than 20 years of experience. This is followed by 42 respondents (42 per cent) in the 11 to 15 years category, 26 respondents (17.6 per cent) in the 16 to 20 years category, and 25 respondents (16.9 per cent) in the 6 to 10 years category. Finally there are three respondents (2 per cent) with less than five years of working experience.

The second part of the Table 2 showed the respondents' number of years of experience in the contract sector. The table showed that 39 respondents (26.4 per cent) have 11 to 15 years of working experience, 33 respondents (22.3 per cent) with more than 20 years of working experience and the same number of respondents with 6 to 10 years of working experience, and 27 respondents (18.2 per cent) with 16 to 20 years of experience. Finally there are 16 respondents (10.8 per cent) with less than 5 years of working experience in the construction sector.

| **Items:** | **Frequency** | **Percent** |
|---|---|---|
| **Gender** | | |
| Male | 123 | 83.1 |
| Female | 25 | 16.9 |
| **Ethnicity** | | |
| Malay | 133 | 89.9 |
| Chinese | 10 | 6.8 |
| Indian | 4 | 2.7 |
| Others | 1 | 0.7 |
| **Education level** | | |
| Certificate | 7 | 4.7 |
| Diploma | 19 | 12.8 |
| Bachelor degree | 96 | 64.9 |
| Master's degree | 24 | 16.2 |
| PhD degree | 2 | 1.4 |
| **Position in Organization** | | |
| Director | 16 | 10.8 |
| Project Manager | 20 | 13.5 |
| Site Manager | 6 | 4.1 |
| Engineer | 95 | 64.2 |
| Surveyor | 6 | 4.1 |
| Others | 5 | 3.4 |

Table 1: Respondents' background: gender, ethnicity, education level, and position

| Items: | Frequency | Percent |
|---|---|---|
| **Working experience (Year)** | | |
| Less than 5 | 3 | 2 |
| 6 - 10 | 25 | 16.9 |
| 11 -15 | 42 | 28.4 |
| 16 - 20 | 26 | 17.6 |
| More than 20 | 52 | 35.1 |
| **Experience in construction** | | |
| Less than 5 | 16 | 10.8 |
| 6 - 10 | 33 | 22.3 |
| 11 -15 | 39 | 26.4 |
| 16 - 20 | 27 | 18.2 |
| More than 20 | 33 | 22.3 |

Table 2: Respondents' working experience

## Background of the Contracting Firm and Project

Table 3 showed the breakdown of the contracting firms for the projects. There are a total of 33 contracting firms. The contracting firms are spread throughout Malaysia except for the states of Perlis and Kelantan. The states of Johor and Sarawak recorded the highest number of contracting firms, each with five contracting firms and this is followed by Selangor with four. The states of Melaka, Pahang, Terengganu, and the Federal Territory each with three contracting firms while the states of Pulau Pinang, Perak, and Negeri Sembilan each with two contracting firms. The remaining states of Kedah and Sabah each recorded only one contracting firms.

The number of projects and the number of employees of the contracting firms are shown in the first and the second parts of Table 4 respectively. Majority of the contracting firms i.e. 29 contracting firms owned from 1 to 2 projects. This is followed by 9 contractors with 3 to 4 projects, 3 contracting firms with 5 to 6 projects, and one contracting firm with 7 to 8 projects in hand. Finally, two contracting firms recorded more than 9 projects. As for the number of employees employed by the contracting firms, as many as 35 contracting firms employed from 1 to 20 employees, five contracting firms with 20 to 40 employees, while 2 contracting firms each employed from 40 to 60 employees, and from 80 to 100 employees.

| **Location of Contracting Firm** | **Number** | **Percentage** |
|---|---|---|
| Kedah | 1 | 3 |
| Pulau Pinang | 2 | 6 |
| Perak | 2 | 6 |
| Selangor | 4 | 12 |
| N.Sembilan | 2 | 6 |
| Melaka | 3 | 9 |
| Johor | 5 | 15 |
| Pahang | 3 | 9 |
| Terengganu | 3 | 9 |
| Federal Territory | 3 | 9 |
| Sabah | 1 | 3 |
| Sarawak | 4 | 13 |
| Total | 33 | 100 |

Table 3: Location of the contracting firm

| **No. of Projects** | **Frequency** | **Percentage** |
|---|---|---|
| 1-2 | 29 | 62.0 |
| 3-4 | 9 | 20.0 |
| 5-6 | 3 | 9.0 |
| 7-8 | 1 | 3.0 |
| More than 9 | 2 | 6.0 |
| **No. of Employees** | | |
| 1-20 | 35 | 77.0 |
| 20-40 | 5 | 11.0 |
| 40-60 | 2 | 6.0 |
| 80-100 | 2 | 6.0 |

Table 4: Number of projects and employees

## Strategy Implementation Obstacles

The strategy implementation obstacles is based on eight dimensions which are purchasing, construction facilities, human resource, financial aspect, operation, management information system, sales and environment. The mean and standard deviation score for the eight dimensions are shown in Table 5 through Table 8.

The purchasing and construction facility dimensions are shown in Table 5. For the purchasing dimension the items with the three highest mean score are 'Late delivery of construction materials' (3.47), 'Incompetent suppliers' (3.30), and 'Lack of construction materials'(3.25). The three items with the lowest mean score are, 'Weak procurement procedures' (3.07), 'Poor quality construction materials' (3.02) and 'Imported building materials' (2.85). As for the construction facility dimension, the items with the three highest mean score are 'Lack of equipment' (3.42), 'Frequent breakdown of equipment' (3.33), and 'High maintenance cost of equipment' (3.22), while the three items with the lowest mean score are 'Lack of spare parts' (3.19), 'Difficulty to operate equipment' (3.16), and 'Lack of high technology equipment' (3.00).

| **Purchasing** | **Mean** | **Std Dev** |
|---|---|---|
| Late delivery of construction materials | 3.47 | 1.078 |
| Incompetent suppliers | 3.30 | 1.104 |
| Lack of construction materials | 3.25 | 1.142 |
| Price fluctuations | 3.23 | 1.137 |
| Weak procurement procedures | 3.07 | 1.017 |
| Poor quality construction materials | 3.02 | 1.033 |
| Imported building materials | 2.85 | 1.121 |
| **Construction Facility** | **Mean** | **Std Dev** |
| Lack of equipment | 3.41 | 1.042 |
| Frequent breakdown of equipment | 3.33 | 0.999 |
| High maintenance cost of equipment | 3.22 | 0.975 |
| Lack of spare parts | 3.19 | 0.971 |
| Difficulty to operate equipment | 3.16 | 0.946 |
| Lack of high technology equipment | 3.00 | 1.075 |

Table 5: Purchasing and Construction Facility Dimensions

Table 6 showed the human resource and financial aspects dimensions. The human resource dimension recorded the three highest mean score for the items, 'Lack of construction knowledge'

(3.74), 'Incompetent subcontractors' (3.73), and 'Shortage of workers' (3.61). The three lowest mean score are for items, 'Low workers' morale' (3.37), 'High absenteeism' (3.18), and 'Lack of supervisory knowledge among Department's engineers' (2.87). In terms of financial aspects the items with the three highest mean score are, 'Contracting firm experienced financial difficulties' (3.91), 'Late payment from contracting firm to suppliers' (3.82) and 'Inaccurate estimation of project cost' (3.44), while the last two items with the lowest mean score are, 'Delay in interim payment from Department' (2.77) and 'Department experienced financial problem' (2.54)

The mean and standard deviation score for the operation and management information system dimensions are shown in Table 7. The three highest mean for the human resource dimension were recorded for items, 'Incomplete design information'(3.38 ), 'Lack of site investigation ' (3.34 )and 'Feasibility was not carried out' (3.31) while the three items with lowest mean are, 'Inappropriate construction method' (3.23 ), 'Late site clearing' (3.17), and 'Outdated technology' (2.97). The management information system dimension recorded the three highest mean for items, 'Poor communication'(3.70), 'Slow feedback from contracting firms '(3.70 ) and 'Slow feedback from consulting firms' (3.62), and 'Variation orders from Department' (3.37). The remaining three items with the lowest mean are 'Slow decision from Department' (3.25), 'Micromanagement from Department' (3.19) and 'Slow feedback Department' (3.18)

| **Human Resource** | **Mean** | **Std Dev** |
|---|---|---|
| Lack of construction knowledge | 3.74 | 0.889 |
| Incompetent subcontractors | 3.73 | 0.854 |
| Shortage of workers | 3.61 | 1.001 |
| Ineffectual consultant | 3.43 | 0.998 |
| Low workers' morale | 3.37 | 0.964 |
| High absenteeism | 3.18 | 1.001 |
| Lack of supervisory knowledge among Department's engineers | 2.87 | 1.071 |
| **Financial Aspect** | **Mean** | **Std Dev** |
| Contracting firm experienced financial difficulties | 3.91 | 0.88 |
| Late payment from contracting firm to suppliers | 3.82 | 0.774 |
| Inaccurate estimation of project cost | 3.44 | 1.038 |
| Delay in interim payment from Department | 2.77 | 1.184 |
| Department experienced financial problem | 2.54 | 1.097 |

Table 6: Human Resource and Financial Aspect Dimensions

The mean and standard deviation score for the operation and management information system dimensions are shown in Table 7. The three highest mean for the human resource dimension

were recorded for items, 'Incomplete design information'(3.38 ), 'Lack of site investigation ' (3.34 )and 'Feasibility was not carried out' (3.31) while the three items with lowest mean are, 'Inappropriate construction method' (3.23 ), 'Late site clearing' (3.17), and 'Outdated technology' (2.97). The management information system dimension recorded the three highest mean for items, 'Poor communication'(3.70), 'Slow feedback from contracting firms '(3.70 ) and 'Slow feedback from consulting firms' (3.62), and 'Variation orders from Department' (3.37). The remaining three items with the lowest mean are 'Slow decision from Department' (3.25), 'Micromanagement from Department' (3.19) and 'Slow feedback Department' (3.18)

| **Operation** | **Mean** | **Std Dev** |
|---|---|---|
| Incomplete design information | 3.38 | 1.006 |
| Lack of site investigation | 3.34 | 1.053 |
| Feasibility was not carried out | 3.31 | 0.996 |
| Poor design | 3.24 | 1.006 |
| Inappropriate construction method | 3.23 | 1.031 |
| Late site clearing | 3.17 | 1.059 |
| Outdated technology | 2.97 | 1.013 |
| **Management Information System** | **Mean** | **Std Dev** |
| Poor communication | 3.70 | 0.922 |
| Slow feedback from contracting firms | 3.70 | 0.805 |
| Slow feedback from consulting firms | 3.62 | 0.876 |
| Variation orders from Department | 3.37 | 0.964 |
| Slow decision from Department | 3.25 | 1.042 |
| Micromanagement from Department | 3.19 | 0.999 |
| Slow feedback Department | 3.18 | 1.041 |

Table 7: Operation and Management Information System Dimensions

| **Sales** | **Mean** | **Std Dev** |
|---|---|---|
| Inaccurate contract period | 3.32 | 1.024 |
| Brief contract period | 3.20 | 1.03 |
| **Environment** | **Mean** | **Std Dev** |
| Problem with local populace | 3.90 | 0.735 |
| Unexpected weather condition | 3.80 | 0.814 |
| Unexpected site conditions | 3.76 | 0.901 |
| Unexpected ground conditions | 3.76 | 0.83 |
| Inflation | 3.41 | 0.91 |
| Conflict | 2.86 | 1.149 |

Table 8: Sales and Environment Dimensions

The sales and environment dimensions are shown in Table 8. The sales dimension consisted of two items which are 'Inaccurate contract period' and 'Brief contract period' with mean of (3.32) (3.20) respectively. The environment dimension comprised six items in which the three highest mean recorded are for items; 'Problem with local populace' (3.9), 'Unexpected weather condition' (3.8), 'Unexpected site conditions' (3.76) and 'Unexpected ground conditions' (3.76) while the two remaining items with lowest mean score are 'Inflation' (3.41) and 'Conflict' (2.86).

The aggregate mean score for all of the dimensions is shown in Table 9. As shown in the Table the three dimensions with the highest mean score are environment (3.58), management information system (3.43) and human resource (3.41). The three problem dimensions with the lowest mean score are operation (3.26), construction facility (), and purchasing (3.21).

| **Strategy Implementation Obstacle** | **Mean** | **Std Dev** |
|---|---|---|
| Environment | 3.58 | 0.89 |
| Management Information System | 3.43 | 0.95 |
| Human Resource | 3.41 | 0.97 |
| Financial Aspect | 3.29 | .99 |
| Sales | 3.26 | 1.03 |
| Operation | 3.23 | 1.02 |
| Construction Facility | 3.21 | 1.00 |
| Purchasing | 3.17 | 1.09 |

Table 9: Aggregate Mean Score For All Of The Obstacles

## DISCUSSION AND CONCLUSION

The main objective of this study is to identify the various strategy implementation obstacles that are generally encountered by contracting firms with problem construction projects. The results of the study suggest that the obstacles can be viewed along eight strategy implementation dimensions which are purchasing, construction facility, human resource, finance, operations, management information system, sales, and environment.. The results of the study also indicate that the three most serious obstacle that have to be dealt with when implementing trouble projects are those pertaining to the environment, management information systems, and human resource. This is followed by two other obstacles pertaining to finance and sales. The three somewhat least serious problems are those pertaining to purchasing, construction facility, and operations.

The results of the study suggest that problems related to the environment dimension are most serious. This is not surprising as many studies in strategic management characterized the environment as complex and unpredictable. Unpredictable changes in the various elements of the environment such as attitude of local populace, inflation rate, physical and site conditions can have impact on implementation. The findings from other studies too such as those by Taslak (2004) and Ali and Hadi (2012) indicate that environmental factors are one of the crucial obstacles to effective strategy implementation.

The second most challenging obstacle consists of those problems under management information system dimension. According to Al Ghamdi (1998), a good management information system allows for information sharing that provides adequate information for effective implementation decision while on the other hand a poor management information system such as withholding of information can only result in poor coordination. Hrebiniak (2006) and Ali and Hadi (2012) observed that firms need to give greater attention to their management of information systems as it can work to the detriment of a firm if it is not properly managed. In the study some of the management information system problems include poor communication, slow feedback obtained from contracting firms, consultants, and variation orders from the Department.

The third serious obstacle comprises the human resource dimension. More specifically, the results of the study indicate that technical competencies and knowledge of the contracting firm workers and their sub-contractors workers are rather lacking. Eisenhardt (1993) study's also reveals that poor training and insufficient competencies are obstacles to implementation. The studies by Miller, Wilson, and Hickson (2004) and Ali and Hadi (2012) also reveal that human resource particularly competencies and skill of the employees is another dimension which can be an obstacle to successful implementation

The next category of obstacle consists of financial problems. The studies by Abd. El Razak, Bassioni & Mobarak (2008), Al-Khalil & Al-Ghafly, (1999) also reveal that financial issues can also act as obstacles to strategy implementation. There are several ways in which financial matters can affect strategy implementation. In this study financial problems can be in the form of financial shortage, making late payments to subcontractors, inaccurate project costing and late progress payment made to the contractor.

In the study the sales dimension mostly involves the time management of the sales contract or the tenor of the sales contract. The contract period can be a problem when it does not provide enough time for the contractor to complete the project. Another way contract period may affect implementation is when the contract period awarded is deemed too short. This does not allow the project to be completed within the specified time frame.

Obstacles arising from operation, construction facility, and purchasing dimension seem to be less critical to strategy implementation as compared to the earlier dimensions. Nevertheless they can still adversely affect strategy implementation. In this study firms with operational obstacles tend to experience problems such as poor design, outdated technology, inappropriate construction method, lack of site investigation and insufficient feasibility study. The operation aspect is another factor that can pose as problem to strategy implementation as noted by studies such as Long (2004) and Al Khalil (1999).

Another dimension that can be an obstacle to successful strategy implementation is the construction facility employed by the firms. There are a number of ways in which the construction facility can be obstacles to strategy implementation among them such as frequent breakdown, high maintenance cost, and shortage of spare parts. Other studies such as those by Ibnu Abbas (2006) and Abd. El Razak, Bassioni & Mobarak (2008), show that the construction facility is among the factors that can affect implementation.

The least serious obstacle to strategy implementation for the contracting firms in the study is purchasing. As in a number of other studies such as Ibnu Abbas (2006) and Chan, Scott, and Chan (2004), this study identifies that purchasing can be an obstacle to successful implementation. This is especially so when the project experience substandard quality of supplies, late delivery and shortage of supplies, price fluctuation, and incompetent suppliers. Nevertheless in this study the contracting firms that are implementing the project seem able to manage the purchasing dimension than other implementation dimensions.

**Conclusion**

In general the study reveals the presence of various strategy implementation obstacles in most of the problem construction project. In this study the obstacles are broken down into eight dimensions which are purchasing, construction equipment, human resource, finance, operations, management information system, sales, and environment. The three most challenging obstacles are those pertaining to the environment, management information systems, and human resource. On the other hand the three obstacles that pose less serious threats to the firms are operation, construction facility, and purchasing. Most of the obstacles identified in the study are in line with those obstacles which are identified in earlier studies.

The study also point out to some valuable messages for those who are directly responsible for implementing government projects such as consultants, project managers, government officers, and contractors. Those involved should always be on the alert on the threat and challenges that can develop from the various obstacles. As this study show, greater attention should be given to the three serious obstacles. Attention should be given on environmental changes, level of competencies required to complete a project and finally, the free flow and amount of information needed to make decision. A proactive approach on the part of those involved in implementing strategy or project could reduce the risk of the obstacles becoming a much bigger threat.

**REFERENCE**

Abd El-Razek, M.E., & Bassioni, H. A., & Mobarak, A. M. (2008). Causes of delay in building construction projects in Egypt. *Journal of Construction Engineering and Management*, 134(11), 831-841.

Al-Ghamdi, S.M. (1990). Obstacles to successful implementation of strategic decisions: the British experience, *European Business Review*, 98, 6, 322-328.

Al-Khalil, M., & Al-Ghafly, M. (1999). Important causes of delay in public utility projects in Saudi Arabia. *Construction Management and Economics*, 17(5), 647–655.

Ali, M. and Hadi, A. (2012). Surveying and identifying the factors affecting successful implementation of business strategies in companies of Fars Province industrial towns, *International Journal of Business and Social Science*, 3,1, January, 265-272.

Abu Bakar, A.H., Tufail, M.A., Yusof, M.N., and Virgiyanti, W. (2011). Implementation of Strategic Management Practices in the Malaysian Construction Industry, *Pakistan Journal of Commerce and Social Science*, 5,1,140-154.

Al-Ghamdi, Salem M. (1998). Obstacles to successful implementation of strategic decisions: the British experience, *European Business Review*, 98, 6; 322-337.

Aaltonen, P. and Ikavalko, H. (2002). *Implementing strategies successfully*, Integrated ` Manufacturing Systems, 13,6, 415 – 418.

Ansoff, H.I. (1987), The emerging paradigm of strategic behavior, *Strategic Management Journal*, 8, 501-515.

Beer, M., Eisentat, R.A. and Spector, B. (1990), "Why change programs don't produce change", *Harvard Business Review*, November-December, pp.158-66..

Bossidy, L. and Charan, R. (2002). *The discipline of getting things done*, Crown Business, New York, NY.

Bushardt, S.C., Glascoff, D.W., and Doty, D.H. (2011). Organizational culture, formal reward structure and effective strategy implementation: A conceptual model, *Journal of Organizational Culture, Communications and Conflict*, 15,2, 57-70.

Brauer, M. And Schmidt, S.L. (2008). Defining the strategic role of boards and measuring board's effectiveness in strategy implementation, *Corporate Governance*, 8,5, 649-660.

Brenes, E.R., Mena,M. and Molina, G.E. (2008). Key success factors for strategy implementation in Latin America, *Journal of Business Research*, 61, 590-598.

Burgelman, R.A. (1983), A model of interaction of strategic behavior, corporate context, and the context of strategy. Academy of Management Review, 8,1, 61-70.

Carpenter, M.A. and Sanders, W.G. (2007). Strategic management: A dynamic perspective, Pearson Education, Inc, New Jersey.

Cater, T. And Pucko, D. (2010). Factors of effective strategy implementation: Empirical evidence from Slovanian business practice, *Journal of East European Management Studies,* 15,3,207-230

Chan, A.P.C., Scott, D. and Chan, A.P.L . (2004). Factors affecting the success of a construction project. *Journal of Construction Engineering and Management*, 130, 153-155.

Cocks, G. (2010). Emerging concepts for implementing strategy, *The TQM Journal*, 22,3, 260-266.

Cyert, R. And March, J. (1963). A behavioral theory of the firm, Prentice-Hall, Englewoods Cliffs, NJ.

David, F.R.(2013). *Strategic management: concepts and cases (14th ed.).* New Jersey: Prentice Hall.

Hrebiniak, L.G., and Joyce, W. F. (2001). Implementing strategy: An appraisal and agenda for future research. In Michael A. Hitt, R. Edward Freeman, and Jeffrey S. Harrison (Eds.), *The Blackwell Handbook of Strategic Management* (603-626), United Kingdom: Blackwell Publishers Ltd.

Hrebiniak, L.G. (2005). *Making strategy work: Leading effective execution and change*, Pearson Education Inc, New Jersey.

Hrebiniak, L.G. (2006). Obstacles to effective strategy implementation, *Organizational Dynamics*, 35,1, 12-31.

Hussey, D. (1999). *Strategy and planning: A manager's guide*. Chichester: John Wiley & Sons, Ltd.

Ibnu Abas, Majid. (2006). *Causes and effects of delays in Aceh construction industry.* Unpublished master's thesis. Universiti Teknologi Malaysia, Johor .

Judson, A.S. (1991). Invest in a high-yield strategic plan, Journal of Business Strategy, 12, 4, 34-39.

Kazmi, A. (2008). A proposed framework for strategy implementation in the Indian context, *Management Decision*, 46, 10, 1564-1581.

Long, N. D. (2004). The delay of large construction projects in developing countries: A case study from Vietnam. *International Journal of Project Management*, vol 22 (7), 553-561.

Mankins, M. and Steele, R. (2005), "Turning great strategy into great performance", *Harvard Business Review*, 83,7/8, 65-72.

Miller, D. (2002), "Successful change leaders: what makes them? What do they do that is different?", *Journal of Change Management*, 2, 4, 359-68.

Miller, S., Wilson, D. and Hickson, D. (2004). Beyond planning strategies for successfully implementing strategic decisions, *Long Range Planning*, 37, 201-208.

Mintzberg, H. (1978), Patterns of strategy formation, *Management Science*, 24,9, 934-948.

Pettigrew, A., Thomas, H. and Whittington, R. (2002). *Strategic management: The strengths and limitations of a field*. Handbook of Strategy and Management. London: Sage publications.

Schein, E.H. (1992). *Organizational culture and leadership (2nd ed.)*, San Francisco: Jossey-Bass Publishers

Speculand, R. (2009). *Beyond strategy: The leader's role in successful implementation*. John Wiley and Sons; Singapore.

Wheelen, T.L. and Hunger J.D. (2012). *Strategic management and business policy* (13th ed.). Pearson Education Inc: United States of America.

Li, Y, Guohui, S. and, Eppler, J.M. (2008). Making Strategy Work: A Literature Review on the Factors influencing Strategy Implementation, ICA Working Paper 2/2008 http://www.knowledge-communication.org/pdf/making-strategy-work.pdf

Waweru, M.A.S. (2011). Comparative analysis of competitive strategy implementation, *Journal of Management and Strategy*, 2,3, 49-61.

Zahra, S.A. (1990). Increasing the board's involvement in strategy. *Long Range Planning*,23,6, 109-117