Cost Management

----A case study of a gardening firm project

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Abstract

**Purpose:** The purpose of this research is to analyze how a small gardening company can reduce the cost of implementation of a project, through the usage of a Cost Management (CM) framework.

**Method:** The research uses an inductive approach built on qualitative data that is gathered through the following means: unstructured interviews; direct observations and documentaries. The CM framework is applied to analyze the costs of the project that are used by the company. The data is analyzed by using SWOT analysis approach.

**Results & Conclusions:**

This study shows that a small gardening company can reduce the cost of implementing a project by using the CM framework. Through this thesis, the authors summarize several suggestions as reference for small companies to perform the future projects. In order to avoid severe cost burden lead to the crisis of future development, the small gardening company needs to apply the effective cost management system to control cost. Moreover, an effective and reasonable cost management system needs the support of the top management commitment, the workers involvement and a self-perpetuating system. The CM framework will not only help small companies control costs of projects, but also ensure quality of projects so that small companies can enhance their core competitiveness and set up own brand in the future.

**Contribution of the thesis:** The thesis shows that several costs can be optimized or avoided when implement a project. From the case study and the authors’ analysis, small companies should pay more attention to the cost control to improve efficiency and profit.

**Key words:** project management, cost management system, gardening industry, agency
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1 Introduction

1.1 Background

Project management is about how to apply a large numbers of resources to accomplish a unique, complex, one-time task within time, cost and quality constraints.1 Nowadays, people pay more attention on project management cost control in the world. Because of the increase of project failure making cost management control becoming one of the most important issues for companies to handle to improve business performance.2 Big companies have resources, like well trained employees, high class equipment and advanced techniques, to manage and control the costs of their projects. However, small companies, commonly lack resources or are less aware of how to handle cost control when performing a project. Being part of a project, even though a small company is supported by one or several big companies sometimes, there still are pressure on them to handle its own costs when participating in a bigger project. This thesis study the need of cost management control in a small company by showing how a small gardening company engaged in a big gardening project in China, and handle cost challenges in its relationship with a big gardening company.

The gardening and outdoor living market in China is very important and mainly includes garden buildings, garden tools, garden utensils, outdoor living, plant, shrub, and growing media.3 Mainly because of the ambition of environmental and ecology protection, nowadays gardening as a field is accepted by more and more people so that gardening industry attracts more attention as a business. In China, many local governments have set up policies and gardening exposition to support the development of gardening industry, especially in some developed cities such as Kunming, Shenyang Xian and Shenzhen.4 With the rapid development of gardening industry in China in the last thirty years of reform and opening-up, gardening industry is not only becoming one of the important industries of socialist modernization in China, but also playing an increasingly important role for the business sector as a whole.

The increasing competition on the gardening market, however, makes the profit become lower which means that the leading gardening companies do not want to pay too much attention on small projects. Commonly the leading companies prefer to sign a contact with a small company and let them implements the small project after they got the project from the tender. This phenomenon is quite popular in China in which

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1 Atkinson, 1999, p. 337
2 Richman, 2002, pp. 10-11
3 Gardening & Outdoor Living Market Overview in China, 2012,  
4 Backgrounder: A review of major international gardening expos in China,2011,  
the small company works as an "agent" in relationship to the big company.  

In this thesis, this situation is illustrated by SiJiQing Gardening Company who represents the principle while LvYu Gardening Company has the agent role. In order to ensure the quality of the project and to get more business possibilities, SiJiQing Gardening Company is also playing the role of wholesaler, as the company is selling products to LvYu Gardening Company. Moreover, SiJiQing Gardening Company provides the technical and quality support as well, like renting machines and providing professional designer to help LvYu Gardening Company to accomplish the project with good quality. For LvYu Gardening Company, as a small company, to enter the market and establish an own good image to future customer needs is very important. In adopting this collaborative strategy, LvYu Gardening Company has to pay the “agency” cost at the beginning. In addition, project lagging behind and lack of experience of controlling costs are risks that can move a small company into a drastic situation. In other words, cost management is a challenging issue for small gardening companies who want to enter a new market by engaging into a big project.

1.2 Purpose, Research Questions and Limitation of the Study

The purpose of this research is to analyze how a small gardening company can reduce the cost of implementation of a project, through the usage of a Cost Management (CM) framework.

The main research questions are as follows:
1. How can the leader of a small gardening company use cost management concept to improve its project performance?
2. How can a small gardening company control indirect costs in project implementations?
3. How can project managers of a small gardening company improve the quality of work and simultaneously keep the costs at acceptable level?

In this thesis, the authors had done a case study on a gardening project. But the thesis is limited because the authors just focus on one project and the effect of the CM framework. Nevertheless, the case study shows how LvYu Gardening Co. LTD. and Sijiqing Gardening Co. LTD work together.

1.3 Contribution

The contribution of this study is to show the requirements of cost control for a company engaged in gardening industry project in China. The experience from the gardening industry can be used by other small companies in similar situation, which might help them to avoid the increase of cost. Furthermore, the findings could help

5 Whipple and Roh, 2010, p. 342
them understand of the need of training and reward systems for employees, as well as collaboration and brand building work for managers.

1.4 Outline of the Study

The study is presented in six chapters, Chapter 1 Introduction discuss the background, aim and research questions of the investigation along with the delimitations of the study. Chapter 2 Theoretical Framework, they discussed relative literature review and the theoretical framework in this part. After the Theoretical Framework they presented the chapter 3 Method, they illustrate how the authors proceed to answer the research questions. Chapter 4 Case Study presented the information collected during the investigation. The theories together with the data of case study collected are examined and show in chapter 5 Analysis. Chapter 6 Discussions/Conclusions present the final points of the study and give some advises.
2 Theoretical Framework

Chapter 2 contains the theoretical framework which is presented in six separate sections. Project management is discussed in the first section, and then the authors narrowed the project management discussion to include cost management. The cost management involves theories of principle-agency dilemma, team work, and project leadership. In addition, as the case relates to the Chinese agency law and contract law these laws are included in the theoretical framework as well.

2.1 Project management

Projects exist everywhere, in each scope of business, market and industry. Projects not only come in different types and sizes, but also differ in complexity. Small projects such as parties, celebrations and weddings; medium-size projects such as information systems, advertising campaigns, restructuring and capital acquisitions; and mega-projects such as the Channel Tunnel, the Great Wall and NASA space station are examples of different project content and scope.6

Project management is commonly defined as the process of accomplishing a certain task. In order to achieve the goal of the project certain tools and techniques (such as CPM and matrix organization) could be used.7 Considering the project task, this is usually viewed as having the features of being unique, complicated and has to be completed during certain time scale, within the control of time, cost and quality and need to be supervised closely so the result should be optimized.8

Nowadays, and according to PMBOK,9 project management can be described as constituted by nine knowledge management areas which are as following:

1. Project integration management relates to the processes which coordinate all kind of elements of a project to make sure that the project is running well. This management includes how to work with project plan development, project plan execution and integrated change control.

2. Project scope management includes what need to be done within the project to be completed. This management covers how to work with initiation of the project, scope planning, scope definition, scope verification and scope change control.

3. Project time management means the decisions and actions that are required to make sure that the project is moving on as it should in time. Management work includes activity definition, activity sequencing, activity duration estimating, schedule development and schedule control.

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6 Enzo and Dennis, 2002, p. 9
7 Atkinson, 1999, p. 337
8 Ibid, p. 337
9 Ibid, p. 337
6 Enzo and Dennis, 2002, pp. 36-52
4. Project cost management refers to how and if the project moves on within the approved budget. This management is about to make sure that the project can be accomplished successfully, such as how to work with resource planning, cost estimating, cost budgeting and cost control.

5. Project quality management refers to how to make sure that the customers will be satisfied with the project outcome when it is done. It includes quality planning, quality assurance and quality control.

6. Project human resource management concerns how to manage and use the people that work in the project to make sure this is done in the most effective way. This management covers organization planning, staff acquisition and team development.

7. Project communication management concerns all processes that are required to make sure that the information of a project can be generated, collected, disseminated, storage, and final disposition is timely and appropriately. This management entails communication planning, information distribution, performance reporting and administrative closure.

8. Project risk management refers to the need to identify, analyze and respond to project risks and covers risk management planning, risk identification, qualitative risk analysis, quantitative risk analysis, risk response planning and risk monitoring and control.

9. Project procurement management concerns how to complete the project. Some goods and services could for instance be bought from other organizations, such as procurement planning, solicitation planning, solicitation, source selection, contract administration and contract closeout.

In the next text sessions some vital parts included in cost management are presented.

2.2 Cost management

For a project, cost management is an extremely important element of project management to run it successfully. The management of costs is commonly reflected in company’s strategic goals, mission statements and business plans of a project organization in many ways.10

There are three main functions to support companies’ cost system performance. First, financial reporting function which is the system that present production expenses in reports covering each period of interest such as cost of goods sold and in inventory. Secondly, cost system can give the employees and operators economic

10 Pinto, 2010, pp.250-251
feedback, such as process efficiency and expense control. Finally, according to cost information, companies can estimate the costs of products, services, activities and customers for better control.\textsuperscript{11}

### 2.2.1 Direct costs and indirect costs

Costs can be divided into two main types: direct costs and indirect costs.

1. Direct costs

Direct costs are directly generated by the project.\textsuperscript{12} The cost of labor and materials could be the best examples of direct costs. Generally, labor costs are viewed as direct cost because of its relevance to the workers who actually are involved in the project. However, some labor costs might not be considered as direct costs for the project such as the costs of support personnel. For example, the costs of accountant or consultants that come from other organizations may not be allocated directly and integrated as a part of the project, especially when their duties are servicing or monitoring something that could be seen as extra in some sense.\textsuperscript{13}

To a project, the direct cost of materials is easy to calculate, as long as the types of material required to accomplish the project are known. For instance, the direct costs of building a library or holding a party for 100 people can be estimated with fair accuracy, meaning these costs can be pinpointed in the project directly in a systematic way.

Historically, to some industries like manufacturing, the costs of two resources were applied to projects directly and those were material costs and labor costs. There are some reasons why these resources were assigned directly. First of all, these kinds of costs accounted for a great number of the costs of the final product. Second, the perspective of scientific management movement believed that making the usage and consumption of these expensive resources under control was seen as very important. Finally, it was easy to measure the consumption of these kinds of resources by each product. These three characteristics can justified the measurement costs for estimating how much materials and how much labor will be spent on each product.\textsuperscript{14}

2. Indirect cost

Indirect costs are generally linked to two features, overhead cost and selling and general administration cost.\textsuperscript{15} The former refers to all sources of indirect materials, utilities, taxes, insurances, properties and repairs, depreciation on equipment, and health and retirement benefits for the labor force. They could be quite complicated to estimate as the costs could derive from different projects and different works within a company. Selling and general administration costs usually refer to advertising,
shipping, salaries, sales and secretarial support, sales commissions and similar costs. Tracking and relating these costs to projects is not nearly as forthright compared with the direct costs, so the procedures applied are different from organization to organization. Measurement approaches could include flat rate (such as a percentage multiplier from 20% to over 50% on top of direct costs) which is a way to estimate the cost relative to the direct costs of a project framed as overhead costs, or a project-by-project-basis-measurement which is based on individual analysis.\(^{16}\)

### 2.2.2 Elements of cost management

Normally, there are additional sources of project costs which include:\(^{17}\)

1. Labor. Labor costs are those related to hiring and paying all personnel that the project team needs in developing the project. These costs can be complex as a project requires many personnel to undertake the project in different parts and periods so human resource department need to have the cost of labor under control and reduced as much as possible.
2. Materials. Material costs are associated with what the project needs to perform in order to complete the tasks in different periods of time. For a gardening project, as in the present case, trees and flowers are what a project team needs to consider in their work and hence, becomes one of the most important elements in the project.
3. Subcontractors. Subcontractor costs have to be accounted into the preliminary cost estimate and be reflected in the budget and especially when subcontractors provide the project with resources. For instance, one subcontractor cost might be for the costs for a designer to create an attractive product packaging, for example cosmetic packaging, food packaging and bottles.
4. Equipment and facilities. The rental of equipment or facilities becomes a charge needing special consideration in a project.
5. Travel. Travel costs are the expenses that relate to business travel such as airfare, hotels and meals which should be considered as a cost within a project.

### 2.2.3 Cost management system

The main purpose of the cost management system is to maximize profits. In order to maximize profits, the company has to face and succeed competitions that come from either domestic or international companies, and to develop themselves continually. In a nutshell, the two primary objectives to provide a cost management system are global competition and continuous improvement.\(^{18}\)

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\(^{16}\) Ibid, p.251
\(^{17}\) Ibid, p. 250
\(^{18}\) Agrawal, Mehra and Siegel, 1998, p. 60
As illustrated in figure 1, a cost management system needs: support and commitment from senior management; the workers involvement in different positions; and a self-perpetuating system of improvement which might help the company to improve value added activities and decrease non-value added activities.

1. The Self-Perpetuating System of Improvement (SPSI)

Figure2 presents a model of a Self-Perpetuating System of Improvement, which indicates that two goals are required to improve value added activities and to decrease non-value added activities. In order to achieve the goals, the model of SPSI may start with Activity Based Costing, a comprehensive system that includes: Activity-Based Management, Total Quality Management, Just-in-Time System and Process Improvement.

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19 Ibid, p.61
20 Ibid, p.63
21 Ibid, p.62
22 Here after known as “SPSI”
Value added activities are considered as something that can add value to products in order to satisfy what the customer needs. Some activities can, however, be considered as non-value added even though these might be essential to a company such as training. Companies have to train their workers to be more efficient and effective. Without doubt, the training activity is not related to the products to improve consistent quality that are expected by the customer all the time. So the training activity can be treated as non-value added per se although essential for the outcome of the project.

2. SPSI-Activity Based Costing

Activity-Based Costing\textsuperscript{23} is developed from the traditional cost system to improve the accuracy of collecting cost data.\textsuperscript{24} Research on ABC and its applications has been focused on the organizations in developed countries mainly, only little has been implemented successfully in the organizations in developing countries.\textsuperscript{25} ABC not only measures the cost and performance of activities, resources and cost objects, but also points out the causal relationship between cost drivers and activities. Even though the ABC system is functional, it should not be considered as an ending process. It should be clarified, that information developed and data collected when adopting the ABC system must be used to reach the goals of SPSI, as discussed above. There are some important techniques such as: Activity Based Management, Total Quality Management, Just-in-Time System and Process Improvement that could be used and are presented below.\textsuperscript{26}

- **Activity Based Management**\textsuperscript{27}

  ABM use the information developed in the project and data are collected under an ABC system, which is a system that is used to accurately determine the full costs of services and products.\textsuperscript{28} ABM pays attention to the value-added from customers and the profit of the company gained by providing such value-added activity. According to Agrawal, Mehra and Siegel, an ABM system can help to fulfill what the manager needs to get dynamic information in areas such as:\textsuperscript{29}
  A. Managing and motivating cost improvement.  
  B. Improving organizational learning.  
  C. Supporting cost-based operational decisions.

- **Just-in-Time System**\textsuperscript{30}

  The aims of JIT are to eliminate waste and improve the flow of materials so that value is added by the transformation process. Once JIT is achieved, it can help the

\textsuperscript{23} Here after, known as “ABC”  
\textsuperscript{24} Tsai and Li, 1996, p. 725  
\textsuperscript{25} Liu and Pan, 2007, p. 249  
\textsuperscript{26} Agrawal, Mehra and Siegel, 1998, p. 64  
\textsuperscript{27} Here after, known as “ABM”  
\textsuperscript{28} Trussel and Bitner, 1998, p. 441  
\textsuperscript{29} Agrawal, Mehra and Siegel, 1998, pp. 64-65 with reference to Reeves, 1996, pp. 5  
\textsuperscript{30} Here after, known as “JIT”
company to reduce cost, improve quality and to become more flexible in decisions.\textsuperscript{31} Under JIT, it is necessary that the suppliers can deliver the right material of the right quality in a right quantity through a right way. This not only requires a long-term relationship with a supplier, but additionally needs some supporting techniques e.g. electronic data interchange. Moreover, the company can provide training activities for its employees to perform multiple tasks, e.g. how to use, maintain and repair the equipment.\textsuperscript{32} By doing so, this can help the company to improve its production efficiency and save costs.

- **Total Quality Management\textsuperscript{33}**
  
  The aim of TQM is to identify and reduce the costs that are related to the quality of products or services, which could occupy significant percentage of the total costs that a company normally has. It is impossible to eliminate these costs because they are affected by the total quality. Some costs may be reduced but may also be increased elsewhere.\textsuperscript{34} The costs of quality can be classified into four types.\textsuperscript{35}

  A. Prevention costs. Costs of activities performed to prevent errors from occurring.
  B. Appraisal costs. Cost of inspection, like determining if the product conforms to standards.
  C. Internal failure costs. The costs of correcting errors before the product reach the final customer, such as rework and change orders.
  D. External failure costs. Cost associated with errors that reach the final customers, such as handling complaints and correcting errors.

  In America, the main trend of business is focusing on the continuous improvement of quality, such as quality products, quality systems and quality improvements. "Improve quality, and all else will follow" has been summarized as the attitude of the world-class company.\textsuperscript{36} When TQM is used by a company, it may increase prevention and appraisal costs at the beginning. However, it will help the company to reduce and eliminate internal and external failure costs due to improvements towards high quality performance. Setting up a system of preventing goods of bad quality can help the company to reduce and eliminate appraisal costs as well. Generally, quality related costs are very difficult to recognize by companies, ABC provides considerable help to make companies aware of such costs. TQM provides significant help for companies to reduce their non-value added activities and improve value added activities.\textsuperscript{37}

- **Process Improvement**
  
  Process improvement means measures that emphasize incremental improvement in

\textsuperscript{31} Waters-Fuller, 1995, p. 220
\textsuperscript{32} Agrawal, Mehra and Siegel, 1998, p.67, with reference to Barton, Agrawal and Rockwell, 1992, p. 49
\textsuperscript{33} Here after, known as "TQM"
\textsuperscript{34} Agrawal, Mehra and Siegel, 1998, p. 68
\textsuperscript{35} Gupta and Galloway, 2003, p.135
\textsuperscript{36} Ibid, p. 135
\textsuperscript{37} Agrawal, Mehra and Siegel, 1998, p. 67
processes of working and outputs over a time period.  

38 Process improvement starts with the identification of every process that is implemented by a company, which relates to various activities and cut across functional lines. A process map may help a company to reduce non-value added activities and improve value added activities. Process improvement is the way that can add some value to existing processes when processes are under test or to be improved. Some examples are improvement in communication, elimination of some unnecessary works and reduction in many approvals needed. Furthermore, time is not only an important element in the value chain, but also considered to be a competitive element by companies.

3. SPSI-Commitment of Top Management

The SPSI system cannot be set up without any active support of top management of a company which implies that the commitment of Top Management can be considered as a prerequisite to implement a strategy successfully.

![Diagram of Top Management Commitment](image)

Figure 3. Commitment of Top Management

As Figure 3 illustrates the Commitment of Top Management is necessary for continuous improvement. It is required to set up a team with members that consist of different departments of a company which can suggest, or process, new ideas of changes that are made inside the company when the company strategically is implementing a new project.

Commitment to customer orientation in Figure 3 is related to customer service and covers what the customers’ need to be realized by the leaders of the company. Anticipating what the customers need in the future is a very important point to make companies to be successful and could be pervaded by the corporate culture. Companies commonly divide customers into different segments, e.g. age and sex, and decide which segments is the target market or the most valuable markets. Customer commitment is important requiring that the company devote extra attention to their marketing programs and how this is followed up in a right way. On the other hand, changes of what the customers need must also be considered and guide the companies’ marketing orientation program. This means that customer cannot only be treated as an external party that pays for the goods or services of a company, but also

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38 Yair, 2011, p. 53

39 Agrawal, Mehra and Siegel, 1998, p. 69
be seen as a user of goods or services in the companies’ internal programs and as a part of providing goods or services.

Strategic planning in Figure 3 relates to three considerations.
A. Commitment of resources for setting up a SPSI system
B. Competitive strategies of the company. The companies should realize what their competitive advantages are and come up with strategies on what foundations they will compete on in relation to others such as prices or products. For different segments, companies need to have their own attitudes to maximize profit.
C. Capital budgeting. It provides a direction of long-term development to the company.

Worker involvement refers to using maximum efforts of all the workers of a company to solve problems. In other words, the aim of worker involvement is to get ideas, creativity and energy from the workers of a company to solve problem and for continual improvement. It is really important to have active worker involvement at all levels when implementing a SPSI system.

![Figure 4. Worker Involvement](image)

As figure 4 shows there are several techniques that could be used to improve worker motivation which concerns all workers at all levels of the organization and consist of:
1. The empowerment of individuals and teams is necessary to create motivation for the work. Many companies found that it is beneficial for companies to set up worker teams. Workers or a team should be empowered by top management, like stopping the production lines when there are some difficulties happening due to safety.
2. Performance measurement is a technique that can be divided into either financial or non-financial measures carried out at an operation level in a real world project.
3. Benchmarking is a quite different standard from traditional business setting. An effective manager could consider many factors when benchmarking operations such as identifying:
   A. The costs relative to the competition;
   B. The lowest cost of equipment in place;
   C. The best cost of new equipment.
4. The reward system has to be linked with performance measures of workers.

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40 Ibid, p.71
5. Education and training consist of three elements, which could be supported by education and training programs.
A. Awareness training should be accepted by workers at all levels - from senior management to workers.
B. Educate not only project teams, but also their leaders.
C. Provides specialist training to workers who carry out a special function within the individual project.

2.3 Agency theory

Civil law of the people’s republic of China shows that citizens and legal persons can use civil juristic acts through agents. An agent shall use the civil juristic acts in the principal's name within the scope of the power of agency. The principal shall bear civil liability for the agent's acts of agency. "Civil juristic acts that should be performed by the principal himself, pursuant to legal provisions or the agreement between the two parties, shall not be entrusted to an agent."\(^{41}\)

Agency theory could be used to analyze the relationship between the principal and the agent: the principal, who gives the work to the agent, and the agent, who implement the work for the principal.\(^{42}\) The foundation of agency theory is the presupposition that the interests of principles and agents differ. According to agency theory, the principal can limit the divergence from the other’s interests by establishing appropriate incentives for the agent, and by incurring monitoring costs designed to limit opportunistic action by the agent. Besides, it may pay the agent to spend resources (bonding costs) to make sure that other will not take certain actions. It would do harm to the principal or to ensure that the principal will be appropriately compensated if other does take such action. "That is, the agent may incur ex-ante bonding costs in order to get the right to manage the resources of the principal. In spite of these devices, it is recognized that some divergence between the agent's actions and the principal's interests may remain."\(^{43}\) Actually, as this divergence reduces the principals’ welfare insofar, it can be viewed as a residual loss.\(^{44}\)

The key point of agency theory is to test contracting problems. How to decide the type of the most efficient contract and how it will affect the satisfaction of govern in agency relationship. The following formula shows that a principal and an agent could have contract problems when two factors co-exist:

\[
\text{Agency problem} = \text{Goal conflict} + \text{Information asymmetry}
\]

Because of potential opportunism in the relationship, these two factors (Goal conflict and Information asymmetry) engender a contractual problem, which is named moral hazard, shirking, or hidden action in agency theory. If the agent is mainly concerned to reach self-interest goals these could go against the principal’s goals.


\(^{42}\) Jensen and Meckling, 1976, p. 5

\(^{43}\) Hill and Jones, 1992, p. 132

\(^{44}\) Whipple and Roh, 2010, pp. 342-343
Moreover, the agent also can give the principle some irrelevant information so that the principal cannot verify whether the agent has implemented the committed work. In other words when the agent hides or cheat about important information, a contractual agency problem could exist. The principal have two basic ways to deal with the agency problem when it exists: one is to reduce or eliminate the goal conflict; the other one is to reduce or eliminate information asymmetry.45

According to this trade off, it can be as an efficiency criterion that both the principals and agents look for the most efficient type of contract.46

2.4 Project Team work & Leadership

In order to achieve the goals of a project, some project managers not only try to develop a particular leadership style, but also exam teamwork to improve teamwork success. However, the benefits of leadership behaviors can be considered as intangible what has slow down or prevent the implementation of leadership work. So, the influence of leadership behaviors has been one of the main issues on project performance for both industry and academic fields.47

2.4.1 Project Teamwork

With the development of society, multi-national relationships become more complex and the environment of technology more sophisticated, it has been increasingly important to highlight the importance of building up project team efficiency and design.48 The roles and boundaries of teams have been transferred to more self-direction for handling more open and organizationally transparent processes, with the support of modern information and communication technologies. Work teams play a key role not only in traditional projects but also for instance for new product development, systems design and construction, but also in implementing organizational change, transferring technology concepts and in running election campaigns.49

Teamwork in a company is commonly organized and structured. A team comprises of a leader and other roles, objectives, accountability, schedules, deadlines and other characteristics of task forces. And teams can be distinguishing into different types, such as management teams, project teams, committees and quality teams.50

45 Ibid, pp. 342-343
47 Yang, Huang and Wu, 2011, p. 258
48 Thamhain, 2004, p. 534 with reference to Nurick and Thamhain 1993,chapter 38
49 Ibid, p. 534
50 Nurmi, 1996, p. 10
2.4.2 Project Leadership

Project leadership is widely considered to be an important part to improve project control. Leadership is commonly seen as the ability to influence groups for purposes of target accomplishments. Concerning the factors which may have great influence on leadership skills the emotional intelligence may be one of the most vital attributes. Emotional intelligence consists of five components: self-awareness, self-regulation, motivation, empathy, and social skill.

In the last 80 years, the leadership theories started from a focus on the individual leader and his/her traits. Subsequently leadership theory developed: first through the consideration of the context of the leadership situation; second through transferring focus from the observable behavior of personal attributes to the intellectual exchange and interpersonal relationships.

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51 Barber and Warn, 2005, p. 1032
52 Yang, Huang and Wu, 2011, p. 259, with reference to Koontz and Weihrich, 1990, p. 2
54 Ibid, p. 259
55 Muller and Turner, 2010, p. 438
3 Method

3.1 Research approach

Inductive/deductive research approach and qualitative/quantitative research approach are often used to be research approach. In this study, we will use the inductive and qualitative approaches.

3.1.1 Induction versus deduction approaches

Deductive means that you want to use a theory that you find reliable and relevant and you want to test hypothesis built on these theoretical assumptions. Inductive approach means you collect empirical data and from this you can build up a theory. So the main difference is: Deductive – using a theory which are reduced to hypothesis and tested on empirical findings. Inductive – collect empirical data and build up a theory.

In this study, the inductive approach is chosen as a proper method because of the following reasons:

There were many problems about cost, which were found by Hailiang when he had internship in the LvYu Gardening Company. In the two-month internship period, the main job of Hailiang was in charge of project supervision and administration. Therefore, Hailiang had to go to the exhibition center to be an inspector two times per week, like supervising the maintenance work of the employees, checking the equipment maintenance, arranging transportation etc. In the whole project, Hailiang also participated in the bidding phase, the agency phase, the implementing phase and the phase of signing the contract. Finally, he figured out why the problems about cost always happen which may be the common problems in the gardening industry, especially in smaller gardening companies.

This is a single case study so that generalization is not what the authors wanted to do. They wanted to understand the case and the benefits for small firms to build up a new practice to manage cost.

3.1.2 Qualitative versus quantitative data collection

Quantitative data collection is mainly used by the gathering of numeric data such as questionnaire, graphs or statistics. Qualitative data collection is mainly done by gathering data such as words (e.g., from interview), pictures or objects or other forms

56 Bryman and Bell, 2007, p. 154
57 Denscombe, 2007, p. 236
of non-numeric data.\textsuperscript{58} According to these statements, we thought that qualitative research approach was an understandable choice of this study. We used single case study as the research strategy seeing the case as illustrative for a bigger population. The research strategy provides comprehensible information about the project which enabled us to answer the research questions.

\section*{3.2 Case study as research strategy}

Research strategies mainly include experiment, survey, case study, action research, grounded theory, ethnography and archival research.\textsuperscript{59} Each strategy has its own merit and demerit, but the investigators have to consider three main conditions:
A. The type of research question;
B. The control the investigator has over actual behavioral events;
C. The focus on contemporary as opposed to historical phenomena.\textsuperscript{60}

Each strategy can be used for all three aims -- exploratory, descriptive and explanatory.\textsuperscript{61}

Exploratory study is done to make the people to know more about “what is happening; to seek insights; to ask questions and to access them in a new light”.\textsuperscript{62} Explanatory study is to investigate the “situation or problem in order to explain the relationships between variables”.\textsuperscript{63} A case study is a strategy for doing research, which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence.\textsuperscript{64} The case study strategy could give answer to why, how and even what happen and related questions.\textsuperscript{65} In this study, the authors used multiple data collection techniques such as telephone interview, direct observation and documentary analysis.

\section*{3.3 Sources of evidence}

There are six sources of evidences that are often collected in case study research and these are as follows: documentation; archival records; interviews; direct observations; participant observations and physical artifacts.\textsuperscript{66} In this study, documents, interviews and direct observation were used.

Documentations are any written thesis that contains documentary information about the subject of the case. For example: agendas, minutes of meetings, written reports of events, administrative documents, newspaper clippings and articles. The strengths of documentations are stable, unobtrusive, exact, and have broad coverage.

\begin{itemize}
  \item \textsuperscript{58} Ibid, p. 267
  \item \textsuperscript{59} Ibid, p. 30
  \item \textsuperscript{60} Yin, 2003, p. 1
  \item \textsuperscript{61} Ibid, p. 3
  \item \textsuperscript{62} Saunders, Lewis and Thornhill, 2009, p. 139, with reference to Robson, 2002, p. 59
  \item \textsuperscript{63} Ibid, p. 140
  \item \textsuperscript{64} Ibid, p. 145
  \item \textsuperscript{65} Yin, 2003, pp. 5-6
  \item \textsuperscript{66} Ibid, p. 78
\end{itemize}
But the weaknesses of documentations are restorability - can be low, biased selectivity - if collection is incomplete, reporting bias - reflects bias of author and access - may be deliberately blocked.\textsuperscript{67} In the present case study, we got the written project reports from the manager of LvYu Gardening Co. LTD.

Interviews are one of the most important sources and essential to gather case study information. The respondents need to be able to provide primary data and important insights into a situation. This data can be used in the study as it gives in depth information about a situation. However, the interviewers are probably influenced when doing the interviews or the respondents can say something which is not true. In this case study, we used a structured questionnaire with open-ended questions in the form of semi structured to do the interviews.\textsuperscript{68}

Direct observation can provide additional important data because it covers contextual events. But it takes a long time to observe something in a reliable way, which means increased costs for the observer to do this data collection.\textsuperscript{69} From January to May 2010, Hai-liang had internship in LvYu Gardening Co. LTD, which is one of the authors’ case companies. By this chance, Hai-liang attended the greening project of Shenzhen Exhibition Center, and he found there were problems about cost management when the workers implemented the project. This observed information worked as a basis to continue with the case study.

3.4 The data collection

3.4.1 Research design

To answer the research questions this research is done through data collection and analysis of data to compose the blueprint; it is also the plan of investigation that acquires answers to research questions.\textsuperscript{70} In this study the authors have developed 10 interview questions in the questionnaire (see appendix A). Through documentation of data collected and telephone interviews, the authors know how the employees in the companies manage to handle the costs. The analysis is performed based on the theory of cost management and related to empirical data. The research was designed as:

<table>
<thead>
<tr>
<th>Category</th>
<th>Option in this study</th>
</tr>
</thead>
<tbody>
<tr>
<td>The method of data collection</td>
<td>Telephone interview, documentation, direct observation</td>
</tr>
<tr>
<td>The topical scope of this study</td>
<td>Case study</td>
</tr>
<tr>
<td>The type of research question</td>
<td>Exploratory study</td>
</tr>
<tr>
<td>The purpose of the study</td>
<td>Descriptive</td>
</tr>
</tbody>
</table>

Table1. Description of research design. Source: own.

\textsuperscript{67} Ibid, p. 80  
\textsuperscript{68} Saunders, Lewis and Thornhill, 2009, p. 363  
\textsuperscript{69} Yin, 2003, p.92  
\textsuperscript{70} Blumberg, Cooper and Schindler, 2005, pp. 126-127
3.4.2 Choice of telephone interviews

This study takes the perspectives of the managers of both companies into account. Therefore, Mr. Chen, the manager from LvYu Gardening Company and Mr. Zhou, the Business Manager from SiJiQing Gardening Company were interviewed. We believe that they have professional knowledge with the overall view of the chosen research areas and that they are very familiar with the considered project. The reason why we only got in touch with two managers via telephone or e-mail is that both companies are located in China. Through two telephone interviews, the managers shared their experiences and opinions with the authors about cost management issues included in the project. They also sent internal documents about the project to us by e-mail, which has given us a deep look into further information and details about the project. The authors got the permission to publish the information of the interviews and the materials provided from both of the two companies. On average, each manager had about one hour conversation with us on the telephone. We believe that these interesting interviews have given us a good opportunity to understand the processes. The materials provided were very useful and underlined the good relationships during the interviews. Additionally, we did some research on the Internet to get more background information about the companies and their projects which were found on the website of each company.

3.5 Data analysis

Data analysis includes: examining; categorizing; tabulating; or otherwise recombining the data to deal with the initial purpose of a study.71 The research analysis has been acquired after data collection. Due to each online interview had been recorded, this study concluded the result of each conversation in detail when all telephone interviews had finished, and then analyzed how to manage the cost of the project. To the interviewee the qualitative interview brought out and captured the issues of importance, and interviewing gave more room for interviewee to explain issues of importance. Moreover, the interviewer was able to give some additional questions and supplemental information through direct observation. The data can be analyzed more completely. In this case, by the use of the SWOT model we analyzed LvYu Gardening Co. LTD data systematically and in relation to theory in order to analyze the case more in detail.

3.5.1 SWOT analysis

SWOT is an important framework to evaluate the strategic situation of a firm in the competitive market, which formally is built up by grouping variables.72 It includes

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71 Yin, 2003, p. 102
72 Porter, 1981, p. 609
strengths, weaknesses, opportunities and threats. While strengths and weaknesses refer to internal conditions, opportunities and threats include external factors that companies are trying to control and shown in figure5:

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<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Conditions</td>
<td></td>
</tr>
<tr>
<td>Opportunities</td>
<td>Threats</td>
</tr>
<tr>
<td>External Conditions</td>
<td></td>
</tr>
</tbody>
</table>
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Figure5. A conventional SWOT matrix

In the following four parts strengths, weaknesses, opportunities and threats of the SWOT Analysis are described.

Strengths

Strengths of an organization can be viewed as resources and capacities to developing its competitive advantages. The internal and external customers determine an organization’s strong points. The features of strengths include unique or distinct advantages that make the organization stand out in the marketplace and in relation to the customers to choose the organization. Moreover, through identification of the company’s strengths, it is difficult for the organization’s competitors to imitate their present and future products or services.

Weaknesses

An organization lacking of certain strengths may be considered as a weakness. Both an organization’s point of view and their customers can determine the organization’s weaknesses. The features of weaknesses include operations or procedures of the organization which can be improved, their competitors operate better than themselves, the organization does not have crisis awareness, and their market segment is not clear. Although it may be hard for an organization to be aware of it, it is best to deal with shortcomings when the organization is aware of the weaknesses as soon as possible.

Opportunities

Analysis of the external environment to get some new chances may make an organization to improve profit. It determines how the organization can grow continuously in the crowd. There are a lot of opportunities in our life, for example,

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73 Watkins, 2007, p.39
74 Lee and Andrew Sai On Ko, 2000, p. 69
75 Ibid, p. 69
change in government policy, technique and the function of staff. The features of opportunities include how to adapt to attractive opportunities and meet new emerging trends within the marketplace, which facilitate how the organization can predict new opportunities arising in the future.76

Threats
Changes in the external environment may cause trouble to an organization. Although there are some external factors out of the organization’s control they still need to face them. The features of threats include the organization’s competition and to do something to restrain the organizational development such as change in requirements of the organization’s products or services, and/or new technology hurting the organization’s position.77
In our case study, these four positions are connected to the material from telephone interview, documentation and direct observation. After data collection we were able to analyze strength, weaknesses, opportunities and threat of LvYu Gardening Co. LTD project in detail. From this we could also investigate in what areas companies’ in this situation could investigate resources to improve project performance in the future.

3.6 Reliability & Validity

3.6.1 Reliability

Reliability means if a later investigator followed the same procedures as described by the previous investigator, the later investigator would achieve the same findings and conclusions.78 The aim of reliability checks is to minimize the random errors and biases.
In this study, we tried to do our best to reach sufficient good reliability. First, according to the questionnaire, every telephone interview was held for one hour and was recorded; second, the questionnaire was design on the basis of the existing theory of cost management; third, the recordings of data are transcribed immediate after the interviews in order to re-examine the accurate data.

3.6.2 Validity

Validity refers to if the researcher has collected correct data and used correct methods in the study with the ambition to reflect what happened in the reality. The study should attain accurate, honest and targeting data to increase the validity of research.79 It includes three types of validity: construct validity, internal validity and

76 Ibid, p. 69
77 Ibid, p. 69
78 Yin, 2003, p. 37
79 Denscombe,2007, p. 32
external validity.\textsuperscript{80}

Construct validity refers to establishing correct operational measures for the concept being studied.\textsuperscript{81} In order to increase construct validity, this study utilized multiple sources of evidence. As mentioned before, the authors conducted a telephone interview with the manager of LvYu Gardening Company(Mr. Chen) and the Business Manager of SiJiQing Gardening Company(Mr. Zhou) to get the material of the project. The material includes a contract between the LvYu Gardening Co. LTD. and SiJiQing Gardening Co. LTD. The perspectives represent the reality.

Internal validity refers to establish a causal relationship which different from spurious relationships, whereby certain conditions are shown to lead to other conditions. In this qualitative research, the authors mainly focus on the perspective and view of interviewee, and reflecting a whole interpretation by an honest way.

External validity refers to establish the area, which a study’s findings can be generalized. This research conducted with one case study in two gardening company which enhance the external validity.
4 Case Study

4.1 The Gardening Industry

In China, the gardening and outdoor living industry was worth about $20 billion in 2011, reports MarketLine.\(^2\) From 2007 to 2011, the market recorded more than 10% annual growth in the four year period.\(^3\) This market growth is expected to slow to annual rate of just over 9% annually from 2011 to 2016.\(^4\) In 2016, the gardening industry is expected to bring over $30 billion to the market in China.\(^5\)

4.2 The relationship among the case companies

4.2.1 SiJiQing Gardening Co. LTD

SiJiQing Gardening Co. LTD\(^6\) was found in 1985 and is the leading company in the gardening industry located in Shenzhen, Guangdong Province, China. The company has a history of more than 20 years of gardening work and the registered capital of the company is about 41 million RMB (1 RMB for 1 Swedish Kronor roughly). The total business turnover in the company is more than 200 million RMB every year. The company has received many certifications of gardening industry such as A-level gardening enterprise qualification and B-level garden designing qualification which is dedicated to specializing in planning, designing and implementing of gardening project, and seeding production and sales. Depending on the need of creative ideas related to garden designing and efficient performance, SiJiQing Gardening Co. LTD want to have a good image in relationship to its customers. With raised competition this has been more evident in the last years. Nowadays, the company is one of the most famous leading gardening companies in Guangdong Province, China, due to its good performance and comprehensive strength.

With the rapid development of SiJiQing Gardening Co. LTD in the last 20 years, their business has expanded to involve other cities in China, such as Beijing, Shanghai and Chongqing, and the company has performed more than 200 large and medium sized gardening projects. In some of these projects they have obtained awards, such as

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\(^{3}\) Ibid, 2012

\(^{4}\) Ibid, 2012

\(^{5}\) Ibid, 2012

in 2006, the project named “the first period greening project of Meilin Park” was done by the company. For this they got the “Excellent Gardening Project Silver Award” from Chinese Society of Landscape Architecture (CSLA). In 2007, the project named “the first period gardening project of Shenguong Square” was performed by SiJiQing Gardening Co. LTD and for this they received the “Excellent Model Project” as an award from Shenzhen Landscape Community.

In the last 20 years, SiJiQing Gardening Co. LTD has expanded the company scale by setting up a good reputation in relation to its customers. Until 2006, SiJiQing Gardening Co. LTD had built 4 large seeding and flower bases: Yinhu Base (13,000 square meters), Baoan Base (13,000 square meters), Xili Base (17,000 square meters) and Dapeng Base (100,000 square meters). With the rapid development, SiJiQing Gardening Co. LTD aims at providing high quality service to its customers that is based on the principle of “survival by quality, developing by credibility”.

4.2.2 LvYu Gardening Co. LTD

LvYu Gardening Co. LTD was found in 2009 and is located in Shenzhen, Guangdong Province, China. The registered capital of the company is about 3 million Yuan. There are 30 employees in the company, including landscape engineers, project manager, accountants, and gardening workers. It is one of many private gardening companies, which integrate landscape planning and construction as a business. The company specializes in business of gardening designing, greening project, greening maintenance, flowers and trees renting and furnishing, potted flower retailing and so on. In the last two years, LvYu Gardening Co. LTD has participated in projects including flowers and trees renting and furnishing, such as the project of Shenzhen Exhibition Center. After having worked hard in more than two years, LvYu has created a professional team, which works in gardening design, construction and maintenance.

4.2.3 Shenzhen Exhibition Center – the project context

Shenzhen Exhibition Center is a super-large public building that is invested by Shenzhen government, which integrates a variety of functions such as exhibitions, conferences, business, catering, and entertainment. Shenzhen Exhibition Center is located at the city center, covers 220,000 square meters area and has both exhibition and conference functions. There are 8 big exhibition halls, 25 conference halls, 3 big dining areas and supporting services, which can meet different requirements when held different kinds of exhibition and activities. Moreover, it can comprehensively support multiple business activities. With the long exhibition experience of high quality professional construction team, Shenzhen Exhibition Center has completed hundreds of international, specialized large-scale exhibition design and construction work successfully. This implies that companies engaged in the exhibitions need to work professionally to support the good image of the center.
4.2.4 The relationship between the case companies

In accordance to the three case companies that we introduced above, LvYu Gardening Co. LTD is the agent, SiJiQing Gardening Co. LTD is the principal and Shenzhen Exhibition Center is the third party. In our case, shown by Figure 6, SiJiQing Gardening Co. LTD bid for the greening project of Shenzhen Exhibition Center, and LvYu Gardening Co. LTD is commissioned by SiJiQing Gardening Co. LTD to run the project under an agency contract. According to the agency contract, LvYu Gardening Co. LTD, as the agent, need to pay the agency fee of about 3 percent of the profit to SiJiQing Gardening Co. LTD after completed the project. Moreover, the agent needs to buy the materials such as trees and flowers that they need while renting tools and machines from SiJiQing Gardening Co. LTD. LvYu Gardening Co. LTD. By this arrangement they can get support like technical and human resource support from SiJiQing Gardening Co. LTD. In short the relationship between SiJiQing Gardening Co. LTD and LvYu Gardening Co. LTD is not only a pure principal-agent relationship, but also includes roles as supplier and buyer, which indicates a complex relationship between the two companies.

How the project is performed by LvYu Gardening Co. LTD will have influence on both LvYu and SiJiQing. In this case, the goal of LvYu Gardening Co. LTD work is to make top management of Shenzhen Exhibition Center to be satisfied with what they have done. If not, the top management of Shenzhen Exhibition Center will make complaints about the quality of the project to SiJiQing Gardening Co. LTD which will have negative effects on the image of SiJiQing. Thus, how the quality of the project is handled in the agency company will have important effects on the relationship between all three organizations. If the project runs perfectly, that will help LvYu Gardening Co. LTD to build up win-win relationship with SiJiQing Gardening Co. LTD and Shenzhen Exhibition Center as well. Most important is, however, that a good performance can help LvYu Gardening Co. LTD to get a good enterprise image in relation to the top management of Shenzhen Exhibition Center, which in the future can have positive effects for the company’s development. If the center is satisfied with their work, the company could be trusted by SiJiQing Gardening Co. LTD and strength their cooperation relationship as well. These situations show in the figure 7.

![Diagram](image)

Figure6. The relationship between the case companies. Source: own
4.3 About the project

4.3.1 How LvYu Gardening Co. LTD implement the project

The greening project of Shenzhen Exhibition Center is a two-year project. The goal of the project is that LvYu Gardening Co. LTD should provide a high quality greening service to Shenzhen Exhibition Center by systemic management, teamwork of involved workers, and by the use of advanced equipment and techniques.

Project performance includes four phases as follow:
1. Bidding and agency phase
   At the bidding phase, SiJiQing Gardening Co. LTD send in material and certifications about the company to Shenzhen Exhibition Center. The material and certifications are including quotations, item list, a series of certifications and previous project performances of SiJiQing Gardening Co. LTD, the scheme of gardening service, labor list and the evaluation of their project engagement. After obtaining the project, SiJiQing Gardening Co. LTD is commissioned to be responsible for the project and this is done in relation to LvYu Gardening Co. LTD under the agency contract. After the contract is signed the project could start up by LvYu Gardening Co. LTD.

2. Designing phase
   The Shenzhen Exhibition Center hold large-scale exhibitions every year, such as China Hi-Tech Fair, the exhibition of international furniture woodworking machinery, the exhibition of international machinery mold, the China Export Commodities Fair, and COMDEX and CEBIT. Top management of Shenzhen Exhibition Center requires different kind of designing ideas according to different exhibitions. However, the qualification of LvYu Gardening Co. LTD design is not perceived as good enough. According to the contract, the designer of SiJiQing Gardening Co. LTD should provide the design guide and technique to LvYu Gardening Co. LTD and build up a designing team. With the help of the designer of SiJiQing Gardening Co. LTD, the designing team develops different schemes of Shenzhen Exhibition Center. Finally, the manager of Shenzhen Exhibition Center decides which one of the schemes that should be used.

3. Implementing phase
In the implementing phase, according to the requirement and the development plan of Shenzhen Exhibition Center, the LvYu Gardening Co.LTD has to follow the standards of greening and artistic. The greening services of the project are including the following activities:
A. Flowers and trees renting and furnishing the offices.
B. Green belt maintaining around the exhibition center.
C. Parterre maintaining in the north square of the exhibition center.
D. Flower and trees renting and furnishing in the meeting rooms.
E. Flower furnishing in the China High-tech Fair exhibition

According to the requirement of the designing blueprint, the agent company orders the materials that they need from the principal company and other suppliers. After that, the materials could be delivered to the Shenzhen Exhibition Center by a lorry. Finally, the greening workers of LvYu Gardening Co. LTD implement the project according to the designing blueprint.

4. Maintaining phase

In the maintaining phase, the daily managing and maintaining work of the project mainly include activities like watering, cultivating, weeding, fertilizing, pruning, wound healing, pest controlling and clear away die plants. The technical team of LvYu Gardening Co. LTD has to do comprehensive checks at the greening area once a week as a minimum. Each team sent out workers to routine maintenance management greening in the area every day. During the exhibit phase, LvYu Gardening Co. LTD works with quality by adding more workers and management personnel in order to guarantee that no rubbish or contaminations happen in the area.

4.4. The existing problem of cost management of the project

During the project that LvYu Gardening Co. LTD has taken responsibility to implement, the following problems appeared in the following areas:

1. It is difficult to control the agency fee. With the rapid development of gardening industry in China, the competition in the market has becomes fiercer and fiercer. In order to increase market shares, SiJiQing Gardening Co. LTD, as one of the leading company in the gardening industry, improves its bidding rate situation by reducing quotation costs. SiJiQing Gardening Co. LTD commissioned LvYu Gardening Co. LTD to run the project under an agency contract after they won the bidding. The agreement stated that the leading company, by the agency fee, should receive three percent of the profit of the project from the agent company. In addition, the leading company, according to the agency contract should provide products, technique and design support to LvYu Gardening Co. LTD. By doing this, SiJiQing Gardening Co. LTD received payments that were high and hence, negative for LvYu Gardening Co. LTD as these fees increased the costs for them.

2. The understanding of cost management’s importance is not enough. Cost
management should be applied to the whole project in different periods to make sure that the company has control of the costs. In some occasions the constructors of LvYu Gardening Co. LTD increased the number of workers and rent equipment blindly in order to complete the project on time. This lead to a situation where the workers were idle, which leads to inefficiency, causing labor cost wastage. In other occasions the constructor could not get the accurate data of materials and ended up with a second transportation fee. In order to ensure that the project should have a high quality, the technical personnel took some measures in consideration that worked well but were wasteful so that the cost of the project increased. There were no discussions among the personnel of the project team about how to save costs in the project. For the company, cost management became a tough experience.

3. Lack of budgeting and controlling on capital. When LvYu Gardening Co. LTD started the project, the capital situation is loose and they lack capital reservation. In the project implementation period, LvYu Gardening Co. LTD tries to catch up with the project activities and deliverables, and ignores the costs of labor, materials, equipment, and ended up in a situation of overspending. The costs of the project were too high in relation to their original plan so the profit of the project is reduced.

4. Lack of reasonable rewards and punishment mechanism. Cost management assessment is connected with remuneration. If assessment mechanism is reasonable, it can reduce costs and increase benefits, otherwise it will not. The principle of combining rights, responsibilities and interests among workers are an important key to reduce the costs by more efficient work, which, if properly undertaken can promote the development of cost management. The rights, responsibilities and interests in LvYu Gardening Co. LTD, are not clearly stated and hence, communicated well in practical work. They are not rewarded or punished no matter how much job the workers do or how well they work. Actions undertaken have only minor effect on work efficiency. This situation was bad as efforts were not taken to improve the workers’ positivity of job. Moreover, the methods and standards for reward or punishment were not specified in a fair and reasonable way. This contributed to a situation in which the workers lost some of their enthusiasm with increased costs as a result.

5. Ignorance of management and control of quality cost. Sometimes the agent company just focused on quality of the project itself instead of paying attention to the costs. Although it supported quality improvements, the cost increased as well. LvYu Gardening Co. LTD forgot to focus on economic benefits, as they could not ignore the quality as it could have influence on the reputation of the company in the future.
5 Analysis

In this chapter, the empirical material from the case study are analyzed by the use of a SWOT analysis approach and related to Cost Management System concepts. The most interesting findings identified are discussed and related to theory in order to answer the research questions.

5.1 Analyze LvYu Gardening Co. LTD

As mentioned previously, LvYu Gardening Co. LTD is a company that provides greening services to customers, such as gardening designing, greening project, greening maintenance, flower and trees renting and furnishing, potted flower retailing. The company represents only one of many small companies in the gardening industry area. The company situation illustrate how they deal with fiercer competition, making it difficult for small firms to get or built up market shares in one highly competitive industrial area. The strategy adopted by LvYu Gardening Co. LTD is to co-operate with a big company, through being commissioned by the big companies to take part in medium and large size projects. That means LvYu Gardening Co. LTD, as an agent, is implementing the projects under the contract of a big company.

To analyze the outcome of the project we adopt a SWOT analysis approach. SWOT is an important framework to evaluate the strategic situation of a firm in the competitive market, which is built by formally grouping variables.\(^\text{87}\) It includes strengths, weaknesses, opportunities and threats. Through the systematic analyze by using the SWOT model, the authors’ intention is to identify what the existing problems small companies might face and provide some suggestions related to cost management problems. Here, the strengths (S), weaknesses (W), opportunities (O) and threats (T) of the company will be analyzed by the use of SWOT variables and relevant theories.

1. Strengths

Strengths of an organization can be viewed as resources and capacities to developing its competitive advantages. The internal and external customers determine an organization’s strong points.\(^\text{88}\) Cooperating with a leading company, SiJiQing Gardening Co. LTD, in gardening industry area could be seen as the strength for LvYu Gardening Co. LTD. On one hand, LvYu Gardening Co. LTD, as the agent, can gain increasing market shares through co-operating with the principal company. On the other hand, through collaboration, the agent can receive technical supports and tools from the principal company, which provide them with ability to perform the project. These benefits may also help the agent company to perform the project more efficient and make the customers satisfy with the quality of the project.

\(^\text{87}\) Porter, 1981, p. 609

\(^\text{88}\) Lee and Andrew Sai On Ko, 2000, p. 69
2. Weaknesses
An organizational lack of certain resources could be considered as a weakness.\(^8^9\) Both from an organization’s point of view and their customers, lack of resources can constitute the organization’s core weaknesses. As a small company, it is very important to recognize the weaknesses of its own. The weaknesses of LvYu Gardening Co. LTD are as follow:

- Intangible assets
  To a company, a brand is one of the most important intangible assets.\(^9^0\) How to set up a brand with high reputation is a great challenge for a small company at the beginning. In the case, LvYu Gardening Co. LTD did not have a famous brand name to support them to gain important projects by their own. They need to be commissioned the job by big companies such as SiJiQing Gardening Co. LTD. This requires co-operative efforts in relationship to each other. So LvYu Gardening Co. LTD, as an agent, had to pay agency fee to undertake the project from the big companies. In this way the small company was dependent on the large company to finish the job and extra costs incurred simultaneously.

- Tangible assets
  The weaknesses of LvYu Gardening Co. LTD when it comes to tangible assets include having a small-scale production base and lack of equipment and tools. The small-scale production base of LvYu Gardening Co. LTD means that they cannot provide enough flowers and trees to perform the project so that they need to order more from other suppliers. Moreover, LvYu Gardening Co. LTD also has to rent equipment and tools to perform projects from other large companies. For the small company, these shortfalls increase the costs of resources and transportation.

- Cost Management system
  Without a comprehensive and systemic management system, it is very difficult for a company to development now and in the future.\(^9^1\) In this case, due to the mismanagement of the top management of LvYu Gardening Co. LTD, it often generate some extra costs because of some mistakes happened when performing the project. Moreover, the rewards and punishment mechanism of LvYu Gardening Co. LTD are unreasonable. No matter how efficient the workers are, the rewards and punishments are not obvious, which contribute to that the workers become negative to their job as they find it difficult to know how to do the work in the best possible way.

- Human resource
  The aim of worker involvement is to get ideas, creativeness and energy from the workers of a company to solve problem and keep improving continuously.\(^9^2\) Obviously, one weakness related to human resource of LvYu Gardening Co. LTD is

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\(^8^9\) Lee and Andrew Sai On Ko, 2000, p. 69
\(^9^0\) Grimaldi and Cricelli, 2009, p. 40
\(^9^1\) Agrawal, Mehra and Siegel, 1998, p. 60
\(^9^2\) Ibid, p. 71
they are lacking experienced designers and skilled workers. When LvYu Gardening Co. LTD is approved to undertake a project, they have to pay additional costs for designers employed from big companies to build up their own team to design the blueprint for the project and to recruit some temporary skilled workers to perform the project as well.

3. Opportunities

Companies that are analyzing the external environment are able to get more chances and to gain more profit. With the development of society, people pay more attention to the surroundings and people accept environmental awareness widely nowadays. In developed areas in China such as Peking, Shenzhen, Shanghai and Hong Kong, the local governments came up with some preferential policies to support development of the gardening industry. Depending on these governmental awareness and preferential policies, LvYu Gardening Co. LTD is supported to have a good opportunity to do their business in the gardening industry area even if it is just a small company now.

4. Threats

Changes in the external environment may cause trouble to an organization. Although external factors exist that are out of the organization’s control, they still need to face them. Even though there are many potential customers interested in the gardening industry, the company faced the pressure of competition and the price war with competitors, that further decrease their profit. In the case, Shenzhen Exhibition Center required a qualified gardening company to be involved in the project, but this includes having certification to qualify for enough financial support, skilled designers and workers, advanced equipment and tools etc. Thus, LvYu Gardening Co. LTD does not have the certification of these qualities, which is a big threat for their business.

According to SWOT analysis we have identified four different areas that LvYu Gardening Co. LTD need to improve to increase business opportunities. LvYu Gardening Co. LTD can not only utilize the strengths of co-operating with SiJiQing Gardening Co. LTD but also need to reduce the weaknesses the authors discussed above when doing business by taking part in projects.

5.2 Cost Management analysis

Through analyzing the case by SWOT, we have identified that cost management problems are the most importance part that restricts the development of LvYu Gardening Co. LTD. As Agrawal et al mention, the main purpose of the cost management system is to maximize profits. Some of their costs are unnecessary, so the application of how to avoid these costs could be a way to increase the profit for

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93 Lee and Andrew Sai On Ko, 2000, p. 69
94 Agrawal, Mehra and Siegel, 1998, p. 60
companies in the situation of LvYu Gardening Co. LTD. Cost management starts with an awareness of what activities that generate important costs. It has been seen that there are several kinds of costs that are generated when LvYu Gardening Co. LTD implemented the project. These costs can be classified into two types: direct costs and indirect costs. Direct costs are the costs that are generated from the assignment of the project: the costs of labor and materials are the direct costs that are present. Indirect costs are generally linked to two features, overhead cost and selling and general administration cost. In the authors’ case, the direct costs and the indirect costs of the project are presented as Figure 8 shows below.

![Cost Structure Diagram]

Figure 8. The costs of the project. Source: own.

### 5.2.1 Direct cost

As Figure 10 shows above, the direct costs include labor cost and material cost which occupy a large part of all the costs when LvYu Gardening Co. LTD performs the project.

- Labor cost
  
  Performing a project required different kinds of personnel to work in different positions in different periods.

  In the designing phase, the designing team consists of the designers of LvYu Gardening Co. LTD and the support designers, which came from SiJiQing Gardening Co. LTD. The designing team comes up with several plans for the top management of Shenzhen Exhibition Center to choose among. Some of the labor costs can be considered as direct cost, like the costs of their own designers. But, some of the labor costs cannot be considered as direct costs for the project such as the costs of the support personnel which will be analyzed below. At the implementing phase, following to the plan chosen by the top management of Shenzhen Exhibition Center,

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95 Groth and Kinney, 1994, p.53
96 Pinto, 2007, p.250
97 Ibid, p. 250
98 Ibid, p. 251
the purchasing staff orders the materials, such as flowers and trees that they need to have to implement the project. Then the materials could be delivered to the workplace for the workers to decorate different areas on the basis of the blueprint. At the maintaining phase, the daily work of the workers is watering, cultivating, weeding, fertilizing, pruning, wound healing, pest controlling and removing die plants.

Teamwork plays an important role when running a project, including the leadership of teams as well. Leadership is the ability to influence groups for purposes of target accomplishment. There are different teams that are found in the LvYu Gardening Co. LTD case and in different phases. Good teamwork and leadership can improve efficiency of work and reduce costs when implementing the project which has effect on the costs under their control and if possible work to reduce them.

- Materials cost

Different areas of the greening project required different kinds of flowers and trees. Due to the small scale of the production base, LvYu Gardening Co. LTD need to order more flowers and trees with a higher price from SiJiQing Gardening Co. LTD. LvYu Gardening Co. LTD needs to set up a long-term relationship with suppliers that may reduce the material cost gradually. At the maintaining phase, due to the workers lack of professional knowledge or carelessness leads to the plants withering, resulting in the need to purchase replacements. To avoid these kinds of mistakes and to reduce unnecessary costs is very important for the development of a company.

The costs of labor and materials were necessary when performing the project. As Agrawal et al argue, a process map may help a company to reduce non-value added activities and improve value added activities. The costs of labor and necessary materials cannot be reduced in the project. Improving the process in different working phases can be considered as a good solution to improve the efficiency of the work and customer satisfaction.

5.2.2 Indirect cost

From figure 10 above is evident that there are several kinds of indirect cost included in the project when LvYu Gardening Co. LTD implement the project, such as agency cost, support personnel fee, rental of equipment, training fee and other fees. These costs could be seen as unnecessary due to inexperience of designers or inefficiency of unskilled workers.

- Agency fee

Agency theory is here used to analyze the relationship between the principal and the agent. The principal is committed to work with the agent, and the agent is

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99 Thamhain, 2004. p. 533
100 Ibid, p. 533
101 Agrawal, Mehra and Siegel, 1998, p. 63
implementing the work for the principal.\textsuperscript{102} As a small company, LvYu Gardening Co. LTD is running its own business but could only undertake small size projects. In order to develop and set up a good image to its customers, LvYu Gardening Co. LTD adopted the strategy of co-operating with a leading company in the gardening industry area to be involved in medium or large size projects. According to the Chinese Agency Law\textsuperscript{103} and Contract Law\textsuperscript{104}, the agency concept accepted by the companies is legal in China. In our case, LvYu Gardening Co. LTD, as the agent, is commissioned by SiJiQing Gardening Co. LTD to perform the project of two-years greening services for Shenzhen Exhibition Center, which can be considered as a large size project. Therefore, before performing the project, LvYu Gardening Co. LTD not only sign a contract with the principal company to ensure that the project would be completed to make the top management of Shenzhen Exhibition Center satisfy, but also pay the agency fee which is agreed at 3 percent of the profit. This strategy is perceived as a good idea for a company at the beginning, but it is not good for the long-term development of a company because of the agency fee and other fees related to the work. LvYu Gardening Co. LTD was under pressure to set up a good image and reputation in relation to its customers by engaging and approving this chance.

- Support personnel fee

As mentioned before, the designers of LvYu Gardening Co. LTD are inexperienced in managing the designing team. According to the contract, SiJiQing Gardening Co. LTD, as the principal company, provides support personnel to help the agent company when it experiences a problem. The principal company sent an experienced designer on the mission, to help the designing team of the agent company to come up with several blueprints for the project. Even though this was quite helpful, LvYu Gardening Co. LTD had to pay a support personnel fee to the experienced designer that can be considered as an unnecessary cost. According to the Self-Perpetuating System of Improvement (SPSI) which indicates that two goals are required to improve value added activities and to decrease non-value added activities.\textsuperscript{105} Though the company had to pay to the experienced designer to help the designing team, this can be considered as value added activity to the project. This solution is however not a long term strategy for a small new company that want to act on behalf of its own resources.

Moreover, LvYu Gardening Co. LTD, as a small company, had limited skillful workers to perform a large size project. So it had to recruit many temporary greening workers to perform the project that was paid hourly. Normally, the payment of temporary worker is higher. With the development of a small company, this kind of cost would need to decrease in time.

\textsuperscript{102} Whipple and Roh, 2010, p. 342 ,with reference to Jensen and Meckling, 1976, pp. 305-60

\textsuperscript{103} Agency law overview of the People's Republic of China, 1987,  
<http://www.eduzhai.net/yingyu/615/763/yingyu_247351_5.html> [access 2011-05-12]

\textsuperscript{104} Contract Law Of P. R. CHINA,2008,  

\textsuperscript{105} Agrawal, Mehra and Siegel,1998, p. 62
● Rental of equipment

The rental of equipment or facilities becomes a charge increasing the costs of a project.\(^{106}\) Reducing the rental of equipment and facility costs are central problems to handle within a project team. At the implementing phase, in order to catch up with the requirement of the process, the project needed that the flowers and the trees be delivered to Shenzhen Exhibition Center within a short time. LvYu Gardening Co. LTD has not enough trucks to deliver the flowers and trees in time. Consequently, they had to rent lorries to increase the speed of delivery. Moreover, at the maintaining phase, they needed machines such as lawnmower, hedge trimmer, chain saw and sprayer to maintain the flowers and trees. These machines are expensive which means that it is difficult for LvYu Gardening Co. LTD to buy all of them. LvYu, as the agent, can only rent the machines from the principal company and had to pay for using them.

● Training fee

Worker involvement refers to using maximum effects of all the workers of a company to solve problems. As mentioned above, the goal of worker involvement is to help a company to solve problem and keep improving continuously through getting ideas, creativeness and energies from the workers.\(^{107}\) Advanced training can increase the staff’s working ability and technique, then efficiency improvements in work can way to create values for the company and society. There were two kinds of technical training in LvYu Gardening Co. LTD. The first is to train the main technical personnel and the second to train workers by technical personnel. According to the need of work, LvYu Gardening Co. LTD often invites qualified trainers of gardening to train their technical personnel. The company also provides relevant books about gardening in order to make the technical personnel to become more qualified and to learn scientific and technical knowledge needed at work. The technical personnel of LvYu Gardening Co. LTD are able to train the workers about basic knowledge of gardening and focus on how to train each link involved in the maintaining phase. In the practical training, the technical personnel of LvYu Gardening Co. LTD often take their workers to Shenzhen Exhibition Center and train their operation of maintaining. For example, when problems happen in practical operations, the technical personnel help the workers to analyze the problems, explain underlying reasons to them and how to solve problems by the application of proper methods and principles.

● Quality bail

The aim of TQM is to identify and reduce the costs that are related to the quality of products or services, which commonly occupy a significant percentage of the total costs of a company.\(^{108}\) It is impossible to eliminate the costs that are related to quality totally, some costs could be reduced but could as well increase in other parts of the company. Before the project of Shenzhen Exhibition Center, LvYu Gardening Co.

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\(^{106}\) Pinto, 2007, p. 252

\(^{107}\) Agrawal, Mehra and Siegel, 1998, p. 70

\(^{108}\) Ibid, p. 68
LTD, as the agent, give the quality bail to SiJiQing Gardening Co. LTD to guarantee that the project will be completed with the high quality. If LvYu Gardening Co. LTD can make the top management of Shenzhen Exhibition Center to feel satisfied with the project that they had done, the principal company had to pay the quality bail back to the agent company in full. If not, the principal company may just pay a proportion of the quality bail back to the agent company and it will have a negative effect on the co-operating relationship between each other.

As Gupta and Galloway say, "Improve quality, and all else will follow".109 This is a good chance that LvYu Gardening Co. LTD gets in touch with a big project, so they need to do their best to set up a good image to others. According to TQM, Some costs may reduce but may also increase elsewhere.110 Since this is a good chance for LvYu Gardening Co. LTD, they need to pay attention on Prevention costs and Appraisal costs to avoid Internal failure costs and External failure costs as much as possible. Moreover, commitment to customer orientation is related to customer service and covers what the customer need which has to be realized by the leaders of the company.111 So customer comments from Shenzhen Exhibition Center are important to the development of LvYu Gardening Co. LTD.

- **Extra transportation fee**

Extra transportation fee are generated because of poor communication. Sometimes, the manager of LvYu Gardening Co. LTD gave the suppliers the wrong information which leads to the generation of extra transportation fee. Therefore, the company should develop a long-term relationship with reliable suppliers to avoid the extension of extra transportation fee. Under the JIT System, it requires the suppliers to deliver the right material with good quality in an accurate quantity through a right way.112 In our opinion, JIT System could be considered as an ideal to use but which is difficult to reach. Reducing the work mistakes, like avoiding wrong information exchange, is a good way to approach JIT as possible.

- **Replacement fee**

In addition, according to the contract, the flowers and trees need to be replaced due to the carelessness of the workers in the maintaining phase. According to Gupta and Galloway113, "prevention costs refer to the costs of activities performed to prevent errors from occurring". So improving the professional knowledge and skills of a worker is a measure to reduce or avoid this kind of replacement cost.

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109 Gupta and Galloway, 2003, p.135
110 Agrawal, Mehra and Siegel, 1998, p.68
111 Ibid, p. 69
112 Ibid, p. 67
113 Gupta and Galloway, 2003, p. 135
6 Conclusion

This chapter presents the conclusion of the investigation and a discussion based on the authors’ research questions and purpose of the study. The theoretical and practical contributions of the authors’ study are discussed. After that suggestions for future research are discussed accordingly.

6.1 Summary of the findings

The purpose of this research is to analyze how a small gardening company can reduce the cost when implementing a project by the use of Cost Management System Theory. To achieve this goal three questions were formulated. The following discussion is based on the questions and our analysis of them.

*How can the leader of a small gardening company use cost management concept to improve its project performance?*

In order to achieve the primary objectives of global competition and continuous improvement, a cost management system needs the top management commitment; the workers involvement in different positions and a self-perpetuating system of improvement.\(^\text{114}\) When performing a project, the Chinese gardening companies commonly build up several kinds of teams, such as designing team and implementing team. The leader of a team is playing a very important role. According to Thamhain\(^\text{115}\) it is necessary to encourage the team members to be positive at work. The leaders’ recommendations could also work as a guide when the team members experience problems as well. Moreover, Agrawal et al.\(^\text{116}\) argue that establishing a mechanism of rewards and punishments can be considered as helpful idea to maximize the efficiency of the teamwork in small companies. In this study, we have seen that the leader and the team did not concentrate their common efforts to improve the efficiency of project performance, which increased the costs in the project.

*How can a small gardening company control indirect costs in project implementations?*

To reduce or eliminate indirect costs, Agrawal and Fogelman\(^\text{117}\) suggest that companies could use total quality management. From the case is evident that at the beginning, quality work increased prevention costs. For example, LvYu Gardening Co. LTD had to pay extra expenses to SiJiQing Gardening Co. LTD to ensure that the quantity and quality of flowers and trees could be met as required. In China, it is good for a small gardening company to establish a cooperative relationship with a big

\(^{114}\) Agrawal, Mehra and Siegel, 1998, p. 60

\(^{115}\) Thamhain, 2004, p. 533

\(^{116}\) Agrawal, Mehra and Siegel, 1998, p. 72

\(^{117}\) Ibid, p. 68
gardening company so that the cost of materials and the rental of machines could decrease over time. The costs in the project case, have so far increased making it difficult for them to survive.

*How can project leaders and the team of a small gardening company improve quality at work and simultaneous keep the costs at acceptable level?*

In order to reduce the cost of performing a project, the analysis shows how the understanding of cost management is low in the small gardening company, from the top management to the workers in different positions. According to Thamhain\textsuperscript{118}, project leadership needs to pay close attention on how to manage costs both in administration and in work. In addition, Agrawal et al\textsuperscript{119} pay attention to how it is necessary to educate workers in different positions to understand the importance of cost management to develop a small company. From the case we have seen that in the implementation phase, the workers in different positions did not pay attention to cost management issues while the project leaders just played the role of monitoring them in this process. Finally, Agrawal et al\textsuperscript{120} suggest that cost management needs not only to focus on the cost in accounting after finished the project, but also focus on cost budgeting and cost control during the process.

**6.2 Suggestions for a small business firm**

From the case we have noticed that LvYu Gardening Co. LTD experience several problems when implementing a project that need to be completed in time. According to these problems, we suggest that small business firms in gardening industry need to improve the follow features in project management.

1. Training

Some companies find that many people who run projects are lacking basic knowledge, skills and competence to work efficiently in project.\textsuperscript{121} The small gardening company lacked experienced designers so it had to pay fees to hire experienced designers from a big gardening company temporarily to help its own designing team at the designing phase. According to Agrawal et al\textsuperscript{122}, there is a need of a long term training strategy to reduce the costs in a project. In the authors’ opinion, a small gardening company needs to provide more training opportunities to its own designers, especially the young potential design group who might have more creative and imaginative ideas. Training can be a part of the long-term development strategy. By training, the young design personnel may become experienced designers that will be helpful to a company in the future.

\textsuperscript{118} Thamhain, 2004, p. 533
\textsuperscript{119} Agrawal, Mehra and Siegel, 1998, p. 72
\textsuperscript{120} Ibid, p. 70
\textsuperscript{121} Edmonds, 2010, p. 314
\textsuperscript{122} Agrawal, Mehra and Siegel, 1998, p. 72
Furthermore, a small gardening company could provide training opportunities to other workers as well. The workers can gain more professional knowledge and skills through the training courses, which could give positive effects on the processes when performing a project. If the workers become more skillful, they will not only improve efficiency and ensure that the project is performed with a high quality, but also could add values in activities when meeting the customers.

Training could help a small gardening company to avoid heavy replacement costs and to get the quality bail back from a big gardening company (principal company) fully.

2. Setting up a reasonable rewards and punishment mechanism

A reasonable rewards and punishment mechanism should be linked with performance measures of workers, which can improve the enthusiasm of the workers and the efficiency of the work as well. The small gardening company has established its own rewards and punishment mechanism, but they are not reasonable and could not encourage the workers being positive on their jobs. We suggest that a reasonable rewards and punishment mechanism could be linked to performance measures of workers and not according to the judgment of the top management of the small gardening company. There need to be clear rules in how to behave at work and how it should be performed. The measures of workers could be connected to rewards that have positive effects on the workers when performing a project. This can improve efficiency, ensure the quality of a project and reduce or even avoid unnecessary costs.

3. Seeking long term cooperation relationship

Setting up a long term win-win relationship with a stable and reliable supplier can increase the trust between the parties involved and reduce the costs of a small gardening company and improve efficiency. If applying to a JIT approach, this requires that the supplier deliver the right material in a right quantity with the right quality in the right time and by the right way. In the case, the generation of the extra transportation fee occurred because of the poor communication with the suppliers. Creating long-term trustful relationships with a stable and reliable supplier is a very important strategy for a small gardening company as well as for others.

4. Establishing an own brand

For a company, establishing an own brand is necessary to the development of the company now and in the future. Nowadays, many businesses in the gardening industry are performing small projects commissioned by a big gardening company in order to help them manage medium and large size projects. As an agent, a small gardening company has to do their best to make the customers satisfied with the quality of the project. In the long run, this can be a great help if wanting to set up a good image to the customers and to improve customers’ loyalty. In this way, the small gardening company, as in our case, can increase production incrementally. Normally,

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123 Ibid., p. 71
124 Srivastava, 2011, p. 340
the price of the product that are produced by the own company is cheaper, or could be better controlled than the price of product that are bought from the suppliers. So enlarging the production base of a small gardening company can help to reduce the cost of materials. Finally, propagandizing is an important part of establishing an own brand as well. One suggestion is that small gardening companies can use and improve the company website and have business card to make sure that the customers gradually improve their knowledge of their brand.

6.3 Contribution - summary

This article focused on a greening project that implemented by LvYu Gardening Co. LTD which is a small company in the gardening industry. From the case study, we know that there are several kinds of costs that were generated, like agency fee, support personnel fee and extra transportation fee. Several of these costs could be seen as unnecessary or could have been avoided if attention had been paid to cost management as presented in the literature. From the case study and the analysis, we have seen that small companies could improve efficiency and profit by:
1. Provide training opportunities in small firms order to handle unforeseen activities that might happen when being depending on a larger company.
2. Set up a reasonable rewards and punishment mechanism so the workers in the team know what rules that needs to be followed.
3. Seek long-term cooperation relationship to avoid uncertainties in relation to involved parties and to create trust.
4. Establish an own brand to increase the small company’s reputation and image on the market.

6.4 Further research

From our findings we have identified three suggestions for further future research.
In this thesis, we focused on the cost management using qualitative research approach. The authors’ first suggestion for further research is to additionally improve attention to the cost management requirements in small firms by doing quantitative research. This research approach could help to collect data accurately and especially if paying attention to a larger target group.
This thesis analyzed the cost management in the processes of the project except the part of cost budgeting before implementing the project. Cost budgeting is an important part of cost management. The authors’ second suggestion for further research is to take the cost budgeting into account, especially in the gardening industry as this business is rapidly growing.
Finally, this research just focused on one project that had done by a company in China. More companies could be included in research and in different projects which might produce more data, which also could be used to compare the findings of this research.
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# 8 Appendix A

**Questionnaire:**

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<th>Name</th>
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**Background information**
- What company do you work for? In what department do you work?
- What position do you have in the organization?
- How long have you been work in this company?

1. What kinds of costs are essential when the company implementing the project?

2. Except the essential costs, are there any other unnecessary costs when implementing the project?

3. Is a team as a mainly form to do the project in your company?

4. Do you need to pay so much money for an experienced designer that come from other company to coordinate with your designing team?

5. How to manage and control agency fees of your company?

6. How to manage and control the rental of equipment?

7. How does your company coordinate leadership, teamwork and project performance?

8. How to control the quality cost when your company implementing the project?

9. What are the existing problems of cost management in your company nowadays?

10. Does your company have any strategies to manage the cost of your company in the future?

**Thank you very much for your support!**
Appendix B

Interviewed people:

1. Zhong Zhou (Mr.), Business manager, SiJiQing Gardening Co. Ltd., telephone interviewed 2011-05-08, during 1 hour.

2. Pingdi Chen (Mr.), Manager, LvYu Gardening Co. Ltd., telephone interviewed 2011-05-09, during 1 hour.