The Impact of an Organizational Development Intervention (ODI) on Employee Inter-Functional Coordination and Employee Synergy to Foster Innovation in Organization: A Case Study of BST Co., Ltd. (BST)

Dusadee Navakunvichitr

A Dissertation Submitted in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy in Organization Development
Faculty of Graduate School of Business
Assumption University
Academic Year 2010

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The Graduate School/Faculty of Graduate School of Business, Assumption University, has approved this dissertation as a partial fulfillment of the requirements for the Degree of Doctor of Philosophy in Organization Development.

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Abstract

The business environment is changing and there are increasingly different environmental forces alerting organizations to foster innovation as a way to survive the turbulent situation and to thrive with accessible opportunities. Organization development interventions (ODI) which focus on the human social system of an organization have gradually become a famous mechanism needed for organizational vitality. In addition, market orientation has been well documented in the literature as the key provenance of organizational innovation. Most studies have investigated the relationship between market orientation as a whole, which consists of three elements: customer orientation, competitor orientation, and inter-functional coordination to organizational innovation. However, this research focused on determining the impact of an ODI on the improvement of employee inter-functional coordination and employee synergy in order to foster innovation in a multinational subsidiary organization which operates without governance of a single authority. It explored the degree of change on employee inter-functional coordination, employee synergy, and innovation in organization affected by the ODI. It examined the extent of change of employee inter-functional coordination and employee synergy related to the change of innovation within an organization. It critically reviewed the literature in the domain of organizational development and change, market orientation, inter-functional coordination, synergy, and organization innovation. This study followed an Action Research model and employed both quantitative and qualitative methodologies in obtaining and analyzing data.

Results of this research underline the importance and value of a planned ODI for organizational development. They indicate that an ODI which focuses on setting shared vision, setting shared goal, classifying clear roles and functions, establishing team performance evaluation and reward, arranging team-building activities, and enhancing employee social interaction has significant impact on the improvement of employee inter-functional coordination and employee synergy, while has marginal impact on improvement of innovation in an organization. This research also designated a positive relationship between employee inter-functional coordination and employee synergy to innovation within an organization. This study collected information from one organization in Bangkok, focused on a single element of marketing orientation, and found marginal increment in its dependent variable: innovation in organization. It recommends future studies to extend exploration in other organizational contexts, to explore the impact of an ODI on the other two elements of market orientation (customer orientation and competitor orientation) in relation to innovation in organization, and to consider factors such as time, risk, job requirement, level of intention in applying new ideas into practice, when designing ODI on employee inter-functional coordination and employee synergy to foster innovation in organization.

Keywords: Action Research, organization development intervention, inter-functional coordination, synergy, innovation.

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Chapter One

The Challenge – The Problem/Potential for Change

1.1 Introduction

The business environment is changing and there are different environmental forces alerting organizations in general to consciously adopt an organization development intervention (ODI) as a planned change to foster innovation in their organization in order to survive the turbulent situation and to thrive with accessible opportunities.

Within this chapter, the early parts discuss driving forces of changes. It starts with general environmental context, then zooms into context of the flavors and fragrances industry, and the organization of this study. Later parts of the chapter discuss the research problem, research objectives, research questions, hypothesis, scope and limitations of study, significance of the study, and present operational definitions of terms used in the study.

1.2 General Environment Context

1.2.1 Change and Globalization

Whether one realizes it or not, change is the constant thing/entity in this universe since it first exists. In the old days when change was not vivid, the routine is viewed as 'stable'. Nowadays, from the effects of modern technology, changes are huge and moving at a rapid rate – the routine is 'unstable', or 'dynamic'. Change introduces newness which can be either an opportunity or problem. At the present time, as illustrated by Friedman (2006) in The World is Flat that the world has entered the third

wave of globalization, the phenomenon which enables individuals to connect, collaborate and compete globally (The first wave was countries globalizing, the second wave was companies globalizing), change has changed its amount, and size and it has accelerated its speed, meaning that it can generate timely huge opportunities or serious problems to organization because organizations are open systems affected by its external environment. Therefore, the way organizations respond to things/events cannot be the same as before.

1.2.2 Effects of Globalization Change

Globalization can both force and facilitate growth of multinational organizations. The changing global environment, which usually relates with capital, labor skills and talents, technology, politics, economics, and social conditions, offers organizations opportunities in new markets while it often suggests threats in the home market and forces and facilitates various organizations to expand business by establishing subsidiaries in foreign countries.

Multinational subsidiary organizations are clearly part of their mother organization. Many multinational enterprises stress integrating mechanisms to co-coordinate and control subsidiaries via global strategies. This usually results in higher centralization by the head office holding greater control over subsidiaries. It leaves little decision-making authority at the subsidiary level. Accordingly, multinational subsidiaries are engaged in paradoxical roles: as mechanisms of their parent organizations and as competitors in local markets. Multinational subsidiaries can be seen as warriors in today's highly dynamic and competitive environment.

Due to the highly competitive situation under globalization, cost saving programs are considered necessary for various organizations. Organizational costs and expenses are usually tightly monitored. Organizational leaders and managers are not hesitant to implement cost reduction where possible. The top management position in multinational subsidiary organizations (which is viewed as middle management from the multinational enterprise's perspective) is not perceived as necessary in many multinational organizations as multinational subsidiary organizations are not required to create their own policy, strategy, but are demanded to follow direction, guidance, strategy set by parent companies. In addition, each and every functional head/division head at the subsidiary level can be asked to report directly to their functional manager/unit manager at headquarters. This phenomenon leaves a subsidiary organization operating with no governance by a single authority. An image of such an organization looks like having only pillars without a roof, each and every different function focuses on the objectives of its own function, less on the performance of the whole organization, resulting in higher requirement on coordination among different functions/units in order to efficiently achieve the overall objectives of organization.

Along with the growth of business world, there is an increasing global concern on ethical business practice and business social responsibility, old business norms are changing and there are demands for higher levels of good governance, ethical practice, and corporate social responsibilities of organizations. Managers and leaders of organizations are required to seek proper practices, to lead and manage positive change in organizational resources through adaptation and resilience in order to achieve economic

business objectives while committing to high ethical standards and high social responsibility.

Subsequent to the above discussion, there is a new level of challenge for multinational subsidiary organizations in this more complex and interdependent world where there are various fields of forces with joint causal effects on each other. It leads to the understanding that innovation is needed for multinational subsidiary organizations as well as all other types of organizations, if they are to grow or even to survive.

1.3 Flavors and Fragrances Industry Context

Flavors and fragrances businesses are operated under the Monopolistic competition industry structure, which mean the market consist of many players but only a few key players exist. Capital investment is rather low; barrier of entry to this industry is relatively low. It is easy to enter into the industry, but it is very difficult to become a key player. This is because big customers in this industry usually have a policy to select only three to four of the most capable and well-known big flavor/fragrance companies to work with. A company's image along with its past success record in offering quality products to customers are the two important factors for the company to be selected as an approved supplier by big potential customers. Flavors and fragrances business players are promoting their creative capabilities and services to strengthen the image of their company.

The business environment of the flavors and fragrances industry at global, regional, and within Thai market are more or less facing the same phenomenal driving forces in general. Flavors and fragrances businesses at all levels are increasingly

pressured to further grow sales and maintain profit margins as the market place has becoming a brutal battleground fighting for market share and profit among players.

Recent evolving environmental patterns affecting flavors and fragrances businesses can be summarized as follows:

- *Dynamic of market categories* Flavors and fragrances are sold into several end products, in several market categories e.g. potato chip, rice cracker, and instant noodles in the savory category; soft drink, milk, coffee, tea, and fruit juice in the beverage category; deodorant, facial and body lotion/cream, and talcum powder in the personal care category; shampoo, hair conditioner, and hair styling in the hair care category; bar soap and shower cream in the personal wash category; detergent powder, detergent cream, detergent bar, liquid detergent, and fabric softener in the fabric care category; dish-wash, kitchen cleaner, floor cleaner, window cleaner, air freshener, and joss-stick in the home care category. Growing and declining rates of these markets in different geographic areas are more highly dynamic than ever expected.
- *Fluctuation of raw material costs* Major raw materials of flavors and fragrances are petrol-based and agricultural-based. The overall market price pattern of market prices of both petrol-based and agricultural based products has been increasingly fluctuating according to the market demand/supply. It is very difficult to make accurate prediction on market price of these products.
- *Quick and immense change on size, potential, and purchasing power of customers* Resulting from competitive advantage, customers of BST, which are multinational companies, are getting stronger and are eating up local customers,

which are weaker in general. Merging and acquisition are also realized. This phenomenon has resulted in fewer customers, but more powerful customers holding higher purchasing power. It suggests higher risk and higher opportunity to flavors and fragrances players. Losing or winning one big potential customer can have significant effects on a company's market share and profit. The higher purchasing power of customer also threats the profit margin of the overall industry, especially on sales percentage because flavors and fragrances companies are forced to sell products at thinner margins but with higher level of services.

- *Shorter product life cycle* Higher levels of shifts and swings of consumer preferences have caused shortened product life cycles of both flavors and fragrances. Manufacturers of various consumer goods need to respond to the market faster and more frequently. This aspect of market evolvement resulted in the shorter life of flavors and fragrances. New flavors and fragrances need to be introduced to customers on an accelerated and more frequent pace replacing existing products. This pattern demands flavor and fragrance companies to work at faster speeds and spend more effort and resources to just defend existing business. However, it also simultaneously provides the industry players opportunity to take business from weaker competitors.
- *Changing and increasing rules, regulations, and laws from related authorities* There are changing and increasing rules and regulations from various authorities related to food, cosmetic, fragrances, chemicals e.g. Halal, FDA (Food & Drug Association), IFRA (International Fragrances Association), OSHA (Occupational Safety and Health Administration). As a result, the list

of flavor and fragrance raw materials and working process are often revised. Flavor and fragrance companies need to spend significant amount of time and effort reworking existing flavor and fragrance formulas and adjusting its business practices to comply with new rules, regulations, and laws. Although this condition seems to be a threat for flavor and fragrance companies, it is also open for industry players to gain business from weaker, slower competitors.

In conclusion, the environment of the flavor and fragrance industry has become highly dynamic with lessened market visibility. In response to this ever-changing environment, organizations cannot just rely on past successes but need to tap into innovativeness of its human capital/resources for their survival. Various players have constantly seen changes to its management, re-structuring, re-directing strategies, and re-allocating resources. Some companies have decided to implement business downsizing, to sell out part(s) of their business. Various industry players have taken the merger and/or acquisition route to survive. There are some companies dying away. Still, some companies continue to grow.

1.4 BST Context

1.4.1 History and Background

BST is a Thai subsidiary of one of the world's leading flavor and fragrance creators and manufacturers, which having sales, manufacturing and creative facilities in over thirty countries worldwide. BST was established with the objective of being a sales office to penetrate and grow sales of its flavors and fragrances in the Thai market.

Accordingly, the primary obligation of BST is to sell flavors and fragrances to customers in Thailand for domestic consumption as well as for export. Potential customers of BST are manufacturers or traders of consumer goods which involve taste and sense, some of these are: cologne, deodorant, hair care, bar soap, shower gel, detergent, fabric softener, air freshener, dish wash, household cleaner products, instant noodle, snacks, beverages, dairies, oral care, sweets, tobacco, and pharmaceuticals. Today BST consists of eighty-one employees and is ranked as one of the top five biggest flavor and fragrance companies in Thailand in terms of market share.

1.4.2 Vision, Mission, Principles

BST shares the same vision, mission, and principles with its mother company and follows strategy and structure designed by its mother company.

Vision: We create unique taste and scent experiences people love.

Mission: We focus on customers, on people, and on innovation.

Focus on Customers: We will create unique, superior and economically competitive products through world class integration of: flavor/fragrance expertise, consumer insights and brand understanding.

Focus on People: Our people are critical to our future.

- We will attract, develop, and retain the best talent from the global community.
- Each employee will be challenged and supported in their efforts to grow as individuals and to contribute to the success of organization.
- We will succeed by working as superb teams.
- Advancement will be based solely on merit.

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Focus on Innovation: We will foster a culture of innovation and demonstrate continuous improvement in everything we do.

Principles:

Trust Our customers can trust us. We will always protect and respect their brands. We will always act with integrity and respect confidentiality.

Quality We are committed to providing superior quality products to our customers. We will develop and maintain a supply chain that sources, processes and delivers products that meet our customers' specifications.

Uniqueness Creativity and innovation are the foundation of our competitive advantage.

Market Insight We will always strive to be at the forefront of Consumer and Brand understanding.

Customer Service We will offer superb service to our customers.

Integrity Our people are honest, ethical and moral.

Respect We will demonstrate respect for all people.

Transparency Open, honest communications are required from all employees and supervisors.

Openness We will always value and invite diversity of opinion and feedback from our colleagues.

Positive Attitude We are positive, energetic and optimistic and see challenges as opportunities.

Make Choices We will make informed decisions and clear choices consistent with our goals and strategies.

Sustainability We will build a sustainable business that fosters continuous improvement in environmental and human resources practices in our supply chain.

Operate Responsibly. We will abide by laws pertaining to business practices such as anti-trust, securities, health and safety and similar regulations.

Good Neighbor We will be a good neighbor and contribute to our communities.

1.4.3 Strategy

BST business is led by the Commercial Department. The Operating plan is set by the Commercial Manager of the flavor division and the Commercial Manager of the fragrance division. The strategic plan of BST, following its mother company, is to focus on revenue growth and profit margin. Revenue growth is to be achieved via product differentiation within limited costs by focusing on big potential customers in high potential product categories. To strengthen product creativity, the Commercial team needs to continuously update their knowledge of consumer tastes and scent preferences in their market. The profit margin is to be achieved by cost leadership in production and overall operating process. This applies to all supporting departments: Production, Finance, Human Resources, Consumer Insight, IT, and Marketing.

1.4.4 Structure

The organization structure of BST has evolved several times in line with the continuous re-structuring at global and regional levels. The current structure is a functional type as shown in Figure 1. There are 10 separate functions/divisions: Finance,

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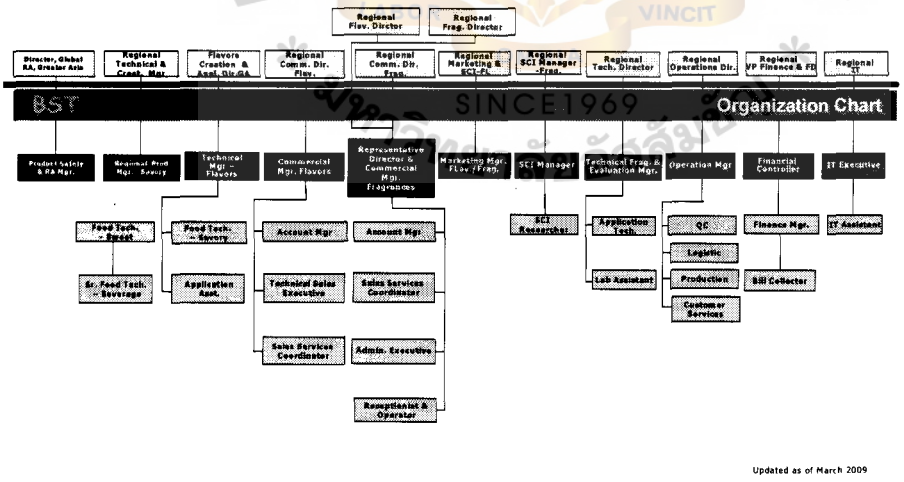
Information Technology (IT), Sensory Consumer Insight (SCI), Marketing, Technical Flavor, Technical Fragrance, Commercial Flavor, Commercial Fragrance, Operation, and Product Safety and Regulatory Assurance (PSR). A remark should be made that the 'Regional Product –Savory' in the chart is actually one of the flavor technical managers. According to the current structure, a decision affecting each particular division is made by the functional manager of that particular division. Decisions which affect the general organization, especially when concerned with legal aspects, need to be made by the Representative Director. The Division head of each and every function reports directly to his or her boss at the regional level without any reporting line to the Representative Director. Under the formal organization chart, there is no single top position in BST responsible for all functions.

Figure 1: BST Organization Chart



1.4.5 Performance Measurement and Rewards Systems

BST tightly monitors performance to goals. Functional heads are to prepare monthly report on their responsible division.

Performance Appraisal Systems: The company requires managers to conduct official appraisal twice a year – once at the end of June, and the final one at the end of December. The Company's standard annual performance appraisal form is available for evaluations. Evaluation results affect the annual salary adjustment.

Reward Systems: There are two main types of rewards within BST: Bonus and year end salary adjustment. The bonus system is separated by job grade: the lower job grade and the higher job grade.

Criteria for bonus at the lower job grades are based on the following:

50% of sales and profit performance of BST (the local level)

50% of sales and profit performance of the regional level

Criteria for bonus at the higher job grades are:

25% of functional sales performance of the mother company (the global level)

25% of functional controllable expense performance of the mother company (the global level)

15% of functional sales performance of the regional level

15% of functional controllable expense performance of the regional level

10% of functional sales performance of BST (the local level)

10% of functional controllable expense performance of BST (the local level)

Adjustment on salary and fringe benefits is based on individual performance.

Criteria for the employees' performance appraisal are varied by job function but are mainly based on these criteria:

70% of financial performance

10% of customers focus

10% of people focus

10% of innovation

Sales, market share, profit, and customer satisfaction are primary key performance indicators of the organization.

1.4.6 Recent and Current Performance

BST has a significant portion of market share, with sales growth slightly higher than overall market growth rate. Delivery service is 99% on time with less than 1% quality rejection. BST achieved high level of customers satisfaction and often receives "Supplier Award" from its key customers. Employees' satisfaction is at a satisfactory level as there is pretty low turnover rate and there are plenty of long-tenured people. Due to effects from its higher competitive and dynamic industrial environment, the profit margin of BST shows an eroding trend. Yet, the recent and current performance of BST is at an acceptable level.

1.4.7 Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis

For the purpose of organization assessment in this study, the researcher prepared a SWOT analysis of BST. Details of the analysis are described below.

1.4.7.1 Strengths

BST has several areas of strengths as follows:

- *Company image* The company name is well-known and perceived positively within the industry.
- *Mission* Having a clear mission. Mission of the company illustrates the company's focal points: customers, people, innovation.
- *Business strategy* Having a clear and valid sales strategy contributes to high business win rates.
- *Healthy financial position* BST has a strong balance sheet, positive income statement, and positive cash flow.
- *Global and Regional support* BST is strongly supported by its mother company at global and regional levels on high level strategy, quality products, and global market information.
- *Relationship with customers* Commercial persons of BST are holding strong and close relationships with key contact persons of potential customers.
- *Service quality* BST often receives 'supplier awards' from its key customers. Employees of BST have a "customer as king" attitude. They are determined to render good service to customers.
- *People* Employees of BST are competent, compliant to company policy, and highly competitive. They are passionate in their work.

1.4.7.2 Weaknesses

Weaknesses of BST are:

- *Low level of innovation* Employees of BST are trying to serve customers better by working harder, quicker, and sometimes by sacrificing the company profit margin to make customer happy. Employees of BST rarely quest for a new way of working to improve services or products that can lead to increase in performance of the organization.
- *Conflict between divisions* Following the functional structure and reward system of organization, employees of BST focus on divisional performance rather than organizational performance. Many decisions are made without enough relevant information.
- *Speed of service to customers* Compared to key competitors in the market, BST takes slightly longer time in delivering new products to serve customers. This point can be seen as linked to the low level of innovation in the organization.

1.4.7.3 Opportunities

- *Overall positive market growth* Market expansion is the critical opportunity to BST as well as to all players in flavor and fragrance businesses. In general, the growing market offers opportunities to industry players to grow along without the need to cannibalize each other unless organizations want to expand one's market share.
- *Market dynamic* The high level of market dynamic offers to BST both opportunities and threats. From the opportunities perspective, it provides chances for BST to take advantage of the flux of market place by gaining

market share from competitors. This is under the condition that BST is better, stronger, faster, and more ready to grasp the market than its competitors.

1.4.7.4 Threats

- *Market dynamic* From the threats perspective, there is the possibility that the highly dynamic market will cause BST to loose its existing business to competitors, if BST is weaker than its competitors.
- *The world financial crisis and the national political dispute* In spite of the general continuous expansion of market potential, its overall growth rate is at declining speed. Although market demands in some product categories continue to grow, demands in some product categories are stagnant, and demands in some product categories are shrinking. The poor economic situation as well as political unrest are the major factors causing the current drain on consumer disposable income and the lower confidence level of consumer spending.

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1.4.7.5 SWOT Analysis Conclusion

BST operates in the survival of the fittest environment – growing and dynamic market. BST has a strong business foundation to achieve higher sales and profit because it has clear business focal points, has a valid strategy to attain goals, and has strong business support – healthy finance, positive image, valuable information, and competent people for achieving sales and profit targets. Challenges of the company are the tougher market competitive situation in the highly dynamic market place, where by things are

highly unstable, profit margin is eroding, overall market growth is declining, and demand in some market segments is drying (could be for just a certain period – until the recovery of global financial economic crisis and local political situation). In order for the company to achieve better performance, it needs to focus first on what it can control which are the strengths and weaknesses. In order to further reinforce strengths of BST, it is worth the attention and efforts of BST leader/managers to dissolve the weaknesses of BST in speed of services to customers, conflict between divisions, and lack of innovation.

1.4.8 Summary of BST Context

Based on business results, customer feedback and company observation, BST is customer oriented and competitor oriented, but innovation is missing in BST. Employees of BST are working in their own silos, focusing on their own divisional performance. There is a low level of cross functional information sharing and a slightly slow speed in serving customers.

1.5 Problem Statement and The Need for Action Research

Being a subsidiary organization, BST is required to align its mission to its mother company which emphasizes - customer focus, people focus, innovation focus. Resulting from the organization assessment, customer focus and employees focus are reflected in BST customs and practices. What is still lacking from the mission statement is innovation focus. In addition to the requirement from the mission statement, by taking into consideration the sign of profit erosion in terms of percentage to sales, and in realizing the highly dynamic market place of flavors and fragrances, the existing practice

of BST employees will not be sufficient to cope with the pressure that rapid and continuous change would place on it. Accordingly, the researcher saw the need to implement a planned change program to promote innovation in BST, for the organization to comply with its mission that would enable it to renew itself in a synchronizing pace with its changing environment to reap the best from its environment better than its competitors, in order for it to continue survival, to stay healthy, to further pursue and develop its purpose in a sustainable approach. Innovation is considered as a critical driver to future success of BST as it moves forward on the business journey. The organization assessment also suggested that teamwork between different functions within BST was rather low and this could affect innovation in BST. The problem statement of this study is therefore established as:

To determine the impact of an organizational development intervention on the improvement of employee inter-functional coordination and employee synergy in order to foster innovation in BST.

In response to the problem statement, a research project is needed to solve the problem. Action Research as described by Coghlan and Brannick, (2002) and Cummings and Worley (2005) is chosen as research model. Action Research was adopted as the change model of this study for the following reasons:

- This study is concerned with a problem which seeks a practical approach in the real context over which the researcher does not have full control and cannot be duplicated elsewhere. It is unique to itself and is best studied in its own context. It requires experiential learning, not just conceptual knowledge, therefore it is well matched with the 'learning by doing' concept and the aim

at solving an immediate problem situation in particular problem domains/contexts of Action Research.

- This study recognizes the necessity of employee involvement in order to tap into their ideas and productive capacities, to minimize their resistance to change while enhancing their commitment and willingness to change. This requirement corresponds to the principle of action research concerning participation, collaboration between researchers and subjects as co-researchers.

The action research model focuses on planned change as a cyclical process in which initial research about the organization provides information to guide further study for the new cycle of action research. It can enable employees of BST to continue the efforts in improving their workplace.

1.6 Research Objectives

The five objectives of this dissertation research project are:

- To describe the current situation of BST.
- To determine the levels of employee inter-functional coordination, employee synergy, and innovation in BST at the starting point of the research and at the finishing point of the research.
- To design, develop and implement organizational development interventions (ODI) to enhance employee inter-functional coordination and employee synergy in order to foster innovation in BST.

- To determine the impact of an ODI on employee inter-functional coordination; employee synergy, and innovation in organization.
- To determine the relationship between the joint effects of employee inter-functional coordination and employee synergy to innovation in organization.

1.7 Research Questions

Subsequent to the problem statement and research objectives, the following are questions on this research project:

- To what extent, if any, did the employee' inter-functional coordination change after ODI?
- To what extent, if any, did the employee' synergy change after ODI?
- To what extent, if any, did the innovation in organization change after ODI?
- To what extent, if any, did the change of employee inter-functional coordination and employee synergy relate to the change of innovation in organization?

1.8 Research Hypothesis

In the current global marketplace where there is more intense competition and less certainty, many organizations realize the importance of innovation for competitive advantage. Inter-functional coordination is defined as one of the three components of market orientation (the other two components are customer focus, and competitor focus). Academics have rediscovered that market orientation can be used as a tool for driving innovation in organizations. Increase in market-orientation has positive relationship to

innovation in organization. Subsequently, employee inter-functional coordination as an important element of market-orientation is related to innovation in organization. Inter-functional coordination is discussed in literatures more on the task and skills aspect of team. But in reality, a team is made up from people, and behaviors of people are affected by one's emotion and feelings rooted from one's assumptions and attitude. Synergy as cited and suggested in literatures on its relation to attitude of team members and as the condition necessary for team to realize teamwork is therefore, included in the study as the attitude/spiritual aspects of team to conjoin with inter-functional coordination to mutually foster innovation in organization. Hypotheses of this study are then outlined as:

H1o: There is no difference in employee inter-functional coordination before and after ODI.

H1a: There is a difference in employee inter-functional coordination before and after ODI.

H2o: There is no difference in employee synergy before and after ODI.

H2a: There is a difference in employee synergy before and after ODI.

H3o: There is no difference in innovation in organization before and after ODI.

H3a: There is a difference in innovation in organization before and after ODI.

H4o: There is no relationship between employee inter-functional coordination and employee synergy to innovation in organization.

H4a: There is a relationship between employee inter-function coordination and employee synergy to innovation in organization

The above list of hypotheses might be rephrased concisely as - The researcher wanted to investigate whether ODI would affect employee inter-functional coordination, employee synergy, innovation in organization, and also wanted to investigate whether employee inter-functional coordination and employee synergy would influence innovation in organization.

1.9 Definition of Terms

- *Clarity of roles and functions:* The quality of easy to perceive or understand 1) the proper expected social behavior of an individual, 2) the action for which a person is particularly fitted or employed.
- *Collaboration:* The interaction where two or more people jointly work together on common goals.
- *Creativity:* The discovery of a new connection. Creativity occurs when people are able to connect different frames of reference in ways that result in creating or discovering something new.
- *Employees:* A person who works for another in return for whether direct or indirect financial and/or other compensation. For this study an employee may work on an hourly, daily, monthly, or annual wage basis whether with headcount or without headcount. Receiving compensation directly from BST or receiving compensation via an outsourcing company.

- *Employee inter-functional coordination:* In this study, the concept of inter-functional coordination is explained by cross-functional teams (CFTs). Employee inter-functional coordination stand for employees from different job functions working together for a goal or effect.
- *Employee Synergy:* Synergy can be explained as the whole is greater than the sum of individual parts, or "2+2=5". Employee synergy stand for the cooperative or combined action occurring when organizational employees work together such that the total effect is greater than the sum of the effects taken independently.
- *Implementation:* the realization of an application, or execution of a plan, idea, model, design, specification, standard, algorithm, or policy.
- *Leadership:* A process of influence exercised when institutional, political, psychological, and other resources are used to arouse, engage, and satisfy the motives of followers (Cummings & Worley, 2005).
- *Innovation in organization:* The act of introducing something new that generate profitable competitive advantage for organization.
- *Sense of team identity:* The perception of person on the cognitive, behavioral, and emotional alignment of team members with each other (Lembke & Wilson, 1998). Sense of team identity unifying team members into one socially identifiable whole, it also prevents individual team members from being distracted by individual goals which could be prioritized over team interests.

- *Shared goal:* The alignment of team members' basic aims or the work performance which team members jointly strive to achieve.
- *Shared vision:* The alignment of team members' desired value. It is a vehicle that inspires team members and gets them to pull together for cooperative action.
- *Strategic perspective:* Viewpoint which relate to a plan of action defining how an organization will use its resources to gain profitable competitive advantage in the larger environment. It typically includes choices aim to fulfill mission or related objectives of organization.
- *Team reward system:* An approach to offer satisfaction or gratification base on performance of teamwork.
- *Unity in diversity:* The feeling as one from a group of people with mix of gender, age, disabilities, cultures, ethnic backgrounds, or lifestyles that characterize the organization's workforce and potential labor pool.
- *Values*: Relatively permanent ideals (or ideas) that influence and shape the general nature of people's behavior (Cummings & Worley, 2005).

1.10 Significance of The Study

This research project focus on human change management process to provide empirical evidence on the relationship between employee inter-functional coordination, employee synergy and innovation in a multinational subsidiary organization, is considered important for both academic reason and practical reason:

On theoretical importance, the integration of study's content, context, and process make this study original and can add new knowledge to related literature with regard to 1) the impact of ODI over employee inter-functional coordination, employee synergy, and innovation in organization 2) the impact of employee inter-functional coordination and employee synergy over innovation in organization.

For practical reason, the study provides three benefits: 1) it helps BST to be able to comply with its mission 2) it helps employees of BST to facilitate the company to perform better, and to be able to continuously adjust itself to its changing environment 3) drawing from the content and process of this research it will urge employees of BST to realize the power of "connectivity" to be more productive, to survive, to develop and grow in the complex, uncertain, and constantly changing world.

1.11 Scope and Limitations of The Research

1.11.1 Scope of Content

This study focus on organization development and change at the transformational level so for the organization to constantly innovate to renew itself at the compatible changing pace of its environment. Innovation could be studied through an almost infinite set of variables and theoretical lenses. However, this study narrows its focus to investigate the impact of ODI on employee inter-functional coordination and employee synergy to facilitate innovation in organization.

1.11.2 Scope of Context

The study focuses on BST which is the multinational organizational subsidiary with no single authority, operating in flavor and fragrances business industry within Thailand. The ODI process period was during the months, end of August to end of December, 2009. The interventions focus on employees of BST in general, not involving structure nor strategy.

1.11.3 Scope of Process

This study was conducted using action research as change model, although there are other different organization planned change models available. These are Strategic Management, Shewhart cycle or Deming cycle or Plan-Do-Check-Act cycle, McKinsey 7S Model, Lewin's Planned Change Model or Lewin's Freeze Phases, The Positive Model.

1.11.4 Limitations

For purpose of confidentiality, a dummy name is used on the organization of study and its mother corporation. Sample size of survey for comparing pre and post ODI is limited to 51 respondents as this study is an action research of one company, so the researcher looks only at employees of the organization of study.

Chapter Two

Review of Literature, Conceptual Framework, And Action Research Framework

As suggested by the research topic, investigations of this study aim to describe the current situation of BST; to determine the levels of organizational employee inter-functional coordination, employee synergy, and innovation in BST; to design, develop and implement ODI to foster innovation in BST through the effects of employee inter-functional coordination and employee synergy; to determine the impact of ODI on employee inter-functional coordination, employee synergy, and innovation in organization; to determine the relationship between joint effects of employee inter-functional coordination and employee synergy to innovation in organization; to deploy action research model as change approach. Therefore, it is imperative to review literatures on following topics: organizational development and change, market orientation, inter-functional coordination, employee synergy, organization innovation, which are considered center of the study content and process. Literature review in this study served two purposes: 1) to ensure that the proposed research topic is indeed original and possible to generate added knowledge to literature of related topics, 2) to rely on existing related knowledge as base and guidance in conducting and pursuing the study.

2.1 Organizational Development and Change

2.1.1 Organization as Open System

An organization is made up of people (Brown & Harvey, 2006). It is formed to serve some specific functions per aspiration of its founder. In an organization body, persons are associated to achieve some objective by performing some functions or work. Therefore, organization can be described as a collection of human objectives, expectations, and obligations. It structures human roles and relationships to attain its ends (Moran & Harris, 1981).

System thinking has its roots in the natural world with many of its principles grounded in the fields of biology and ecology. System thinking is about looking at the whole entity, instead of looking at just the parts. Importantly, it is about looking at the relationship between the parts and the whole and understanding the effect that a change on one part will have on the other parts (Dundon, 2002). According to Senge (1997), the greatest benefit of system thinking is that it helps distinguish high from low–leverage changes in highly complex situations. In fact, the art of systems thinking lies in seeing through complexity to the underlying structures generating change. System thinking does not mean ignoring complexity, rather it means organizing complexity into a coherent story that illuminates causes of problems and how they can be remedied in sustainable ways.

There are two basic types of systems: open and closed (Brown & Harvey, 2006). A closed system is one that is self contained, isolated from its environment. It cannot freely exchange energy, information, or matter with its environment (Anderson & Anderson, 2001). An open system, however, has a two-way relationship with its

environment. Open systems import energy, matter, and information from its environments. It continually renews the system's capacity for change and transformation. Machines are closed systems but living systems are open systems. Human systems are inherently open (Anderson & Anderson, 2001). Open system approach viewed organization as a connected part of its environment. Organizations don't have complete control on its own behavior but its behavior is influenced in some way by its external forces. Therefore, understanding how external forces affect the organization can help explain some of its internal behavior (Cummings & Worley, 2005).

Figure 2: Organization as an open system

Source: Modified from Cummings, T. and Worley, C. (2005). Organization Development and Change. 8th e. (Ohio: Thomson South – Western) p. 86.

Any organization system is composed of three related parts: input, transformation, and outputs, as shown in Figure 2. Inputs are acquired from the system's external environment and consist of human or other resources such as information, energy, and materials. Transformations are the processes of converting inputs into outputs. This covers both social components – people and their work relationships and technological

components – tools, techniques, and methods of production or service delivery. Outputs are the results of what is transformed by the system and sent to the environment. The idea of boundaries helps to distinguish between systems and environments. Feedback is information regarding the actual performance or the output results of the system which can be used to control the future functioning of the system. Open system accepts Equifinality concept. Equifinality concept explains that similar results may be achieved with different initial conditions and in many different ways. This concept suggests that managers can use varying degrees of inputs into the organization and can transform them in a variety of ways to obtain satisfactory outputs (Cummings & Worley, 2005).

Organizations today are emphasizing the need to manage in a holistic, systematic manner, avoiding compartmentalizing people in functional silos. People are beginning to be seen not just as machines, or pairs of working hands, but as whole individuals – hands, brains (left as well as right), and bodies, with families and other considerations outside the job (Chandra, 1995).

Dundon (2002) argued that system thinking is important to Innovation Management because it can help everyone with the following:

- To see themselves as part of a larger enterprise with a common purpose. It is helpful to see how the parts of the whole organization (departments, functions, groups) can work together to set project priorities and allocate resources to achieve a common goal.
- To see how one change can affect many other parts of the system. Being a systems thinker means understanding how decisions are being made, how all

decisions are interrelated and how, if an organization is to be successful, all decisions link with and support the organization's overall strategic direction.

- To see the world and its opportunities. The world is becoming more connected with the advent of Internet, enterprise systems, and greater collaboration between organizations. The more connections one can see and experience through systems thinking, the higher the probability that one can find creative and useful ideas.

2.1.2 Organization Development

Change is inevitable, change comes naturally as well as being planned and managed. Concept of planned change focus on how change can be implemented in organizations (Cummings & Worley, 2005). Managing change has become a challenging issue of today management (Cummings & Worley, 2005). In searching for ways to manage an increasingly complex technology and more sophisticated workforce in this chaotic world, managers need long-term efforts to prepare for future organizational requirements (Brown & Harvey, 2006).

OD is an approach which focus on improving an organization's self-renewal process so that managers can quickly initiate changes to the corporate culture to meet emerging new problems. OD seeks to help organization accomplish its mission in a more efficient way because the value system underlying OD approaches emphasizes increasing individual growth and effectiveness by creating an organizational climate that develops human potential while achieving organizational goals (Brown & Harvey, 2006).

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OD activities rest on assumptions about people as individuals in groups and in total systems; about the transactional nature of organization improvement; and about values. These assumptions tend to be humanistic, developmental, and optimistic. Assumptions and values held by change agents need to be made explicit both for enhancing working relationship with clients, and for continuous testing through practice and research (Brown & Harvey, 2006).

According to Anderson and Anderson (2001), "Organization development is a system-wide and values-based collaborative process of applying behavioral science knowledge to the adaptive development, improvement, and reinforcement of such organizational features as the strategies, structures, processes, people, and cultures that lead to organization effectiveness."

OD efforts are planned, systematic approaches to change. They involve changes to the total organization or to relatively large segments of it. The purpose of OD efforts is to increase the effectiveness of the system and to develop the potential of all the individual members. (Brown & Harvey, 2006).

OD is compared and contrasted to change management and organization change in following ways:

- OD and change management both address the effective implementation of planned change. They are both concerned with the sequence of activities, processes, and leadership issues that produce organization improvements. However, they differ, in their underlying value orientation. OD's behavioral science foundation supports values of human potential, participation, and development in addition to performance and competitive advantage. Change

management focuses more narrowly on values of cost, quality, and schedule. OD involves change management, but change management may not involve OD (Cummings & Worley, 2005).

- Although both organization change and OD aim for improvement of organization, organization change is a broader concept than OD. While OD emphasizes development of human potential to achieve organizational goals, organization change can apply to any kind of change, including technical and managerial innovation, organization decline, or the evolution of a system over time (Cummings & Worley, 2005):

Different authors suggested different steps in OD process (Cummings & Worley, 2005; Brown & Harvey, 2006; Robert, 1979), however content is similar that OD process can be separated into three stages: 1) the diagnostic stage or pre ODI stage, 2) the development stage or ODI stage, 3) the evaluative stage or post ODI stage.

Different models of planned change are available such as Strategic Management; Shewhart cycle or Deming cycle or Plan-Do-Check-Act cycle; McKinsey 7S Model; Lewin's Planned Change Model or Lewin's Freeze Phases; The Positive Model, Action Research Model (Cummings & Worley, 2005; Namara, 1997-2008).

One of the critical barriers to the success of all types of organizational planned change is employee resistance to planned change. Therefore employee change resistance has become the common concern of whoever leading planned change. (Cummings & Worley, 2005). When employees have only a narrow territory and a narrow scope of action, they are more likely to resist change, because change threatens the control they have over their territory and they do not know what to do. When people feel resistant to

change due to their territory is being threatened, organizations can reduce people's resistant feeling by giving them broader territories, by putting them on teams, and by building those important cross-functional links (Kanter, 1995). A team can be a powerful agent of change in organization (Convey, 1994). Teams can powerfully and systematically tackle major problems in implementing significant organizational change, even in the face of tremendous opposition (Convey, 1994). To allow employees to work in team and engaged in participation of planned change, the Action Research model is deployed in this study as the change method. The next section of literature reviews, therefore, focuses on Action Research.

2.1.3 The Action Research Model

2.1.3.1 Definition and purpose

Action research has been traditionally defined as an approach to research that is based on a collaborative relationship between researcher and client aimed at both solving a problem by planned change and generating new knowledge (Coghlan & Brannick, 2002; Cummings & Worley, 2005). In relating to OD, action research has been adopted to focus mainly on planned change (Cummings & Worley, 2005). It is essential to understand the ethical framework and values and norms within which action research is used in a particular context (Coghlan & Brannick, 2002).

Action research is deemed appropriate when the research topic is an unfolding series of actions over time in a given group, community or organization, and the members wish to study their own action in order to change or improve the working of some aspects

of the system, and study the process in order to learn from it (Coghlan & Brannick, 2002).

2.1.3.2 Steps in Action Research

Different researchers proposed different steps in doing action research. Cummings & Worley (2005) suggested eight main steps in action research consisting of the following:

Step 1: Problem identification.

Step 2: Consultation with a behavioral science expert.

Step 3: Data gathering and preliminary diagnosis.

Step 4: Feedback to a key client or group.

Step 5: Joint diagnosis of the problem.

Step 6: Joint action planning

Step 7: Action.

Step 8: Data gathering after action.

Coghlan and Brannick (2002) presented an action research cycle comprising a pre-step, context/purpose and four basic steps diagnosing, planning action, taking action, and evaluating action.

Namara (1997-2008) suggested four phases:

Phase 1: Clarifying expectations and roles for change process

Phase 2: Joint discovery to identify priorities for change

Phase 3: Joint planning of OD activities to address priorities

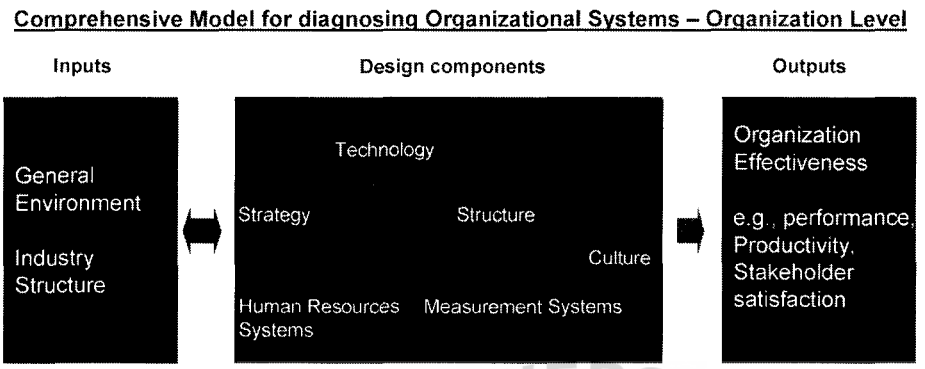
Phase 4: Change management and joint evaluation

Rothwell, Sullivan, and McLean (1995) illustrated steps in action research as consisting of entry, followed by a cycle of start-up, assessment and feedback, action planning, intervention and evaluation.

Following the steps suggested by these different researchers, the general steps in doing action research could be summarized to have five phases: Problem identification, diagnosing the organization, planning for action, taking action, and evaluating action.

- *Phase 1 - Problem identification:* The purpose of this phase is to sense and determine the purpose to research either the problems or the areas that need improvement. Once problems is identified, the researcher need to be clear which one of the problems is to be focused on, why there is need to solve this particular problem, and what will happen if the problem remains unsolved (Winslade & Monk, 2006).
- *Phase 2 – Diagnosing:* Data gathering, analyzing, and feeding back data are the central change activities in diagnosis (Cummings & Worley, 2005). Data can be gathered through interviews, observation, survey instruments, or such archival sources as meeting minutes and organization charts (Cummings & Worley, 2005). Organization members should be invited to jointly diagnose the organization (Coghlan & Brannick, 2002). Cummings & Worley (2005) described the diagnostic framework for organizations based on an open-system theory as illustrated in Figure 3.

Figure 3: Comprehensive Model for Diagnosing Organizational Systems at Organization Level



Source: Cummings, T. and Worley, C. (2005). Organization Development and Change. 8th e. (Ohio: Thomson South – Western) p. 89.

Inputs: The general environment and industry structure represent the external elements and forces that can affect the attainment of organization objectives.

Design components: There are five components for diagnosing the overall organization strategy, technology, structure, measurement systems, and human resources systems; and there is an intermediate output culture.

- A strategy represents the way an organization uses its resources to achieve its goals and gain a competitive advantage.
- Technology is concerned with the way an organization converts inputs into products and services.
- Structure describes how attention and resources are focused on task accomplishment.

- Measurement systems are methods of gathering, assessing, and disseminating information on the activities of groups and individuals in organizations.
- Human resources systems include mechanisms for selecting, developing, appraising, and rewarding organization members.
- Organization culture represents the basic assumptions, values, and norms shared by organization members.

Outputs: Outputs demonstrating organizational effectiveness. Outputs can be classified into three components 1) organization performance refers to financial outputs 2) productivity concerns internal measurements of efficiency 3) stakeholder satisfaction.

- *Phase 3 - Planning for action:* In this stage, organization members and OD practitioners jointly plan intervention details. There are several criteria for designing successful interventions; these include the organization's readiness for change, its current change capability, its culture and power distributions, and the change agent's skills and abilities (Cummings & Worley, 2005).
- *Phase 4 - Taking Action:* This step is to implement the action plan designed in the prior phase and to observe the results.
- *Phase 5 - Evaluating Action Result:* This phase involves making sense of the collected data.

It is important to note that concept of action research works through a cyclical process of conscious deliberation. As illustrated in Figure 4, Coghland and Brannick (2002) suggested spiral cycles in action research consist of: a) diagnosing situation; b)

planning action; c) taking action; d) evaluating action, then leading to further diagnosis, planning, and so on.

Figure 4: Spiral of action research cycles

Source: Coghklan, David and Brannick, Teresa. (2002). Doing action research in your Own Organization. London: Sage Publications

According to Anderson and Anderson (2001), it is critical for a change leader to understand what drives organizational change and be able to respond to them appropriately, not just for today, but for the organization's future success. Anderson and Anderson (2001) proposed seven change drivers: Environment, marketplace requirements for success, business imperatives, organizational imperatives, cultural imperatives, leader and employee behavior, leader and employee mindset.

2.1.4 Magnitude of Planned Organization Change

Planned change efforts can be characterized as falling along a continuum ranging from incremental changes to quantum changes (Cummings & Worley, 2005). Anderson and Anderson (2001) suggest three types of organizational change:

2.1.4.1 Developmental change

This type of change represents the improvement of an existing skill, method, performance standard, or condition that for some reason does not measure up to current or future needs. People in organizations are motivated by the goal to do "better than" or do "more of" what is currently done. The key focus is to strengthen or correct what already exists in the organization (Anderson & Anderson, 2001).

2.1.4.2 Transitional change

It is more complex than developmental change. It is the required response to more significant shifts in environmental forces or marketplace requirements for success. Rather than simply improve "what is", transitional change replaces "what is" with "something entirely different". Transitional change begins when leaders recognize that a problem exists or that an opportunity is not being pursued, and that something in the existing operation needs to change or be created to better serve current and/or future demands. To achieve the new state, the organization must dismantle and emotionally let go of the old way of operating and move through a transition while the new state is being put into place (Anderson & Anderson, 2001).

2.1.4.3 Transformational change

Transformational change is the radical shift from one state of being to another, so significant that it requires a shift of culture, behavior, and mindset to be implemented successfully and sustained over time. Transformation demands a shift in human awareness that completely alters the way the organization and its people see the world, their customers, their work, and themselves. The new state that results from the transformation, from a content perspective, is largely uncertain at the beginning of the change process as it emerges as a product of the change effort itself (Anderson & Anderson, 2001).

The degree of focus required for the human and cultural components is a key differentiator between transitional and transformational change. In transitional change, human and cultural issues are often present, but are not dominant. In transformational change, human and cultural issues are key drivers (Anderson & Anderson, 2001). Organizational transformation deals with the deep issues of personal growth, vision, trust, creativity, purpose, leadership, mastery, and cultivating organizational and individual spirit (Rolls, 1995).

As suggested by Anderson and Anderson (2001) developmental change accepts simply improving current operations. Transitional change implies replacing current operations with new, clearly defined practices suffices. Transformational change suggests that environmental and marketplace changes are so significant that a profound breakthrough in people's worldview is required to discover the new state with which they must replace current operations. Leaders, and subsequently the rest of the organization, come to recognize that their world is not as it once was and that now they must be and do

something radically different, no matter how successful they have been. Shift in mindset of leaders enables them to transform how they think, behave, and lead. Not only do they realize that they must create something entirely new in the organization, but they must acknowledge what is required of them personally to drive the process of moving forward.

According to Anderson and Anderson (2001), leaders cannot lead a transformation successfully from a closed system perspective because marketplace dynamics, the ultimate drivers of the change, are so volatile and influential on the current and future success of the organization. There must be an open-systems relationship between the organization and its marketplace. The organization needs the information and energy the dynamic market place provides for two critical reasons. First, in transformation, the future state is emergent and cannot be predicted because of dynamic changes occurring within the marketplace. These marketplace shifts provide the wake-up calls that assist the organization to discover its ultimate destination. If the organization were sequestered from the impact of the marketplace, it wouldn't get these wake-up calls and would assume what its best future might be without this vital information. Second, in transformation, the magnitude of the change required by the marketplace is so significant that people's mindsets (leaders and employees alike) must transform to even see and understand the scope of change required. The information that drives this transformation of mindset comes directly from the dynamic and changing environment. With a closed system orientation, this new information wouldn't enter the organization to catalyze the mindset transformation required. For these reasons, transformation is only possible from an open system view.

2.1.5 Conclusion

This study view BST as open system and can be made change by planned ODI on its employees. This study deploys Action Research as planned change model.

2.2 Market Orientation

2.2.1 Definition

During a time of increasing rapid change in consumer preferences, faster technological progress, and growing competitive rivalry, it becomes essential for companies to develop mechanisms within their organizations to generate market information, to analyze the information, and to make appropriate response accordingly. The set of companies' behaviors to permanently monitor, analyze and respond to market changes is referred to in the Marketing literature as "market orientation" (Olivares & Lado, 2003).

Kohli and Jaworski (1990) stressed the behavior dimension of market orientation. They conceptualized it as the organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it. Narver and Slater (1990) defined market orientation as the organizational culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers and thus, continues superior performance for the business. Accordingly, Market orientation is based on orientation towards the customer, competitors, and inter-functional coordination (Webster, 2003).

2.2.2 Market Orientation and Marketing Orientation

The focus of this study is on market orientation over marketing orientation. The distinctions between the two are as described in below.

Market orientation is a concept borrowed from field marketing subject. Marketing orientation focuses on the needs of the customer, therefore begins with an analysis of customer requirements, and then attempts to create value by providing products and services that satisfy customer needs (Tidd, Bessant, & Pavitt, 2001). Drucker (2004) explained that the elementary concept of marketing is to start out with the customer's utility, with what the customer buys, with what the realities of the customer are and what the customer's values are.

Market orientation is considered distinct from marketing orientation in the sense that market orientation addresses organization-wide concerns while marketing orientation reflects a functional focus on the departmentation of marketing (Shapiro, 1988).

Market orientation firmly establishes an organizational culture that supports customer orientation. It is characterized by some typical behaviors: gathering information about current and future customer needs, organization-wide inter-functional coordination of marketing activities, and responsiveness to targeted customers (Grinstein, 2008).

2.2.3 Market Orientation and Innovation

An interesting theme that is emerging from the literature is the relationship between market orientation and innovation in organization.

While majority of researchers suggest that market-driven behavior has positive relationship to organizational innovation (Bear & Vickers, 2006; Dobni, 2008; Grinstein, 2008; Han, Kim, & Srivastava, 1998; Houston, 1986; Hult, Hurley, & Knight, 2004; Narver, Slater, & MacLachlan, 2004). There are still disputes about the relationship between market orientation and innovation in organization.

Study of Bear and Vickers (2006) concluded that 'the ability to focus on customers' and 'teamwork/collaboration with others' is viewed as the two top-ranking factors for developing innovation. Houston (1986) suggested that customer-focused firms are in a good position to anticipate future needs of customers, which, in turn, can lead to innovative consequences. Han et al. (1998) and Narver et al. (2004) argued that market-oriented firms often attempt to satisfy latent needs of customers, not only their expressed needs, and they monitor competitors not in order to imitate them but to better differentiate their products. These behaviors are forward-looking and aim to change the status quo, and are likely to increase innovativeness. Greater emphasis on information use, substantial learning, and behavioral change found in market-oriented firms is likely to enhance innovativeness. A study by Hult et al., 2004 suggests that market orientation is likely to enhance innovation because it involves doing something new or different in response to market conditions. Grinstein, 2008 studied the relationships between market orientation and innovation orientation and found that market orientation has a positive relationship with innovation orientation. Dobni (2008) developed an empirically-based comprehensive instrument for measuring an organization's innovative culture. His findings suggested that market orientation is one of the seven factors representing innovative culture. (The other six are: innovation propensity, organizational

constituency, organizational learning, creativity and empowerment, value orientation, and implementation context).

In contrast, some researchers for example MacDonald (1995) preached against "being too close to the customer", showing that market-oriented firms are less likely to innovate. Narver et al. (2004) argued that market-oriented firms attempt to satisfy the expressed needs of customers or imitate competitors and thus they are likely to be distracted from innovativeness.

The positive and negative relationship between market orientation and innovation could be very much depending on how innovation is differently defined. Literature reviews on innovation is at the latter part of this chapter.

2.2.4 The Three Components of Market Orientation

According to Webster (2003), market orientation is based on an orientation towards the customer, competitors, and inter-functional coordination. Therefore ideal configurations of market orientation are customer orientation, competitor orientation, inter-functional coordination.

2.2.4.1 Customer Focus

Day (1990) argued that under customer focus organizations must focus on two areas: identifying the customer and determining customer's perceived values. Organizations need to focus on the attributes of the product or service that create value for the customer (Day, 1990).

2.2.4.2 Competitor Focus

Competitor serves as one useful focal point for at least two reasons. First, competitors are always at the heart of every significant analysis of the competitive or industry context. Second, strategy designed and executed must win against current, emerging, and potential competitors in the marketplace (Fahey, 2003). According to Day (1990), organizations must seek customer comparisons on their performance against performance of their competitors to tell how to sustain the current advantages or overcome disadvantages. A firm can better protect itself from business losses or failures by identifying strengths and weaknesses of competitors in the marketplace (Fodness, Pitegoff, & Sautter, 1993). In addition, competitive analysis can also indicate possible opportunities which result from unmet needs or "gaps" in the market (Fodness et al., 1993).

2.2.4.3 Inter-Functional Coordination

Jaworski and Kohli (1993) highlighted inter-functional coordination as important element of market orientation. The primary aim of inter-functional coordination is to enable the whole firm to create greater customer value through implementation of the marketing concept (Jaworski & Kohli, 1993).

According to Webster (2003), if a firm demonstrates competence in customer focus, competitor focus, and inter-functional coordination, then one might consider it to have a market orientation. This means that effective market orientation becomes a guiding business philosophy that influences the strategies undertaken by employees within the firm. Effective market orientation has been presented in the literature as one

method for improving innovation and performance. More specifically customer focus, competitor focus, inter-functional coordination have been mooted as the three components that would have the most impact on the creation of the sustainable competitive advantage, such as innovation, because of their ambiguity and uniqueness to the firm.

2.2.5 Conclusion

Although all of the three components of market-orientation are covered in this section, the research problem of this study focuses on only inter-functional coordination element of market-orientation to promote innovation in organization. This is the result from assessing BST, its employees are focusing on the market (customers and competitors), but low level of inter-functional coordination was found. The following section of literature review is therefore zooming in toward inter-functional coordination.

2.3 Inter-Functional Coordination

2.3.1 Definition

For this study, the concept of inter-functional coordination is explained by cross-functional teams (CFTs). "Team" is defined by Harris (1984) as a number of persons associated in some joint action, Harris (1984) described "teamwork" as co-operative or coordinated effort on the part of persons working together. To meet with the continuing new needs affected from changing technology, dynamic markets, higher complexity of society and the human systems; and to cope with rising inflation, resource scarcity, reduced personnel levels, budget cut-backs and other similar constraints, management of

organizations are stimulated to be aware of the interdependence of organizational components and the team approach for better co-ordination and synergy in the use of "brainpower" to pooling and better utilizing organizational resources and talents (Harris, 1984). "Team enables effective performance of organization" (Brown & Harvey, 2006) because the increased autonomy and open communication fostered by teams create an atmosphere in which innovative ideas can be developed into products and services that provide superior value to customers (Andrews, 2000). As teams have become more prevalent in the organization, they have also become more varied in their purpose, structure, and function (Proehl, 1996). Cross-functional team (CFT) is one of a variation in team structure (Proehl, 1996). According to Proehl (1996), CFT is a team consists of people from outside the functional unit who are interdependently related in the successful accomplishment of a given task. CFT usually consist of people with unique strengths and weaknesses from various backgrounds such as human resources, finance, engineering, operations, information systems, etc. (Convey, 1994).

2.3.2 CFTs and Organization

When people in organizations focus only on their position, they have little sense of responsibility for the results produced when all positions interact or the final team performance of organization (Senge, 1997). CFTs are hailed by both academics and practitioners as the miracle cure for solving organizational problems (Andrews, 2000) and for enhancing organizational performance (Proehl, 1996). CFTs can offer competitive advantage to organization especially where speed, adaptability and close customer contact are valued because bringing a cross-functional perspective to

organizational problems helps build employee understanding, problem solving capabilities, coordination, communication and ultimately improved quality and productivity (Proehl, 1996). If a CFT consists of representatives of the departments critical to the project's completion, it can reduce the amount of time a project might otherwise take to complete (Chaudron, 1995). When organizations achieved good results via CFT, all the departments represented will also feel they have contributed to the company's success. That, in turn, can boost morale throughout the company (Chaudron, 1995). CFTs also assure that all departments get some voice in the solution, thereby avoiding complaints from any departments that had no input into the solution and have had to suffer the consequences (Chaudron, 1995). Cross-functional teamwork is a real necessity for organizations these days (Chaudron, 1995).

Among various tasks, some popular uses for CFTs by organizations are to develop new products, alter work process, improve service to customers (Chaudron, 1995; Proehl, 1996), solve product problems, set policies or goals, and develop a "total quality" culture (Chaudron, 1995).

In this study, the tasks of CFT are to achieve organization sales budget while keeping controllable expenses at 10% lower than budget. And the objective of implementing ODI on CFT in this study is to help the focal organization to arrive at the third element of Market-Orientation so to foster its innovative level.

2.3.3 Dealing with CFTs

Despite evidences which illustrate that CFTs are clearly worthwhile for performance of organization (Chaudron, 1995), CFTs can present obstacles as well

(Parker, 1994). The effort of putting people from different functions together into a CFT and managing to make the team works successfully is not an easy task (Chaudron, 1995). Harris (1984) argued that although the team is composed of knowledgeable people, team members need to learn new ways of relating and working together to solve cross-functional problems and to attain synergy. It is not possible to just throw a bunch of people from different functions together, give them a problem to solve and expect them to thrive (Parker, 1994). CFTs are the eclectic group of people with a variety of backgrounds, priorities and interests, if these people are given a choice, they probably wouldn't choose to work with each other (Parker, 1994). It can also be that some people might be more loyal to their departments than to the team (Parker, 1994). When people in organizations focus only on their own functions, they will have little sense of responsibility for the results produced when all functions interact or the final team performance of organization (Senge, 1997).

Due to the importance of CFTs to organization, it is crucial to find a way to keep everyone working as an integrated unit, to overcome the difficulty in managing CFTs for the success realization of the organization's personnel potential. The goal of this study is to get employees across different functions in BST to work in harmony and synergy in order to foster innovation within BST. It is critical to review literatures on team behavior and the key causative factors for the success of CFTs.

2.3.4 Team Behavior

Convey (1994) argued that team members tend to exhibit certain types of behavior during the key stages in a group's development cycle. His model of team

development divides the group development cycle into three stages: 1) Team Building 2) Team Development 3) Team Optimization.

2.3.4.1 Team Building

In the very beginning of the team's life, the way in which group members react to one another have much influence on whether the team will be able to achieve its assigned tasks or even get along as a team. The basic issues facing the team members are:

"Why are we here?"

"Will I have a role to play?"

"Will my needs to control (my environment) be met?"

"Will my needs for affiliation be met?"

Each individual had his or her own way of coping with the stress of being involved in a high-profile project with high expectations and a tight timeline. Some people silently wait for events to occur, others formed immediate alliances with others, and some truly assert themselves. In other words, a team in its infancy is not really a team, but just a collection of individuals with their own unique needs, fears, biases and preoccupations. At this stage, little energy is being focused on the team objective. As the project progressed, team members begin to achieve a sense of assurance by discovering what they are supposed to do and then starting to do it. Not until the team members begin to listen to each other and stopped defending their own views and suggestions does the group finally make the transition to a working group and begin to accomplish something meaningful. This transition usually occurs more easily when one person, less concerned about authority, goes out on a limb and brings the group to their senses. A sense of

shared ownership of, and commitment to, team outcomes became possible. The individuals have become a team.

2.3.4.2 Team Development

In this stage the team is beginning to get a sense of satisfaction and achievement, because they have found a way to resolve the leadership conflict and to establish some rules of conduct. In this stage, the team members immerse themselves in the task at hand, but they tend to feel over-confident about their sense of "teamwork". No one challenges others' ideas and they all tend to go out of their way to be accommodating to other team members.

2.3.4.3 Team Optimization

Team is really on a roll during this stage. Team members are willingly to take risks. They debate ideas and methods with an effort to listen to all comments and they are to work constructively to manage inevitable conflicts.

2.3.5 Five Themes of CFTs Elements

Five themes of elements are often cited in literatures as contributing to the success of cross-functional teams, these are: 1) a clearly defined share purpose and goal, 2) membership, 3) clarified roles and functions, conflict resolution/team building training, 4) performance evaluation and team reward, 5) leadership.

2.3.5.1 A clearly defined share purpose and goal (Andrews, 2000; Chaudron, 1995; Juga, 1996; Proehl, 1996; Weintraub, 1995).

Before a team goes to work on a task, the members, their managers and any other stakeholders must agree on the charter (Chaudron, 1995). Perhaps nothing is more frustrating than being on a team that has no clear direction or purpose (Chaudron, 1995). Parker (1994) argued that clear and common goals are used to reduce conflict among team members. In addition, shared goals allow the team to focus its resources for maximum results instead of riding off in all directions (Parker, 1994).

2.3.5.2 Membership (Chaudron, 1995; Harris, 1984; Parker, 1994; Proehl, 1996)

Team effectiveness starts with the selection of the right members (Chaudron, 1995).

Criterion for team member selection is the authority of competence: the individual has some knowledge, information or expertises that can help the group achieve its mission (Harris, 1984). Proehl (1996) argued that the membership of the team is critical. Member of team should represent the end-users; have specific functional representation, open-minded, and highly motivated (Hodgkinson & Healey, 2008). Study of Gundlach, Zivnuska, and Stoner (2006) advocated that 'individualistic' team members exert a negative influence on team performance. This is because individualists accord greater importance on personal interest than group needs. They look after themselves and ignore group interests when these conflict with personal desires.

2.3.5.3 Clarified roles and functions, conflict resolution / team building training (Chaudron,1995; Convey, 1994; Juga, 1996; Parker, 1994; Proehl, 1996).

In order for a team to be successful, it is essential that members know the basics of conflict resolution, delegation, and consensus building (Convey, 1994). Team members must be reprogrammed to act and react in a more "team-friendly" way (Convey, 1994). Chaudron (1995) argued that many teams come together with good purpose, and then fall apart due to misunderstandings. Although when damage happened, the group may seek help from a consultant, but a better approach is to prevent problems from the start. One healthy way to do just that is to hold an up-front teambuilding session. With this type of training, members can air their concerns, which may range from the trivial to the strategic. Teambuilding is especially important for CFTs, where old departmental rivalries and current personality clashes can make bombshells out of the simplest of issues. It is important to train team leaders, members and sponsors in the basics of team functioning (Proehl, 1996).

Parker, 1994 argued that CFTs have strange bedfellows, creating the potential for friction. Parker, 1994 suggested that following techniques would help team members pull together:

- Provide training in conflict resolution. Team members must learn that conflicts are to be expected and even valued. They also must learn to develop listening, questioning and consensus-building skills.
- Obtain expert help from human resources professionals or co-leaders with expertise in group dynamics.

- Set team-oriented standards for communication and trust. Give everyone an opportunity to share information and opinions and expect members to actively listen to each other. Disregard the rank or perceived status of team members and the functional areas they represent.
- Put team members in the same place. By putting teammates together on an informal, daily basis, it helps break down barriers between strangers and help team players overcome past relationship problems and foster communication.

Schein (1992) suggested to distribute/allocate power and status, developing rules for intimacy, friendship. Some rules about how to make decisions should be specified.

2.3.5.4 Performance evaluation and team reward (Chaudron, 1995. Convey, 1994; Proehl, 1996).

Convey (1994) mentioned that much of a team's success can be attributed to effective use of performance measures to facilitate team development. Team performance levels must be measured in order to optimize team performance, manage team conflict, maintain team momentum, and identify team progress (Convey, 1994). Measuring group and individual performance in team project work can optimize team performance by helping a team identify problems and barriers to achieving results as the team passes through each phase in the natural cycle of group development; helping clarify strategies and tactics to maximize team performance; and helping maintain the team's momentum in order to promote continuous improvement (Convey, 1994). Milestones are employed as a kind of team performance measurement among other kinds of measurement e.g. rating systems, peer reviews, self-assessments (Convey, 1994).

Milestones are points of demarcation during a project that represents the completion of a tangible group of work activities (Convey, 1994). Completion of each milestone represents a success of the team at a key point in the project. When properly identified, milestones can boost a team's confidence and inspire members to march on towards the "light at the end of the tunnel" (Convey, 1994). It is important to note that measurements were verifiable not necessarily quantifiable. Performance can always be described by words to assess progress, even if it feels a little subjective (Convey, 1994).

Proehl (1996) argued that one of the serious challenges with CFTs is to establish accountability for team performance. Organizational leaders need to clearly identify the rewards and repercussions for achieving (or not) the team's purpose (Proehl, 1996). Organizational leaders need to explore ways to connect team participation with existing reward systems and/or to develop alternative systems for rewarding team performance (Proehl, 1996). Chaudron (1995) proposed that companies must develop a meaningful, clear and monetarily significant pay policy that rewards cooperation. Otherwise, some members of CFT may work toward direction not in line with objective of CFT. Team objective may still be possible to achieve, but it will be tardily and not much fun.

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2.3.5.5 Leadership

Stringer (2002) argued that the single most important determinant of an organization's climate is the day-to-day behavior of the organizational leaders. As organization and team are both social human system, hence this argument is also applicable to team. Leaders play high influence on team's climate because leader of the team has a powerful influence on the expectations of its members (Stringer, 2002).

Leader of the team often controls rewards, establishes work rules, set informal rules in the team, these are among others (Stringer, 2002). The day-to-day practices of the leader have a powerful and lasting impact on team climate, and they contribute significantly to team performance – both good and bad (Stringer, 2002). Trust climate is essential for team efficiency as Schein (1992) put forward that a fully connected network can only work if high trust exists among all the participants and that high trust is partly a function of leader assumptions that people can be trusted and have constructive intent.
Often the quickest way to change the climate of the organization is to change the practices of the leaders (Stringer, 2002).

2.3.6 Conclusion

In this study the inter-functional coordination, which is one of the three elements in market-orientation that help foster innovation in organization, is explained by cross-functional team. Although literatures suggest plenty of factors contributing to the success of CFT, interventions in this project selectively adopt only those factors deem suitable to the context of BST. It must be stressed that those unselected factors are by no means unimportant to the success of CFT.

2.4 Synergy

In order to promote teamwork, synergy is included in this study as the employees' attitude/spiritual aspect of team. In order to realize teamwork, synergy in teams must be created (Harris, 1984). If people are not to be considered machines, the reality of choice cannot be ignored. Change can be forced on a machine, but humans make choice to

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change. Emotions and feelings affect human decisions and behaviors. Emotions and feelings are sometimes referred to as "spirit/soul". Companies should acknowledge employees' emotions and feelings (or "spirit/soul") to consciously encourage organizational employees to go more deeply within, to acknowledge and synthesize the importance of "soul" in the workings of the company and in their relationships with other organizational employees (Chandra, 1995). The organizational employees need to move beyond the ego and escape from the prison of intellect in order to provide an opportunity to be in touch with each individual's connectedness to others (Chandra, 1995).

2.4.1 Definition

As cited in Juga (1996), the synergy concept was brought to management literature by Igor Ansoff. Igor Ansoff delineated the economic basis of synergy for different business to possibly add up to more than the sum of their parts based on the economic benefits of scale (as cited in Juga, 1996). Moran and Harris (1981) defined synergy as cooperative or combined action occurring when diverse or disparate people or groups work together as oneness. The objective is to increase effectiveness by sharing of perceptions, insights, and knowledge. Juga (1996) defined synergism as the co-operative action of discrete individuals such that the total effect is greater than the sum of the effects taken independently. According to Harris (1984), synergy is the condition necessary for co-operative or combined action by team members. Juga (1996) argued that an organization could capitalize its synergistic potential of scale and scope economies through collaboration.

Synergy occurs when group participants are effective at sharing their perceptions and insights, their experiences and knowledge, for the common purpose (Harris, 1984). Synergy results when individuals create a new team culture-that is, group attitudes, norms, customs and practices which foster the accomplishment of team objectives (Harris, 1984). Organization that combines interdependent units on a non-hierarchical team basis could capitalize on the synergy potential (Juga, 1996).

Following the above definition, explanation, and description on synergy, the researcher delineates sub-concepts of synergy as: Sense of team identity, unity in diversity, collaboration.

2.4.2 Sense of Team Identity

Social identification, or the perception of "oneness" with a group, was explained by Ashforth and Mael (1989) as a cognition that arose out of the categorization process. According to Turner (1985) and Turner et al., (1987), categorizing oneself as a member of a particular group creates an affinity and loyalty toward that group (ingroup) and its members.

Social identity theory suggests that individuals recognize their own membership in groups by defining the social boundaries surrounding particular groups, and then self-categorizing themselves as either belonging or not belonging to them (Gundlach et al., 2006). Applying the process of social identification to organizational teams is referred in this study as team identification.

Team identification is the individual level construct leading to the group level construct of team identity (Gundlach et al., 2006). Schein (1992) argued that one of the

immediate consequences of defining who is in and who is out is that insiders get a sense of identity from belonging to a defined team.

Lembke and Wilsons (1998) defined team identity as the cognitive, behavioral, and emotional alignment of team members with each other. Team identity unifying team members into one socially identifiable whole, it also prevents individual team members from being distracted by individual goals which could be prioritized over team interests (Gundlach et al., 2006).

When sense of team identity is high, individuals will refer to the shared prototypical image of a 'good team member' to give them a common source for coordinating and directing their performance-related behaviors. However, if the identity is not shared among team members, behaviors will not be co-coordinated nor directed towards performance goals in an integrated, efficient manner (Gundlach et al., 2006).

Factors enhancing sense of team identity suggested by researchers are outlined below:

- Sense of purpose – team members need to know what they are supposed to do (Hughes & Terrell, 2007; Schein 1992).
- The shared goals of the team (Hornsey & Hogg 2000; Knippenberg et al. 2004).
- Defining team boundaries - perception that the team is a distinct entity. Achieving team unity requires a clearly defined purpose; Purpose fuels the team (Hughes & Terrell, 2007; Schein 1992).
- Interpersonal proximity (Ashforth & Mael, 1989)
- Shared fate (Gaertner et al. 1993, 1999)

- Team acceptance of one another – team members are to play mutual respect and support among team members (Hughes & Terrell, 2007)
- Commitment – individuals identify with the team by making a firm commitment (Hughes & Terrell, 2007)
- Pride for the team's work and for being on the team (Hughes & Terrell, 2007)
- Task interdependency (Ashforth & Mael, as cited in Gundlach et al., 2006; Gaertner et al. 1993, 1999)
- Creating defined roles and responsibilities (Hughes & Terrell, 2007)

2.4.3 Unity in Diversity

Given the importance on characteristic of team members as a crucial element for team effectiveness, it is essential to ensure sufficient diversity among team members in terms of background knowledge and perspectives of participants to maximize the likelihood of team efforts (Hodgkinson & Healey, 2008).

The more turbulent the environment, the more likely it is that organizations with more diverse human resources will have capability to cope with unpredicted events (Schein, 1992), this is because team diversity promote team creativity (Bear & Vickers, 2006). For this reason, organizational leaders should stimulate diversity and promulgate the assumption that diversity is desirable at the individual and subgroup levels (Schein, 1992). Such diversity will inevitably create subcultures, and those subcultures will eventually be a necessary resource for learning and innovation (Schein, 1992).

However, for diversity to be a resource, subcultures in organization must be connected, be communicated, and be understood by organizational members (Schein,

1992). Team members must learn to value each other enough to learn something of each other's culture and language (Schein, 1992). Members should have a shared set of values and beliefs (Mayrhofer, 1998). One way of determining a team's core value and assumptions is to ask present members what they really look for in memberships and to examine carefully the career histories of present members in order to detect what accounts for their inclusion in the group (Schein, 1992). A central task for the leader is to ensure good cross-cultural communication and understanding throughout the organization (Schein, 1992). Another supporting system to foster unity and unlock diversity is to allow team members to be exposed to various task functions as stated by Hodgkinson and Healey (2008) that team members who have worked in a variety of functional roles throughout their careers will be more accepting of competing perspectives and diverse ideas. Moreover team members who readily identify with multiple (functional) subgroup identities are less likely to cling to a particular subgroup identity, thus reducing the likelihood of intergroup biases.

2.4.4 Collaboration

Collaboration implies doing something together (Hargrove, 1998). Cunningham, Olshfski, and Abdelrazek (2009) differentiate cooperation and coordination to collaboration that cooperation and coordination are similar to collaboration, but cooperation and coordination do not mean collaboration. One can cooperate but not collaborate when individuals or organizations act independently to achieve a common goal. Likewise, one can coordinate with another, but not collaborate, when delivering one's own service in a planned, but not collaborative way. The phrase 'collaboration in

organizations and management' involves interacting with others in carrying out the policy directive of a duly chosen decision maker or decision-making body by working with others, together exploring options in deciding what to do or how to do it.

Factors that facilitates, motivate collaboration alliance are included but not limited to:

- A perceived crisis (Butterfield, Reed, & Lemak, 2004)
- A common interest, shared common goals (Butterfield et al., 2004; Grinols, 2008; Luo, 2002)
- The condition of high interdependence (Butterfield et al., 2004)
- The share Confident in positive gains from joint efforts (Luo, 2002)
- The passion toward a possibility or opportunity (Hargrove, 1998)
- The quality communication (Hargrove, 1998)
- The commitment under informal organization (Hargrove, 1998)
- The attitude of learning and beginner's mind (Balcazar, Harper, & Lewis, 2005; Hargrove, 1998)
- The mutual respect among team members (Balcazar et al., 2005; Grinols, 2008)
- Trust (Balcazar et al., 2005)
- Adequate communication (Balcazar et al., 2005)

2.4.5 Conclusion

As per suggestion of Harris (1984), in order to realize teamwork, synergy in teams must be created. This project therefore included synergy as the employees' attitude/spiritual aspect of team in order to promote teamwork as well as innovation.

Synergy is explained as the whole is greater than the sum of individual parts. Following the suggestion of literatures that synergy is created when diverse or disparate people or groups categorize oneself/themselves as a member of a particular group to work cooperatively in concerted effort for a common purpose; and the synergistic potential of scale and scope economies can be achieved through collaboration. Consequently, in this study, employee synergy is delineated into three sub-concepts which consists of team identity, unity in diversity, and collaboration.

2.5 Innovation in Organization

Given that fostering innovation in organization is one of the objectives of this project, it is therefore imperative to review literatures relating to innovation in organization.

2.5.1 Definition

Innovation in an organization is broadly defined because innovation has been studied in a variety of contexts, including its relation to technology, commerce, social systems, economic development, and policy construction. Therefore, there are naturally a wide range of approaches to conceptualizing innovation in the scholarly literature.

(Drucker, 1995, 2004; Fagerberg, 2004; Ottenbacher, 2007; Van de Ven & Angle, 1989; Wang & Ahmed, 2004; West & Farr, 1990).

Dundon (2002) defined innovation as the profitable implementation of strategic creativity. Dundon's (2002) definition suggested combination of the four key components: creativity, strategy, implementation, profitability. Innovation can refer to product, service, process, and the total business model or concept the organization is using (Dundon, 2002).

2.5.1.1 Creativity

There are different definition statements available in literature on creativity (Amabile, 1983; Dundon, 2002; Johnson-Laird, 1988; Reber, 1985). According to Dundon (2002), definition of creativity is "the discovery of a new connection." Creativity is the foundation of innovation (Hargrove, 1998). Drucker (1995) argued that innovating organizations spend neither time nor resources on defending yesterday. Systematic abandonment of yesterday alone can free the resources, therefore the ruling assumption of an innovative strategy is that whatever exists is aging and usually sooner, go down rather than up, so the foundation of innovative strategy is planned and systematic sloughing off of the old, the dying, the obsolete. Creativity is the foundation of innovation (Dundon, 2002). Dundon (2002) suggested that the seeds of creative thinking include believing in creativity, being curious, and discovering new connection. King and Anderson (2002) recommended four broad strategies organizations can deploy to increase the creative production of its members: Firstly, it may introduce procedures to encourage the generation of new ideas, such as brainstorming technique. Secondly, it

may train people in the skills required for successful creative performance. Thirdly, it may use selection and assessment processes to recruit creative individuals and allocate people to positions appropriate to their level of creativity. Fourthly, it may change some of its internal factors such as leadership style, job characteristic, structure, climate and culture, in ways which facilitate creativity.

2.5.1.2 Strategy

According to Dundon (2002), strategy is about connecting creativity with value, once the creative idea has been identified, it must be developed into a strategic idea so that it can bring value to the organization and the marketplace. A strategic idea is the best or most valuable idea for solving the challenges at hand, which means when a lot of creative ideas are available, there is need to decide which is the best idea among the many options are (Dundon, 2002). Drucker (1995) also suggested that meaning of innovation is 'value' and the innovative strategies must be purposeful to deliver what is 'value' to the customer. According to Dundon (2002), the seeds of strategic thinking include seeing the BIG Picture, understanding the present but looking to the future, and doing the extraordinary.

2.5.1.3 Implementation

Drucker (1995) suggested that this is the stage that separates mere creativity from successful innovation. New ideas require action (Drucker, 1995). Execution stage is more about social skill than it is about the technical skill (Drucker, 1995). Dundon (2002) supported this by putting forward the seeds of transformational thinking involving

the human side of innovation and include seeking greater awareness in dealing with the resistance to change, building the collaborative networks needed to support new ideas, developing courage and igniting passion, and above all, taking action. Implementation is the area that many great creative and potentially innovative ideas become blocked and never have a chance to deliver value to an organization because managers are often afraid to take the risk on new ideas and throw a lot of hurdles up to prevent change (Dundon, 2002). Drucker 1995 argued that innovation is attitude and practice of both management and employees, resistance to change is grounded in ignorance and in fear of employees' attitude on the unknown, hence change has to be seen as opportunity by people, and then there will be no fear.

It is also often observed that new and useful ideas are not presented or packaged in the right way to enable people to understand their potential, hence are not able to get through for implementation (Dundon, 2002). Toward this barrier, Drucker (2004) suggested an innovation, to be effective, has to be simple and it has to be focused. Everything new runs into trouble; if complicated, it cannot be repaired or fixed. The greatest praise an innovation can receive is for people to say: "This is obvious. Why didn't I think of it?". Drucker (2004) further suggested that effective innovations start small. They are not grandiose. They try to do one specific thing. Otherwise, there is not enough time to make the adjustments and changes that are almost always needed for an innovation to succeed. Initially innovations rarely are more than "almost right". The necessary changes can be made only if the scale is small and the requirements for people and money fairly modest.

2.5.1.4 Profitability

The concept of profit can manifest itself in many ways, such as a financial gain, an improvement in employees' morale or retention, or an increase in the contribution to society (Dundon, 2002). Profitable implementation also considers the resources (financial, time, effort, etc) needed to develop and implement the new idea (Dundon, 2002).

2.5.2 Different Innovation from Two Related Terms – Organizational Change, Invention

Organizational change and invention are the two terms closely related to innovation, still they are different from innovation and should not be taken as exchangeable terms to innovation.

2.5.2.1 Innovation and Organizational Change

King and Anderson, 2002 argued that innovation is different from organizational change: Organizational change tends to focus predominantly on the management of formally planned changes, especially changes to the ways in which the organization relates to its environment and different parts of the organization relate to each other. Routine, maturational, evolutionary or accidental changes to organizations receive less attention, as do changes emerging from levels of the organization below senior management. Whereas innovation research sometimes concerns itself with changes which are quite localized in their impact within an organization. Innovation research tends to be at least as much concerned with the origin and initiative of change as with

their implementation, whilst organizational change research places its emphasis firmly on implementation.

2.5.2.2 Innovation and Invention

Innovation is not invention (Drucker, 1995). Invention is the first occurrence of an idea for a new product or process, while innovation is the first attempt to carry it out into practice (Fagerberg, 2004). Innovation occurs when someone uses an invention or an idea to change how the world works, how people organize themselves, or how they conduct their lives. In this view innovation occurs whether or not the act of innovating succeeds in generating value for its champions.

2.5.3 Types of Innovation

Based on the level of newness or change affecting the organization as criteria in classifying type of innovation, Dundon (2002) argued three types of innovation: Efficiency innovation, Evolutionary innovation, and Revolutionary innovation.

2.5.3.1 Efficiency Innovation

Efficiency innovation focuses on identifying new ideas for improving what already exists. This approach requires the team in building on the past and only looking for small changes in what is already being done. Some view the pursuit of efficiency as opposite to the pursuit of innovation (Drucker 1995; West & Farr 1990). However, if following the innovation definition of Dundon (2002) then even small ideas for cost savings or productivity programs should be considered part of the Innovation Value

Continuum. Many Japanese manufacturers benefit from reworking what already exists. In some circumstances, pursuing Efficiency innovation is not the optimal route. For example cost-savings programs may appear to be a quick route to higher profits but, in actuality, may be costs more than the organization anticipated. These initiatives may have a negative effect on the quality of your customer offerings as well as on the psyche of your employees.

2.5.3.2 Evolutionary Innovation

Evolutionary innovation focuses on identifying ideas that represent something "distinctly new and better" (Dundon, 2002).

2.5.3.3 Revolutionary Innovation

Revolutionary innovation focuses on radically new and better ideas dismantling the existing structure of the organization and marketplace (Dundon, 2002).

Dundon (2002) suggested that in reality, only a very few organizations and only a very few individuals are actually working on anything revolutionary. In fact, the majority of effort is on efficiency innovation. Although efficiency innovation provides lower impact improvements or adaptations of an organization's products, services, programs, or processes and only small gains are realized. In times of economic uncertainty, people become more cautious and slip back into the efficiency mode in an attempt to control what is perceived to be the most controllable part of the business – the cost structure. Some may find it more comforting to work on the smaller issues facing the team, delaying the larger issues for another time. Most people like to work on what

they know. Still others may not see the need for anything new and better. The problem arises when organizations are spending too much time tinkering with small, low-impact innovations instead of rallying their teams around the potential to do something extraordinary in the marketplace. Although Efficiency innovation may be too limiting, Revolutionary innovation may be too disruptive. If the marketplace and organization are not ready for the Revolutionary idea, there will be a tremendous amount of resistance to change that could sabotage the acceptance of the new idea. If a focus on Efficiency innovation is too limiting and a focus on Revolutionary innovation too disruptive, a focus on Evolutionary innovation may be just right. What is important is to be honest about the type of innovation really wanted by and workable in the particular organization respecting its available resources, core competencies, and culture of the organization.

It is also important to note the suggestion of Dundon (2002) that innovation can be applied to the day-to-day activities of all departments, innovation is not a one-off event, and the overall goal of innovation management is to create the capacity for sustained innovation.

Although, some academics (Drucker, 1995, West & Farr, 1990) view the pursuit of efficiency as opposite to the pursuit of innovation, by following the definition of Dundon (2002), and by taking from explanation of BST's mission: "We will demonstrate continuous improvement in everything we do" and "we operate efficiently and cost-effectively", this study accepts Efficiency innovation.

2.5.4 Risk

While innovation typically adds value, innovation may also have a negative or destructive effect and typically involves risk (King & Anderson, 2002). Because innovation involve the action of introducing new ideas, it suggests risk-orientation (Bates, Manuel, & Oppenheim, 2007; Lyons, Chatman, & Joyce, 2007; Martensen, Dahlgaard, Park-Dahlgaard, & Gronholdt, 2007; Marxt & Link, 2002)
Shin, Cheng, & Chia, 2003).

Risk was defined by Marxt and Link (2002) as an uncertain event which, should it occur, would have an effect on achieving the objectives.

Drucker (1995) argued that an innovation does not proceed in a nice linear progression, innovation is not determined. There are many factors in what ever causal patterns may exist that no one can possibly unravel them. Neither, however, innovation is haphazard and incapable of being predicted or foreseen. Innovation follows a probability distribution. It is possible to say what kind of innovation, if successfully brought about, is likely to become a major product or process, a major new business, a major market. It is possible to look systematically for the areas where innovative activity, if it produces results, is likely to enjoy success that is rewarding.
The first results of innovation are usually meager. It started small but has high potential to turn out to be the really important ones. However, it cannot be predicted when it will take off to rise or whether it will ever be.

There are also the innovations which are not part of the pattern, the innovations that are unexpected and that change the world rather than exploit it. These innovations lie outside of the probability distribution. They are something that did not exist at the

time. They are clearly the most risky ones. Their succeeding chance is rather low. They are of supreme importance, but they cannot be managed. The innovating manager needs to anticipate vulnerabilities and opportunities. The innovative manager needs to respect the dynamics of innovation.

To reduce misunderstanding on the risk aspect of innovation, it is important to take note Drucker's (2004) recommendation that successful innovators are conservative. They are not "risk-focused" but they are "opportunity-focused".

2.5.5 Innovation and Organization

Innovation has been touted as the differentiator that will lead organizations to the next level of competitive advantage. (Dobni, 2008). Innovations are critical for not only survival but also for long-term stability and profitability (Ottenbacher, 2007). As innovation enhances organizational flexibility, willingness to change, and the introduction of new products while decreasing organizational inertia, it positively affects the firms' long-term success. (Damanpour, 1991; Gatignon & Zuereb, 1997; Hult et al., 2004). According to Tidd et al. (2001), analysis of the PIMS (profit impact of market strategy) from the Strategic Planning Institute's database reveals that process innovation helps to improve relative quality and to reduce costs, thereby improving the relative value of the product. Product innovation also affects product quality, but has a greater effect on reputation and value. Together, innovation, relative value and reputation drive growth in market share. There is an almost linear relationship between product innovation and market growth.

Drucker (1995) suggested that a business enterprise can exist only in an expanding economy, or at least in one which considers change both natural and acceptable because business is the specific organ of growth, expansion, and change, therefore innovation is a function of a business. The best way to organize for systematic, purposeful innovation in the organization of the business enterprise is to take innovation as a business activity rather than as functional work. This imply that innovation need to be extended across all parts of the business, all functions, all activities, every managerial unit of a business should have responsibility for innovation and definite innovation goals (Drucker, 1995).

Drucker (1995) argued that the crisis of the world is an institutional crisis demanding institutional innovation. The business enterprise, its structure and organization, the way in which it integrates knowledge into work and work into performance, and the way in which it integrates enterprise with society and government, are areas of major innovative need and innovative opportunity. Because criterion of innovation is a change in the economic or social environment, a change in the behavior of people, it means that the bulk of innovative efforts will have to come from the places that control the human resources and the money needed for development and marketing, that is, from the existing businesses and existing public-service institution. Innovation from now (year 1995) on will have to be built into existing organizations which means organizations will have to become increasingly capable of organizing themselves for innovation as well as for administration. An established company in an age demanding innovation that is not capable of innovation is doomed to decline and to extinction. And

a management in such a period does not know how to manage innovation is incompetent and unequal to its task.

Drucker (1995) suggested that innovation in a business enterprise must always be market-focused. To start out with the consumer's or client's need for a significant change is often the most direct way to define new science, new knowledge, and new technology, and to organize purposeful and systematical work on fundamental discovery.

2.5.6 Conclusion

Innovation is no doubt being considered important to enhance competitive advantage for organization. There are different definitions for the term innovation. This study follows Dundon's (2002) definition but merged profitability into strategy. Innovation can be classified into different types by different methods, this study accept all types of innovation including the efficiency innovation which is rejected by some authors.

2.6 Conceptual Framework

Organization as a human social system can be holistically viewed as an open-system whereby seeking input form external environment to make transformation into output which serve collective purpose of its people in the most sustainable way as possible. As external environment keep evolving, it is offering to organization both opportunity and threat. For its survival, well-being, and growth, organization must constantly develop and renew itself according to and in the synchronized pace with its

changing environment to reap the best from its environment, better than its competitors. This rational suggests that organization needs to continuously innovate itself.

It is possible that organizational innovation comes naturally in the reactive approach to its changing environment just like all living creatures in the world organically adjust themselves according to the changing ecology system. However, if there is a sign that a particular organization does not have suitable direction, speed, or level of self-renewal to respond well to its environment, it is the time when leaders/managers of such organization must proactively implement a change plan to develop the organization. Because organization is made up of people, and people are the only organic part of organization where self-renewal is possible, so, assumption of organizational development focuses on organizational human system to improve its self-renewal process. Researchers have suggested various planned change models for organization development. Nevertheless, when the research topic is an unfolding series of actions over time in a given organization and its members wish to collaborate studying their own actions, 'action research model' is recommended by literature as an appropriate change approach. In this study, the process to develop BST is started from the sense of a BST manager (the same person as researcher) that BST has been catalyzed by two different forces or signals for change: 1) the organization's increasingly competitive and dynamic environment 2) the company's mission. The manager of BST sensed the wakeup call that BST is required to response to these two signals by fostering innovation. From the initial assessment of the researcher and a few managers, BST has achieved good result on financial aspect, customer satisfaction aspect, employee satisfaction aspect. BST has culture which focuses on customers. There is no concern on the present

performance, however as per the company's employee performance appraisal records, BST demonstrates rather low level of employee innovation. In addition, the low level of employee inter-functional coordination and employee synergy can also be understood from the researcher's observation and informal dialogue with BST employees. The concern for BST performance and competitiveness is therefore more to move BST from a good organization to a better organization, simultaneously to facilitate BST to adjust itself continuously at the same speed to its environmental changing forces for it to be a greater organization in the longer term. The above description about concerns of BST together with evidence from extensive past researchers' studies suggest that innovation is critically significant to organization's competitiveness for both short and longer term leading to the recommendation gathered by the researcher that BST need to foster innovation. Despite performance measurement and reward system of BST, only 10% of employee key performance indicator is allocated for innovation (referring to standard criteria of BST on annual employee performance appraisal). This 10% on innovation, however, is considered as the vital few following Pareto law or the 80/20 Principle where by small initial influences can become greatly multiplied and produce highly unexpected result. Enhancing innovation within BST therefore is likely to lead positive contribution to other areas (financial result, customer focus, people focus) which occupy 90% key performance indicator of employee performance; and which will eventually offer positive effect to the future sustainable performance of BST. Hence fostering innovation in BST becomes the center problem of this study.

Although, literature suggested that under highly dynamic market place organization should integrate the higher types of innovation – Evolutionary innovation

and Revolutionary innovation, for its survival, because Efficiency innovation which accept minor adaptations of an organization's products, services, programs, or processes, may be deemed as insufficient for organization to respond to its market place. However, taking from the explanation of BST's innovation mission- "We will demonstrate continuous improvement in everything we do" and knowing that this study is relate with the very early step in BST to consciously cultivate its innovation. In addition, the intervention period of the research is limited to only four months. This study, therefore, intentionally follow the innovation definition which accept Efficiency or Incremental type of innovation. This does not mean that it rejects the other two higher levels of innovation – Evolutionary innovation and Revolutionary innovation, but because the Efficiency innovation approach is considered suitable for the context of BST where beginning step is needed for practicing innovation.

Although Dundon (2002) suggest four key components for innovation: creativity, strategic, implementation, and profit; the researcher sees that it is possible to combine profitability component under strategy, hence delineate components of innovation in organization to be: 1) creativity – the discovery of a new; 2) strategic perspective – determining whether the idea is new, useful, and going to generate higher value than cost for organization; 3) implementation – bringing the new, useful, and profitable idea into action.

Literature review suggested that innovation in organization can be enhanced when organization adopt market-orientation approach. Three key components in market orientation approach are customer focus, competitor focus, and inter-functional coordination. Results from initial organizational assessment, BST exhibits good level of

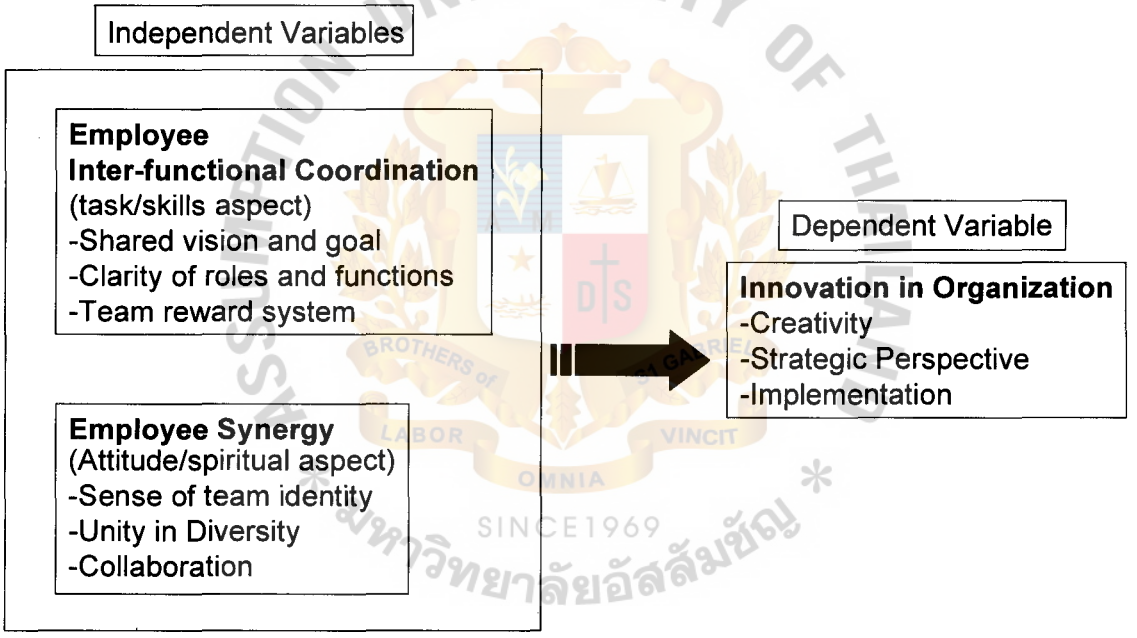
customer-orientation, competitor-orientation; however low level of inter-functional coordination and synergy among employees. Literature also suggests that via the unity in diversity, synergy does promote innovation. This study is therefore focus on enhancing employee inter-functional coordination and employee synergy to foster innovation in BST.

Planned change of this study is classified as transformation change focus on human resources of organization, it involves shift of employee mindset. Since employees as human beings are affected by emotions and feeling or spiritual beliefs, conceptual framework of this study therefore suggest to cover both task aspects and attitude aspects (more abstract aspect) of teamness. Under the task aspects, three elements often cited as contributors for effective inter-functional coordination and are considered suitable within context of BST: 1) shared vision and goal, 2) clarity of roles and functions, 3) team reward system. Under the attitude aspects, three sub-concepts derived from definition of synergy described by Juga (1996), Moran and Harris (1981), and Harris (1984) are: 1) sense of team identity, 2) unity in diversity, 3) collaboration.

Figure 5 illustrates conceptual framework of this study by demonstrating innovation in organization as dependent variable. Three sub-concepts of innovation in organization are 1) creativity 2) strategic 3) implementation. In order to foster innovation in BST, two independent variables suggested by literatures and deemed suitable for BST context are introduced: 1) employee inter-functional coordination 2) employee synergy. Inter-functional coordination is taken as the task/skill aspect. Synergy is regarded as the attitude/spiritual aspect dealing with employee emotion and feeling. Sub-concept of inter-functional coordination are 1) shared vision and goal 2) clarity of roles and

functions 3) team reward system. The three sub-concept of employee synergy are 1) sense of team identity 2) unity in diversity 3) collaboration. Elements in this conceptual framework represent the content of this study. Aspiration of this study is to be efficient in designing and implementing organizational development intervention on employee inter-functional coordination and employee synergy to foster innovation in organization, using BST as an organization of study.

Figure 5: Conceptual Framework



2.7 Action Research Framework

The change process of this study follows Action Research approach. Figure 6 illustrates Action Research framework of this project. This study is divided into three connected stages: Pre ODI stage or the OD Interventions development stage, ODI stage

or the OD Interventions implementation stage, and Post ODI stage or the OD Interventions evaluation stage.

2.7.1 Pre ODI Stage

Pre ODI stage can be broken up into two steps: Pre-step and diagnosing step. OD planned change usually start from the Pre-step in Pre ODI stage. In this study the OD planned change program started when one of the managers of BST who is also the researcher of this project sensed a need for BST to foster innovation. The diagnosis was when recent and present performance and elements of BST were thoroughly assessed; problem of BST for study was identified; research objectives, research questions, and research hypothesis were determined; qualitative data and quantitative data related to research questions and hypothesis were gathered; ODI was planned. In this stage, employee inter-functional coordination, employee synergy, and innovation within BST were found at low level (according to SWOT analysis and the pre ODI gathered data).

2.7.2 ODI Stage

After data related to research questions and hypothesis were gathered in Pre ODI stage, the project was then moved into ODI stage which was the stage of implementation. This stage took four months from the end of August, 2009 until end December, 2009. Under this stage, actions were taken as planned, action results were monitored and evaluated, action plan was revised as per evaluation feedback. The loop of plan for action, taking action, evaluating action result continued until the end of this stage.

Planned interventions for this study were:

- Identify shared vision and goal
- Clarify roles and functions
- Establish team performance evaluation and team reward
- Arranging team building activities
- Enhance cross functional interaction, socialization, and interpersonal relationship

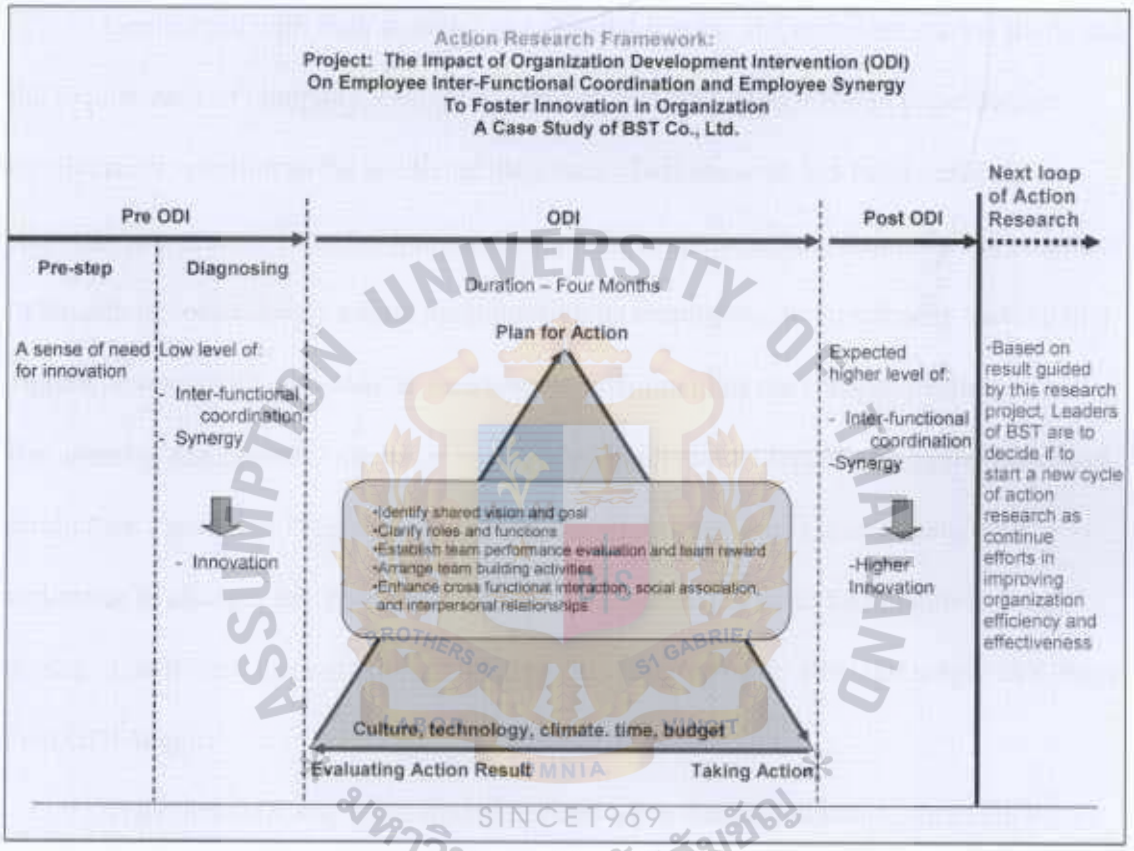
Interventions were taken into consideration, the suitability of company culture, technology, climate, time, and budget.

2.7.3 Post ODI

After the four months interventions, the project was then moved into Post ODI stage or evaluation stage. This stage was to assess the effects of the interventions to determine: 1) if improvement on employee inter-functional coordination, employee synergy, and innovation in organization have occurred, if so, to what extent, 2) if employee inter-functional coordination and employee synergy have positive relationship with innovation in organization. In this stage, the post ODI qualitative and quantitative data gathering was accomplished. Data was analyzed in comparison to the data gathered during pre ODI stage to answer research questions and to prove hypothesis. Findings of the study, conclusions, and recommendations were presented. Employee inter-functional coordination, employee synergy, innovation in organization were found higher than at pre ODI stage. The research project was finished. However, based on the learning experience of this study, leaders/managers of BST were to decide if next round of action

research study is to be conducted as efforts continue in improving BST efficiency and effectiveness.

Figure 6: Action Research Framework



Chapter Three

Research Methodology

3.1 Research Design

Confronted with both external and internal forces: the turbulent market place and the requirement of company's mission, managers of BST search for an organization development solution to the problems they face. This research has been designed in response to a request from BST for applying ODI to enhance innovation for the company to be able to continuously adjust itself through its employees, to sustainably survive in a vibrant environment, and also to demonstrate fulfillment of the company mission. Recognizing the essential nature of employees' involvement tapping into their ideas and productive capacities, their responsibilities, commitments, while minimizing their resistance to change, this research deployed action research as an OD planned change model. There were three stages in OD planned change model: Pre ODI stage, ODI stage, Post ODI stage.

At the pre ODI stage, the researcher and a few functional managers of BST collaborated in assessing the phenomenon of BST through review of past and recent records of company performance, employee performance; observing and having informal dialogue with employees to ensure that concerns on innovation raised by a manager of BST is indeed the real challenge of BST that deserve solution from a research project. For BST to develop and change in order to be more competitive both in short and long term. The researcher contributed methods for researching issues and general theories to help make sense of the findings that emerge from the joint investigation. Based on

understanding gained from the initial assessment at pre ODI stage, it confirmed that BST needs to foster innovation in order to be able to continuously develop itself matching with the changing environment, and also to comply with its mission. The initial assessment also suggests the low level of employee inter-functional coordination and employee synergy in BST.

The idea of doing an ODI to enhance employee inter-functional coordination, employee synergy in order to foster innovation within the organization was shared with key functional managers. The team consisted of key functional managers (including the researcher) is named hereafter as "the Planning Change Team". Upon the agreement of the Planning Change Team members, the Change Team was formed. Members of the Change Team were functional managers (the researcher is included) plus some other employees whom were seen by key functional managers as having influence upon BST employees. The Change Team members then designed plan interventions to enhance employee inter-functional coordination, employee synergy in order to foster innovation within BST. The change program was communicated to all employees of BST. Qualitative data and quantitative data related to employee inter-functional coordination, employee synergy, and innovation in organization were gathered. Quantitative data was gathered via survey, while qualitative data was gathered via semi-structured interviews and observations.

At the ODI stage, actions were taken as planned observing flexibility revising the plan according to indications of feedback gathered after actions have been taken. That meant intervention activities were sought and improved following action evaluation feedback within the organizational context. The process involves non-linear loops,

however the members of the Change Team were still maintaining certain levels of control over the activities and events within the process. The intervention period took four months.

At the post ODI stage, another round of semi-structured interviews, observations, and survey on employee inter-functional coordination, employee synergy, and innovation in organization were conducted. Data at the pre and post ODI stages were analyzed, compared, and evaluated to determine whether 1) employee inter-functional coordination, employee synergy, and innovation in organization have improved, and at what level, 2) the change of employee inter-functional coordination and employee synergy have effects on the change of innovation in organization, and at what level.

3.2 Research Methodology

Because action research was selected as the planned change model, it suggested adopting qualitative data as a medium. However different research methods have their own strengths and weaknesses. No single method can fully measure all kinds of variables important to OD. In order to reduce the limitation of qualitative data, this study covered both qualitative and quantitative methods to complement each other generating results which are more reliable. Under qualitative method, observations and semi-structured interview were used as Triangulation research strategy to provide a more holistic, better understanding of the phenomenon under study, and to assure completeness of findings as each method counterbalances the margin of error in the other. Under quantitative method survey method was deployed.

3.2.1 Qualitative Method

Observations: This instrument was selected for gathering data relating to employees' behaviors, meaning of behaviors, and employees' relationship.

Semi-structured Interview: This instrument was selected to gather data relating to employees' private viewpoints and feelings.

3.2.2 Quantitative Method

Survey: This instrument was used to gather employees' perceptual data.

3.3 Subjects of Study/Sources of Data

Subject of study of all instruments in this research was BST employees.

Sources of data for observation were all employees of BST who serve BST throughout the study period, except the researcher, the SCI Manager.

For the semi-structured interviews, respondents were randomly selected from each and every group of job function: Commercial/SCI/Marketing; Finance/Administrative/IT; Technical/QC/PSR; Customer Services/Supply Chain; Manufacturing/warehouse/delivery.

Respondents for analysis of survey were fifty-one employees of BST. Although there were eighty-one employees of BST during pre ODI stage, only fifty-one sets of completely filled questionnaire were used for pre and post survey comparison as following employees were excluded: the twenty employees who were selected to pilot test questionnaire, the researcher, the SCI manager, the SCI staff, employees who did not stay with BST throughout the study period, and those who did not respond to the

questionnaire. The response rate was over 95%. At pre ODI stage fifty-eight sets of questionnaire were sent out to employees and got fifty-six completed questionnaires were returned. At post ODI stage fifty-one sets of questionnaire were sent out to employees and all of these were completely responded to.

3.4 Research Instruments, Tools and Other Data-Gathering Techniques and Procedures

This study used observations and semi-structured interview as instruments for qualitative method. In addition, it used survey as instrument for quantitative method. Data gathering was conducted before and after intervention.

3.4.1 Observation

A data gathering tool for the observation instrument was the observer. Observer was the researcher. Observer either participated or just presented in the real situation viewing employees' behavior. Observation guideline was available for observer. The observation guideline can be referred to from Appendix A. At some points, especially when employees are gathering and/or working in groups, photos were taken in order to determine whether the gathering group was comprised of inter-functional employees or intra-functional employees and how they related to each other. Observation details were recorded in observer's logbook.

3.4.2 Semi-structured Interview

A data gathering tool of the semi-structured interview method was the interviewer. The researcher was the interviewer. The interview guideline was available to interviewer. The interview guideline can be referred from Appendix B. Data gathering procedures was that the interviewer approached target respondent for permission to conduct interview. In case timing is suitable for respondent, an interview was conducted. In case timing is not suitable with respondent, the interviewer re-approached respondent at other time.

3.4.3 Survey

A data gathering tool of the survey method was questionnaire.

The questionnaire was separated into two parts. The first part was designed to gather five dimensions of respondent demographic information including age, marital status, education level, job function, years of service. The second part was designed to measure sub-variables; three sub-variables of employee synergy; and three sub-variables of innovation in organization. The three sub-variables of employee inter-functional coordination are shared vision and goal, clarity of roles and functions, and team reward system. The three sub-variables of employee synergy are sense of team identity, unity in diversity, and collaboration. The three sub-variables of innovation in organization are creativity, strategic perspective, and implementation. To prevent respondent fatigue, certain statements came up with negative phrased. Answers in this part require respondents to rate how strongly they agree or disagree with a statement, therefore this part incorporated a 7-point Likert-type scale ranging from

1 = Definitely disagree

2 = Disagree

3 = Inclined to disagree

4 = Not certain

5 = Inclined to agree

6 = Agree

7 = Definitely agree

A 7-point Likert-type scale was selected for this study for three reasons: 1) any lower point scale may not be sensitive enough for this study to detect the difference between Post ODI stage and Pre ODI stage; 2) although an even-point Likert-type scale (i.e. 4-point, 6-point) can eliminate the "Not Certain" in the choices so to lead respondents to take a stand in picking side and not to play safe by giving neutral answer, it is more important to let respondents respond freely. An odd-point Likert-type scale allow respondents more complete choices in giving feedback so to provide a fuller view of respondents' opinion; 3)Resulted from the pilot test, central tendency bias did not occur. There are respondents who hold very strong opinions one way or the other toward the question topics. Responses were dispersed throughout the seven options included in the scale. Hence, concluded that the 7-point scale is appropriate for this study.

Table 3.1 shows summarized variables, sub-variables, and number of questions asked per sub-variable. Question statements in questionnaire can be viewed on Appendix C.

Table 3.1: Summarized Variables, Sub-Variables, and Number of Questions

Variables	Sub-Variables	Question Items
Demographic	Age	1
	Marital status	1
	Education level	1
	Job Function	1
	Year of services	1
Eployee inter-functional coordination	Shared vision and goals	3
	Clarity of roles and functions	3
	Team reward system	4
Employee synergy	Sense of team identity	4
	Unity in diversity	5
	Collaboration	4
Innovation in organization	Creativity	3
	Strategic	3
	Implementation	4

The questionnaire aimed to take no longer than 30 minutes to complete. To ensure understanding of the questionnaire by employees at all levels, especially by the operational level employees, the questionnaire was translated into Thai language. To ensure correctness of translation and back translation of questionnaire, the translation, and back translation of questionnaire was reviewed by a Thai person who had lived in English speaking countries for ten years. Before use, questionnaire was pilot tested for reliability. Pilot test was done with twenty employees of BST, mostly members of the Change team. The Cronbach's alpha and normality test were also employed. Cronbach's alpha provides a measure of internal consistency, which reflects how well each of the item correlates with the entire scale. The general rule is that the Cronbach's alpha should not be lower than 0.70. The overall questionnaire received Cronbach's alpha coefficient

value at 0.936. Whereas employee inter-functional coordination as the first variable received Cronbach's alpha coefficient value at 0.940. Employee synergy as the second variable received Cronbach's alpha coefficient value at 0.930. Innovation in organization as the third variable received Cronbach's alpha coefficient value at 0.947. The questionnaire is therefore considered reliable. Table 3.2 illustrates Cronbach's alpha coefficient value of each variable as well as Cronbach's alpha coefficient of the overall questionnaire. Full details of reliability result of the questionnaire and of the three variables can be read from Appendix D, Appendix E, Appendix F, and Appendix G.

Table 3.2: Results of reliability tests on each variable and the overall questionnaire

Variables	Sub-Variables	Number of Items	Question No.	Number of Respondents	Cronbach Alpha Coefficient of Variables	Cronbach Alpha Coefficient of Questionnaire
Eployee inter-functional coordination	Shared vision and goals	3	1-3	20	0.940	0.936
	Clarity of roles and functions	3	4-6	20		
	Team reward system	4	7-10	20		
Employee synergy	Sense of team identity	4	11-14	20	0.930	
	Unity in diversity	5	15-19	20		
	Collaboration	4	20-23	20		
Innovation in organization	Creativity	3	24-26	20	0.947	
	Strategic	3	27-29	20		
	Implementation	4	30-33	20		

Normality test was to confirm if the population under consideration has normal distribution. Normality test on responses of the twenty pilot tested employees found a normal distribution from the pilot test result (see Appendix H).

After passing reliability checking, the questionnaire was made copies for distribution to target respondents. At pre ODI stage, a meeting was arranged for the SCI Manager and the researcher to remind target respondents of the objective of this study

and for the SCI Manager to explain the requirement of the questionnaire. Copies of questionnaire were distributed by hand to all employees of BST but excluding the researcher, the SCI manager, the SCI staff, and the twenty pilot tested employees. At post ODI stage, copies of questionnaire were distributed by hand to all employees of BST excluding employees who didn't participate in survey at pre ODI stage. At both pre ODI and post ODI stages, target respondents were asked to return a completed questionnaire by hand to the SCI staff. The SCI staff coded respondents with number.

3.5 Tools for Qualitative and Quantitative Analysis

Data gathered from observation instrument was analyzed by content analysis. Data gathered from semi-structured interview instrument was analyzed in combination between content analysis and the four perspective analysis following The BrainMap model. Quantitative data in relation to the first, the second, and the third hypothesis was analyzed by paired t-test, 2-tailed, 95% significant level. Quantitative data related to the fourth hypothesis was analyzed by regression, 2-tailed, 95% significant level. SPSS was used for processing all quantitative data.

The BrainMap model is a practical toolkit created by Dudley Lynch. The BrainMap model is based on the principle that not everyone sees things in the same way. This is because people don't see the world as it is, but people see the world the way one's think. The BrainMap suggested four different thinking styles: I-Control perspective (precision thinking style); I-Explore perspective (open-ended thinking style); I-Pursue perspective (aim/act thinking style); I-Preserve perspective (feelings-powered thinking style). In addition, the BrainMap model suggested that most people have access to all

four of the major styles of functioning but people tend to prefer one thinking style to others. However, individuals can rethink how they think and to think differently with all the four different thinking styles in order to better see reality. Any shift or wider coverage of perspectives imply a change of person's viewpoint from narrow to broader view , multiple views or the ability to see more things at the same time, from loose changes one at a time to multiple links all at once. This indicates more insight, higher wisdom, better connectivity, and emerging of synergy or "the whole is greater than the sum of each part".

Criteria for differentiating the four perspectives are described below.

- Criteria for I-Control perspective are consistency, certainty, standards, time-related issues.
- Criteria for I-Explore perspective are issues on creativity, flexibility, freedom of ideas and variety.
- Criteria for I-Pursue perspective are issues related to results, activity, productivity, and performance.
- Criteria for I-Preserve perspective are issues related to affinity, relations, harmony, and posterity.

3.6 Tools Design/Development of OD Interventions

After the researcher as one of the manager of BST sensed a call for BST to foster innovation in the organization, the researcher then talked to a few managers of BST (most of them are key functional managers) to seek their personal opinions in a separate manner whenever time and opportunity allowed, for example some during morning

coffee preparation, some during lunch, some after working hours. Some managers whom the researcher talked to shared the same view as the researcher that BST need to foster innovation, while other managers expressed that they did not understand what innovation is about. The researcher reviewed various company data such as income statements, balance sheets, cash flow reports, sales records, employee performance development and appraisal records and found that BST has a healthy financial status, and competent employees.

The researcher also checked records on awards the company received from its major customers and found that BST was nominated best supplier by most of its key customers. By talking to different managers plus some non-managerial staff, the researcher received their input that BST has been receiving high rating from its customers. By viewing the employees' income, fringe benefit, working conditions, and by talking with different employees both at managerial and non-managerial levels, it was confirmed to researcher that there is a relatively high level of employee satisfaction within BST. However, the researcher together with a number of managers exchanged views, and based on their organizational observations, they determined that employees of BST work in "silos", there is relatively low cooperation between different functions, and, indeed, there is certain level of conflict between some job functions.

Meantime, the researcher reviewed the literature on organizational development, change management, change leadership, action research, organization innovation, market-orientation, inter-functional coordination, and synergy. The researcher shared some knowledge with some of the BST employees, most of whom are functional managers, because the researcher had in mind to invite them as members of the Change

Team. Realizing the new level of possible change impact, these functional managers of BST discussed and agreed with the researcher to initiate a program to enhance employee cross-functional cooperation and employee synergy in order to foster innovation in BST. Statement of research problem was written. Research objectives, research questions, research hypothesis, scope and limitations were set.

Based on the identified research objectives and research questions, ODI was designed to enhance 1) employee inter-functional coordination 2) employee synergy. Designed ODI therefore was related to setting shared vision; setting shared goal; classifying clear roles and functions; establishing team performance evaluation and reward; arranging team building activities; enhancing cross functional interaction, socialization, and interpersonal relationships. Figure 7 in below illustrates the ODI framework.

Figure 7: Intervention Framework

OD intervention processes were as follows:

After having decided on the action research approach, one of the very first actions in the investigation was to bring together a representative group of employees to participate in the research. This group of employees was named the Change Team. Participants were the key functional managers plus some other employees whom were viewed by the researcher and the key functional managers as having high influence on other employees of BST. The rational for inviting key functional heads as participants was to ensure a wide range of perspectives, because each individual had deep knowledge about some aspect of the organization and /or the environment in which it operated.

The researcher shared the research objective and described the philosophy of action research for intervening and collecting data to the members of Change Team. Ample time was allowed for members to ask clarifying questions. The Change Team members worked together to draft out an intervention action plan. The action plan was to focus not only on the change objective, but also to focus on the change steps and process involved (that was, to answer the question, how do we get there?) and the necessary resources e.g. finance, time, information, space and workforce were discussed and allocated.

Ground rules for the characteristics of the Change Team are written below:

- Each Change Team member has the ability to argue and debate in search of understanding, not from the egoistic need to win a point or protect a parochial interest.
- Each Change Team member retains the respect of every other member, without exception.

- The team members meet periodically, as frequently as once per month.

The study was communicated to organization-wide employees of BST. Intervention activities during the four months intervention were determined by the Change Team. The Change Team met periodically to monitor progress (How are we doing?), and to feed the results back to the change process. This, as circumstances require, had led to modification and refinement of change plan and to taking corrective action in the cyclical process of study.

During the whole intervention period, Cross functional employee teamwork was promoted through different approaches that the Change Team deemed suitable for the context of BST in its particular situation. In order to minimize resistance to change, communications were carefully delivered considering different preferences/styles of communicating partners. This means that communications were included both drawing the big picture to represent the whole concept and the delivery of details in facts and figures; and they were both methodical and logical in how to arrive at conclusions and illustrative of personal interaction through stories and demonstrations.

Whenever actions were taken, data was gathered to measure and determine the effects of the actions. Data was recorded in written form and occasionally with some photos.

3.7 Data Collection/Documentation of The Change Process

During the change process data and its collection procedures are described below:

- Meeting agendas and minutes of the Change Team including team member responses, based on prompting questions developed at key points during the

ODI planning stage and ODI process stage. Data were recorded in written form at the time processes were taking place. Meeting minutes were taken in writing by the researcher.

- Data were gathered while actions were on-going and after actions have been taken to measure and determine the effect of the action. Data was recorded in written form and/or photos at the point the data were generated.

3.8 Conclusion

This research deployed both qualitative and quantitative methods in complementing each other. Under the qualitative method, observation was used to gather data relating to employees' behaviors and meaning of behaviors; semi-structured interview was used to gather data relating to employees' private views and feelings. Under the quantitative method, survey was used to gather employees' perceptual data. Subject of study of all instruments were BST employees. Observation data was analyzed by content analysis. Semi-structured interview data was analyzed in combination between content analysis and perspective analysis. Survey data was analyzed by either paired t-test or regression according to its related hypothesis.

Chapter Four

Analysis, Findings, Interpretations, and Insights

As stated in earlier chapter, problem statement of this dissertation is to determine the impact of an organizational development intervention on the improvement of employee inter-functional coordination and employee synergy in order to foster innovation in BST. Aspiration of the study is to arrive at designing and implementing efficient ODI, which provide positive effect on employee inter-functional coordination, and employee synergy, which would have extended impact on level of innovation within BST. This means, independent variables of the study are employee inter-functional coordination and employee synergy, whereas dependent variable of the study is innovation in organization.

The study employed action research model, and adopted hybrid quantitative and qualitative research approaches using questionnaire survey, participatory and non-participatory observation, and semi-structured interview. Subject of study were employees of BST in two locations: office and factory. The ODI process was conducted for four months during end August – end December 2009. ODI were related to setting shared vision; setting shared goal; clarifying roles and functions; establishing team performance evaluation and reward; arranging team building activities; enhancing cross functional interaction, socialization, and interpersonal relationships. Sequence of discussion in this chapter started with summarizing the interventions to illustrate what happened during the ODI stage; followed by analysis, findings, and interpretations of qualitative data; analysis, findings and interpretations of quantitative data; final findings

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(findings and interpretation arrived from combination of qualitative findings and quantitative findings; then close with a chapter conclusion).

4.1 Summary of interventions

As suggested by the study topic, ODI in this study was designed for two purposes: 1) to improve employee inter-functional coordination 2) to improve employee synergy. Both purposes were aimed to further improve innovation in BST. ODI focusing on improvement of employee inter-functional coordination was done through five types of meetings: 1) vision discussion and conclusion meetings; 2) Shared goal setting meeting; 3) Team reward determining meeting 4) Roles and functions clarification meetings; 5) Shared goal and intervention update meetings. ODI focusing on improvement of employee synergy was done through the following activities: 1) a session with monk preaching; 2) company lunches; 3) a trip to do charity for double disabled children; 4) company books suggesting and sharing; 5) a sports day team building. Details of each intervention are described in below.

- Vision discussion and conclusion meetings: The meeting objective was to create a vision statement for BST. Participants in this type of meeting were division heads of the organization. Although BST shared vision with its mother company, this was not well communicated to employees. Most employees didn't know about this. In addition, those who know of it, could not remember the vision statement. Initially, participants intended to write a new vision statement particularly for BST. But finally, they decided to continue using the shared vision of the mother company "We create unique

taste and scent experiences people love". In addition, participants concurred to intentionally communicate vision statement to all employees.

- Shared goal setting meeting: Objective of the meeting was to set up a shared goal, which the whole organization and its employees should work toward in order to strengthen performance of organization. This meeting was held since the early stages of ODI. Participants were all the key division heads of organization. Participants discussed and agreed that the shared goals for cross- functional team were to achieve organization sales budget while keeping controllable expenses at 10% lower than budget. Monthly milestone on both sales, and controllable expenses were set.
- Team reward determining meeting: Objective of this meeting was to determine a compensation scheme, which link to team performance of employees in the whole organization. This meeting was organized after the shared goal setting meeting. Participants were all the key division heads of organization. Given that participants didn't have authority to reset the reward system which BST has been using because BST is expected to follow a reward system of BSG. Participants discussed and agreed for an amount of budget to be given as special reward to all employees equally at the end of ODI process if the shared goals were achieved. The reward was in additional to the usual compensation employees were getting.
- Roles and functions clarification meetings: Objectives of this meeting were 1) to resolve unclear areas between job functions; 2) to explain to employees of concern to be clear of scope of their job, their responsibility, their authority,

and their expected roles; 3) to allow employees gain better understanding on their roles and functions related to their work positions. This type of meeting was arranged at any occasion when employees' behavior were not in line with their expected roles and functions or whenever issues between employees occur due to job conflicts. Participants were professionally related as employees and managers. When issues arose on roles and functions between divisions, it usually involved both employees and managers of those related divisions, and sometimes with the organizational representative director. During ODI stage, six meetings on roles and functions clarification were held. One meeting was to resolve conflict within a division. Another five meetings were to resolve conflict between related divisions. Employees provided feedback through casual conversation that this intervention help smoothen workflow within organization. Participating employees gave feedback that they felt very comfortable performing their jobs better than before and they have better relationship with their work related colleagues.

- Shared goal and intervention update (shared performance update) meetings: Objectives of this type of meeting focus on 1) sharing intervention feedback to the Change Team members; 2) allowing the Change Team members to determine intervention improvement (if any); 3) updating performance of the cross functional team against milestone of the shared goals. Participants of this type of meeting were the Change Team members. This type of meetings was held once a month. Meeting climate was full of fun and very constructive. Participants shared lots of ideas and comments. After meetings,

the updated performances of shared goals together with additional monthly interventions were widely communicated to the organization and its employees.

- A session with monk preaching: One of the famous monks who often preach on an early morning television program was invited to preach at BST. Content of his preaching was focus on teamwork. All employees who are Buddhist (approximately 90% of employee population) participated in this intervention. Employees commented through casual conversations that this intervention was impressive and useful as it gave a feeling of gratification, it softened the heart of people, it prepared employees to better accept one another and to build better friendship, it encouraged employees to work in collaboration, employees felt good toward the company because the company provided upliftment to their feelings. It also allowed many employees across divisions to jointly organize all the necessities for the event. This intervention enhanced personal relationship of employees from different divisions.
- Company lunches: Participants were employees of the whole organization. However, the event at office and factory were arranged separately. Feedbacks from employees were very positive, as the activity didn't take much of their working time. This activity promoted positive climate in the workplace. Employees felt relaxation, enjoyment, and happiness. It generated positive feeling as well as positive working environment. Through this activity, employees also develop closer personal relationship with colleagues within one's division and colleagues from other divisions. Due to its positive

feedback and easy arrangements, company lunches were organized twice during ODI period.

- A trip to do charity for double disabled children: There were approximately 30 employees who joined this activity. The activity was organized on one public holiday. The company arranged shuttle buses for employees who would like to join the activity. The company also sponsored budget to buy lunch for all the double disabled children at the foundation. Employees brought extra things for donation such as clothes, toothpaste, toothbrush, detergent, fabric softener, soap, floor cleaner, etc. Feedbacks from employees who joined the activity were very positive. They felt fulfillment as they had the chance to do something good for social cause. While they felt sympathy to those children, they also felt a greater amount of kindness in their heart. They begin to empathize with their colleagues. This activity enhanced the employees' team spirit. Employees who did not join the activity also gave positive feedback about the activity but the main reason for their non-participation in this activity was because it was arranged on a public holiday and they did not want to disrupt their family time.
- Company books suggestion and sharing drive: The company offered a budget for employees to buy three books per month. Employees can recommend any kinds of book, which are of their interest. However, employees must give reason why they are interested in their recommended book. Once the recommending employees finished reading their recommended book, those books are on offer for other employee reading. Each month, there are more

than three participating employees. Employees who made recommendation are usually interested for another employee to read their recommended book. The one who recommends and the next reader usually got in touch and exchanged comments about the book. In addition to the company books, some employees brought their personal books for lending. Employees gave positive feedback on this intervention. It took very little budget from the company, but it gave good feelings to employees. Employees felt good toward the company and felt good with colleagues who recommended good books and offered their personal books. Employees had the chance to know personal interests and viewpoints of their colleagues.

- A sports day team building: All employees participated in this intervention. Three weeks before the sports day event, employees were separated into two teams by draw. Since then employees of each team met regularly to plan strategically, to select sportsman, to organize team resources, to practice cheering including various cheering performances. The event was arranged at a famous sports club located at a suburb of Bangkok. This was the most exciting and fun activity for most employees. Employees gave high commendations on this intervention as it promoted very good teamwork and team spirit among them. It also promoted employees' commitment to the company.

4.2 Analysis, findings, and interpretations of qualitative data

Qualitative data at pre ODI stage and at post ODI stage in this study were collected separately by observation and semi-structured interview. Sub-grouping of employees by group of job functions and by location, that is by office and factory was ensured coverage in data collection for both observation and semi-structured interview.

- Data from observation was analyzed by content analysis. Data from semi-structured interview was analyzed in combination between content analysis and the four perspectives/thinking styles suggested by The BrainMap framework.

Findings, conclusion of findings and interpretations were drawn from combined analysis results of observation and semi-structured interview in relation to research questions.

Sequence within this section follow the below topic list.

4.2.1 The extent ODI has impact on employee inter-functional coordination

4.2.2 The extent ODI has impact on employee synergy

4.2.3 The extent ODI has impact on innovation in organization

4.2.4 The extent the employee inter-functional coordination and employee synergy relate to innovation in organization

4.2.5 Conclusion of findings and interpretation from qualitative data

4.2.1 The extent ODI has impact on employee inter-functional coordination

Data from observation at pre ODI stage related to employee inter-functional coordination illustrated that employees concentrated on their divisional goal more than

the shared organizational goals. Employees were not working in alignment toward a common goal. Roles and functions of some positions were not clear to employees. Employees gave higher value on reward from divisional performance than reward from organizational wide performance. Employees focused more on individual reward and divisional reward, than the overall organizational team reward. This implies that the team reward system at pre ODI stage was not effective (see appendix I).

The evidences observed suggest that employees concentrated on their divisional goal more than the shared organizational goals and employees were not working in alignment toward a common goal, these observations are: 1) many employees made decisions, which they believe will benefit them most and moved forward with those decisions although they knew of possible negative effects on other divisions; 2) some employees mentioned that problems of other divisions are not their issue; 3) most employees monitored their divisional performance against divisional goal, but did not talk about organizational performance.

Observation evidences on unclear roles and functions of some positions are 1) some employees forward works to wrong divisions; 2) there were mistakes in work process that resulted from employees within related job functions to think about tasks is not within their scope of responsibility; 3) there were work related arguments among employees on which division and or who within the division should be responsible for a particular task.

The evidences observed suggest that the team reward system at pre ODI stage were not effective and these are 1) many employees made decisions which they believe will benefit them most and moved forward with those decisions although they knew of

possible negative effects on other divisions; 2) some employees mentioned that problems of other divisions are not their issue; 3) most employees talked about only two types of reward: the year end bonus and salary, meaning that both are linked to divisional performance, rather than company performance.

Whereas, data from observation at post ODI related to employee inter-functional coordination illustrated that employees were interested in performance of other divisions which affected the overall performance of the organization. Efforts of employees from different divisions were aligned. Employees cared about organizational performance and goals. Roles and functions became clear to employees. Employees were motivated by the ODI team reward (see appendix J).

The evidence observed suggest that employees were interested in performance of other divisions, which affected performance of the overall organization, that is many employees asked about problems of other divisions and offered help.

The evidences observed suggest alignment of cross-functional employees efforts and these are 1) in general, decision made by employees cover concerns of different related divisions 2) employees from different divisions exchanged ideas to improve effectiveness in serving customers.

The evidence observed suggest that employees showed care toward organizational performance and goals, that is employees monitored organizational performances against organizational goals.

The evidence observed suggest that roles and functions were clear to employees and these are 1) in general, employees contacted the right person in other divisions when

forwarding work or follow up work; 2) works flowed smoothly from employee to employee and from division to division.

The evidences observed suggest that employees were motivated by the team reward during ODI process and these are 1) employees often talk about team reward; 2) employees were actively helping one another across all job functions in order to achieve the team reward.

Data from semi-structured interview at pre ODI related to employee inter-functional coordination illustrated that responses of employees related to shared vision and goal, clarity of roles and functions, and team reward system were limited mainly to I-Control perspective with a few I-Pursue perspective and I-Preserve perspective, but without any I-Explore perspective. Whereas data from post ODI stage illustrated that responses of employees related to shared vision and goal, clarity of roles and functions, and team reward system were shifted and broadened compared to responses gathered at pre ODI stage because responses at post ODI covered all four perspectives and with higher degree within each perspective. Table 4.1, 4.2, 4.3 in the below illustrates the comparison of respondents' perspectives at pre ODI stage and at post ODI stage related to three sub-variables: shared vision and goal; clarity of roles and functions, and team reward system respectively (see responded statements from appendix K, L, M, N, O, P).

Table 4.1: Comparing perspectives at pre and post ODI stage related to sub-variable – shared vision and goal

Semi-Structured Interview - Response and Analysis Variable - Employee Inter-functional Coordination Sub-Variable - Shared Vision and Goal								
Pre-ODI					Post-ODI			
Respondent	IC	IE	IPU	IPR	IC	IE	IPU	IPR
R6	x				x	x	x	x
R27	x				x		x	x
R29	x			x	x	x	x	x
R39	x		x		x		x	x
R51				x	x		x	x
R57	x			x	x		x	x
R61	x						x	x
R66			x		x		x	
R67	x		x		x		x	x
R73			x	x	x		x	x

Table 4.2: Comparing perspectives at pre and post ODI stage related to sub-variable – clarity of roles and functions

Semi-Structured Interview - Response and Analysis Variable - Employee Inter-functional Coordination Sub-Variable - Clarity of Roles and Functions								
Pre-ODI					Post-ODI			
Respondent	IC	IE	IPU	IPR	IC	IE	IPU	IPR
R6	x				x	x	x	
R27	x				x			x
R29	x				x		x	
R39	x				x		x	
R51	x				x		x	
R57	x				x			x
R61	x				x			x
R66	x				x			x
R67	x				x		x	
R73			x		x			x

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Table 4.3: Comparing perspectives at pre and post ODI stage related to sub-variable – team reward system

Semi-Structured Interview - Response and Analysis Variable - Employee Inter-functional Coordination Sub-Variable - Team Reward System								
Pre-ODI					Post-ODI			
Respondent	IC	IE	IPU	IPR	IC	IE	IPU	IPR
R6	x			x	x			x
R27	x				x			x
R29	x				x			
R39	x				x			x
R51	x						x	x
R57	x		x		x			x
R61	x				x		x	x
R66	x				x			x
R67	x				x		x	x
R73	x						x	x

In addition, most of the respondents reacted in a more positive tone at post ODI stage (all respondents under sub-variable: shared vision and goal; eight out of ten respondents under sub-variable: clarity of roles and functions; eight out of ten respondents under sub-variable: team reward system - see appendix K, L, M, N, O, P). Indeed, none of respondents gave higher degree of negative response at post ODI stage than at pre ODI stage. For example, at pre ODI stage, respondent code R6 stated "Our organization structure is functional, therefore our goal is functional goal". However, at post ODI the respondent code R6 stated "Now I can feel that people have the same goals in mind, which I didn't feel before". At pre ODI stage, respondent code R29 stated "With the current organization structure, sometimes I am not clear whom should I go to for some specific issue. There is some degree of gray areas". However, at post ODI stage respondent code R29 responded that - there are very few role conflicts nowadays.

People know who to follow up their work with. People are doing what they should do. At pre ODI stage, respondent code R51 responded that - reward system of this company is getting worse. It is de-motivating. It is certainly not supporting teamwork". However, at post ODI stage respondent code R51 stated "I don't think the core reward system promotes teamwork, but the added on has high affect on teamwork". (see appendix K, L, M, N, O, P for responses of all interviewees related to employee inter-functional coordination).

Although there were some respondents who gave more or less the same tone at pre and post ODI stages (respondent code R6 and R67 in the section of clarity of roles and functions; respondent code R61 and R66 in team reward system - see appendix L, O, M, P). This small group of respondents was those who were neutral or relatively satisfied with the level of employee inter-functional coordination at pre ODI stage. This indicated that there was a higher level of employee inter-functional coordination at post ODI stage compared to level of employee inter-functional coordination at pre ODI stage.

Based on qualitative data using triangulation analysis, the level of employee inter-functional coordination at pre ODI stage is seen to be at rather low level. Whereas employee inter-functional coordination at post ODI stage is seen to be at relatively high level. Because there was a clear difference between employee inter-functional coordination at pre ODI stage and employee inter-functional coordination at post ODI stage, it can therefore be concluded that the applied ODI has high impact on employee inter-functional coordination.

4.2.2 The extent ODI has impact on employee synergy

Data from observation at pre ODI stage related to employee synergy illustrated that in general, employees identified themselves with their division rather than with organization, employees has negative attitude about the company. There was certain level of issue on sense of team identity. Employees ha negative attitude about their colleague. Employees didn't accept some of their colleagues. There was low level of trust among employees. Cross-functional employees were not in unity. Employees from different divisions didn't collaborate with one another. There was low level of cross functional collaboration. Employees committed to individual success. (see appendix Q).

The evidences observed suggest that employees identified themselves with their division rather than with organization and these observations are 1) most employees monitored their divisional performance against divisional goal, but did not talk about organizational performance; 2) many employees made decisions which they believe will benefit them most and moved forward with those decisions although they knew of possible negative effects on other divisions; 3) some employees mentioned that problems of other divisions are not their issue.

The evidence observed suggest that employees has negative attitude about the company and that is many employees complained about the way the company treat them.

The evidence observed suggest that employees has negative attitude about their colleagues and that is many employees complained about one another.

The evidences observed suggest that employees from different divisions were not in unity and these observations are 1) many employees made decisions which they believe will benefit them most and moved forward with those decisions although they

knew of possible negative effects on other divisions; 2) There were work related arguments among employees on which division and or who within the division should be responsible to perform a particular task.

The evidence observed suggest that employees didn't accept some of their colleagues which meant there was a certain level of issue related to employee unity in diversity and was noted when some particular employees participated in meetings, the atmosphere of those meetings was tensed and stressful. The team had tension. People were very careful what to speak. Whenever, the particular employees didn't presence, other participants were relief. Lots of sensible comments were shared.

The evidence observed suggest that there was low trust among employees by the tone of employees' communications that sounded defensive.

The evidences observed suggest that employees from different divisions did not collaborate with one another are 1) some employees mentioned that problems of other divisions are not their issue; 2) in general, employees from different divisions stayed away from others and had little interaction; 3) employees worked separately focusing on individual tasks.

Whereas, data from observation at post ODI related to employee synergy illustrated that employees from different divisions had good personal relationship. Employees had positive attitude about the organization. Employees cared for one another and cared for the organization. Employees from different divisions accepted, respected, and valued one another. There was good level of collaboration among employees from different divisions (see appendix R).

The evidence observed suggest that employees from different divisions have good personal relationship and that is when employees helped buy breakfast for people in other divisions.

The evidence observed suggest that employees have positive attitude about the organization and that is when employees discussed positively about the organization.

The evidence observed suggest that employees care for one another and cared for the organization and that is in general, employees constructively criticized one another.

The evidence observed suggest that employees from different divisions teamed up together and are committed to organization, these are 1) in general, meetings included participants from different divisions. Participants proposed solutions and determined what was best for the organization without feeling the pride of ownership; 2) employees from different divisions participated actively and positively at work and in meetings; 3) employees pulled together and worked overtime (without pay) to get the job done.

The evidences observed suggest that employees from different divisions accepted, respected, and valued one another and these are 1) employees from different divisions having lunch together; 2) employees helped buy breakfast for people in other divisions; 3) many employees asked about problems of other divisions and offered help; 4) employees from different divisions exchanged ideas to improve effectiveness in serving customers; 5) in general, employees constructively criticized comments of one another.

The evidences observed suggest that there was good level of collaboration among employees from different divisions and these are 1) employees from related divisions jointly visit customers; 2) employees from different divisions exchanged ideas to improve effectiveness in serving customers; 3) in general, business decisions were jointly made by

employees from different divisions; 4) employees from different divisions participated actively and positively in meetings and projects; 5) many employees asked about problems of other divisions and offered help.

Data from semi-structured interview during pre ODI stage related to employee synergy illustrated that responses of employees related to sense of team identity, unity in diversity, and collaboration were limited mainly to I-Control perspective and I-Preserve perspective with a few I-Pursue perspective, but without any I-Explore perspective. Whereas data from post ODI stage illustrated that responses of employees related to sense of team identity, unity in diversity, and collaboration were broadened and shifted. Responses at post ODI stage covered all four perspectives with some degree of shift from I-Control perspective to other three perspectives, especially to I-Pursue perspective and I-Preserve perspective. Table 4.4, 4.5, 4.6 in the below illustrates the comparison of respondents' perspectives at pre ODI stage and at post ODI stage related to three sub-variables: sense of team identity, unity in diversity, and collaboration respectively (see responded statements from appendix S, T, U, V, W, X).

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Table 4.4: Comparing perspectives at pre and post ODI stage related to sub-variable – sense of team identity

Semi-Structured Interview - Response and Analysis Variable - Employee Synergy Sub-Variable - Sense of Team Identity								
	Pre-ODI				Post-ODI			
Respondent	IC	IE	IPU	IPR	IC	IE	IPU	IPR
R6	x				x			x
R27	x				x			x
R29	x			x			x	x
R39	x				x			x
R51	x			x			x	x
R57	x				x		x	x
R61				x				x
R66			x			x		x
R67			x		x		x	x
R73			x	x			x	x

Table 4.5: Comparing perspectives at pre and post ODI stage related to sub-variable – unity in diversity

Semi-Structured Interview - Response and Analysis Variable - Employee Synergy Sub-Variable - Unity in Diversity								
	Pre-ODI				Post-ODI			
Respondent	IC	IE	IPU	IPR	IC	IE	IPU	IPR
R6				x		x		x
R27	x			x	x			x
R29	x			x	x		x	x
R39	x							x
R51				x		x	x	x
R57	x			x	x		x	x
R61				x			x	x
R66	x							x
R67			x				x	x
R73				x			x	x

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Table 4.6: Comparing perspectives at pre and post ODI stage related to sub-variable – collaboration

Semi-Structured Interview - Response and Analysis Variable - Employee Synergy Sub-Variable - Collaboration								
	Pre-ODI				Post-ODI			
Respondent	IC	IE	IPU	IPR	IC	IE	IPU	IPR
R6			x	x				x
R27	x				x		x	
R29	x						x	x
R39	x						x	x
R51	x				x		x	
R57	x					x		x
R61				x			x	x
R66	x					x	x	x
R67			x				x	x
R73				x			x	

In addition, most respondents reacted in a more positive tone at post ODI stage (eight out of ten respondents under sub-variable: sense of team identity; seven out of ten respondents under sub-variable: unity in diversity; eight out of ten respondents under sub-variable: collaboration - see appendix S,T, U, V, W, X). Indeed, none of the respondents gave higher degree of negative response at post ODI stage compared with pre ODI stage. For example, at pre ODI stage, respondent code R67 stated "people in this company work for their own benefits. Their motivation is from what they can get from the company. They are not committed to the company". However, at post ODI stage, respondent code R67 stated "Every company has good points and bad points. Overall, I don't think I can find a better company than BST. I don't think people here struggle to move out of this company. I feel we work happily here. Perhaps this is the reason why there are many long-tenured employees in this company." At pre ODI stage, respondent code R51 responded that – we stay in our group and try to keep distance with those who have different mindset. However, at post ODI stage, respondent code R51 stated "Our

working environment is lively and friendly. Most people dared share their thinking including those that are diverse." At pre ODI stage, respondent code R66 stated "I think that most people in this organization tend to hold back their opinions and honest concerns in order to avoid conflict during staff meetings and other interactions." However, at post ODI stage respondent code R66 responded – when things went wrong, we are not pointing finger to one another. We always collaborate to find ways to satisfy customers first." (see appendix S, T, U, V, W, X for responses of all interviewees related to employee synergy).

Although there were some respondents who gave more or less the same tone at pre and post ODI stage (respondent code R57 and R61 in the section of sense of team identity; respondent code R6, R57, and R73 in the section of unity in diversity; respondent code R6 and R73 in the section of collaboration – see appendix S, T, U, V, W, X). This small group of respondents was those neutral or relatively satisfied with the level of employee synergy at pre ODI stage. This indicated that there was a higher level of employee synergy at post ODI stage compared to level of employee synergy at pre ODI stage.

Based on qualitative data using triangulation analysis, the level of employee synergy at pre ODI stage is sensed to be at rather low level. While employee synergy at post ODI stage is sensed to be at relatively high level. It is observed that there was a clear difference between employee synergy at pre ODI stage and employee synergy at post ODI stage, it can therefore be concluded that the applied ODI has high impact on employee synergy.

4.2.3 The extent ODI has impact on innovation in organization

Data from observation at pre ODI stage related to innovation illustrated that there was relatively low level of creativity. Employees did not apply strategic perspective in relation to organizational performance. There was low level of applying new ideas into practice (see appendix Y).

The evidences observed suggest relatively low level of creativity at pre ODI stage and these are 1) employees worked in a routine way; 2) in general, employees seldom propose new ideas or ways of solving problems.

The evidence observed suggest that employees did apply strategic perspective in relation to organizational performance and that is in general, employees gave full endeavor in serving customers without comparing effects of cost and benefit to the organization.

The evidence observed suggest low level of implementation during pre ODI stage and that is employees worked in a routine way.

Whereas, data from observation at post ODI related to innovation illustrated that there was relatively high level of creativity. Employees seldom applied strategic perspective in relation to organizational performance. There was relatively low level of applying new ideas into practice. (see appendix Z).

The evidence observed suggest a relatively high level of creativity and these are 1) employees from different divisions exchanged ideas to improve effectiveness in serving customers. They proposed to differentiate between high potential customers and low potential customers, and planned different levels of service in serving the two different groups of customers; 2) in meetings, both formal and informal, employees

generated a vast number of ideas or solutions to problems and questions, and happily leveraging ideas of colleagues.

The evidence observed suggest that employees seldom applied strategic perspective in relation to organizational performance and that is in general, employees gave full endeavor in serving customers without comparing effects of costs and benefits to the organization. However, there were some occasions when employees applied strategic perspective in relation to organizational performance such as, 1) in one meeting when employees from different divisions exchanged ideas to improve effectiveness in serving customers, they differentiated between high potential customers and low potential customers, and planned different levels of service in serving the two different groups of customers; 2) there were few occasions when that group of employees, sometimes from within the same division, sometimes from between divisions, jointly evaluated cost and benefits of different business alternatives in order to determine the best business option for the organization.

The evidence observed suggest there was relatively low level of implementation and that is not many of new business ideas were implemented by employees. Employees continue to work with existing methods.

Data from semi-structured interview at pre ODI related to innovation illustrated that responses of employees related to creativity, strategic perspective, and implementation were limited mainly to I-Control perspective with a few I-Pursue perspective, but without I-Explore perspective and I-Preserve perspective. Whereas data from post ODI stage illustrated that responses of employees related to creativity, strategic perspective, and implementation were broadened and shifted. Responses at post ODI

stage covered all four perspectives with some degree of shift from I-Control perspective to all other three perspectives. Table 4.7, 4.8, 4.9 in the below illustrates the comparison of respondents' perspectives at pre ODI stage and at post ODI stage related to the three sub-variables: creativity, strategic perspective, and implementation respectively (see responded statements from appendix AA, AB, AC, AD, AE, AF).

Table 4.7: Comparing perspectives at pre and post ODI stage related to sub-variable – creativity

Semi-Structured Interview - Response and Analysis Variable - Innovation in Organization Sub-Variable - Creativity								
	Pre-ODI				Post-ODI			
Respondent	IC	IE	IPU	IPR	IC	IE	IPU	IPR
R6	x					x	x	
R27	x					x		
R29	x				x	x	x	x
R39	x				x	x		
R51	x		x			x	x	
R57	x					x	x	x
R61						x	x	x
R66	x					x	x	
R67			x		x	x		
R73			x			x	x	x

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Table 4.8: Comparing perspectives at pre and post ODI stage related to sub-variable – strategic perspective

Semi-Structured Interview - Response and Analysis Variable - Innovation in Organization Sub-Variable - Strategic Perspective								
Pre-ODI					Post-ODI			
Respondent	IC	IE	IPU	IPR	IC	IE	IPU	IPR
R6	x				x	x	x	x
R27	x				x	x	x	
R29	x				x		x	
R39	x				x		x	
R51	x				x	x		x
R57	x				x	x	x	
R61	x				x		x	
R66			x		x		x	
R67	x				x	x	x	
R73			x		x	x	x	

Table 4.9: Comparing perspectives at pre and post ODI stage related to sub-variable – implementation

Semi-Structured Interview - Response and Analysis Variable - Innovation in Organization Sub-Variable - Implementation								
Pre-ODI					Post-ODI			
Respondent	IC	IE	IPU	IPR	IC	IE	IPU	IPR
R6	x		x		x		x	
R27	x				x			x
R29	x				x		x	
R39	x				x			x
R51	x		x		x		x	
R57	x				x		x	x
R61	x					x	x	
R66	x				x			x
R67			x		x		x	
R73	x		x				x	x

In addition, most of the respondents reacted in a more positive tone at post ODI stage (six out of ten respondents under sub-variable: creativity; seven out of ten

respondents under sub-variable: strategic perspective; seven out of ten respondents under sub-variable: implementation - see appendix AA, AB, AC, AD, AE, AF). Indeed, none of the respondents gave higher degree of negative response at post ODI stage than at pre ODI stage. For example at pre ODI stage, respondent code R66 responded to creativity as - some people in this organization have good ideas, but some people are not, they usually rely on guidance of managers in solving problems. However, at post ODI stage this same respondent responded - "Yes, I think most people in this company like to think of new ideas. Actually, we enjoy leveraging our new ideas. It was fun". At pre ODI stage respondent code R66 responded to strategic perspective as – I don't know much about this question. Managers make business decisions; I don't know what the criteria they use. I am not sure we are strategic. We follow orders of managers. However, at post ODI stage this same respondent shared - I think different business decision need different criteria. I am not in the position to answer this question. I think people here are strategic. We compare cost and benefits before making decision. At pre ODI respondent code R66 responded to implementation as – if it is commanded by the boss, people usually follow. But if it is self initiative, people tend to hesitate. Perhaps they are afraid that their initiative may cause problem to company and backfire at them. However, at post ODI stage this same respondent responded to implementation as – The process is not difficult to implement new ideas. We can start implementation right after agreement from meeting (see appendix AA, AB, AC, AD, AE, and AF for responses of all interviewees related to innovation).

Although some respondents gave more or less the same tone at pre and post ODI stage (respondent code R27, R57, R67, and R73 in creativity; respondent code R27, R39,

and R61 in strategic perspective; respondent code R29, R61, and R67 in implementation – see appendix AA, AB, AC, AD, AE, AF). Majority of respondents who didn't respond with more positive viewpoint were those who were neutral or relatively satisfied with the level of innovation at pre ODI stage (respondent code R27, R57, R67, and R73 in creativity; respondent code R27 in strategic perspective; respondent code R29, R61, and R67 in implementation – see appendix AA, AB, AC, AD, AE, AF). Anyway, there were two responses which were negative at both pre ODI stage and post ODI stage (respondent code R39 and R61 in strategic perspective – see appendix AB, AE). This indicated that there was somewhat higher level of innovation at post ODI stage compared to level of innovation at pre ODI stage, although the difference was not so clear, especially in the area of strategic perspective and implementation. The rationale on the difference in the area of strategic perspective and implementation were low can be explained. That eventhough respondents have fun initiating new ideas but they were not serious enough in taking those ideas into practice hence did not pay much attention on the affects of those ideas to organization (see response of respondent code R61 in appendix AE). In addition, time, risk, part of job, and intention were the reasons given by respondents as factors affecting implementation (see response of respondents code R6, R27, R29, R39, R51, R57, R61, and R67 in appendix AF)

Based on qualitative data using triangulation analysis, the level of innovation at pre ODI stage is sensed to be at relatively low level. Whereas innovation at post ODI stage is sensed to be at moderate level or just slightly higher than at pre ODI stage. Therefore, the conclusion is that the applied ODI has marginal influence on innovation in organization.

4.2.4 The extent the employee inter-functional coordination and employee synergy relate to innovation in organization

The results from analyzing observation data and semi-structure interview data led to the conclusion that at pre ODI stage level of employee inter-functional coordination, employee synergy, and innovation in organization were rather low. However at post ODI stage level of employee inter-functional coordination and employee synergy were enhanced to be at relatively high, while level of innovation in organization was enhanced to be at moderate level. This means there were positive changes in both independent and dependent variables and that the direction of change in both was positive. Although the change of independent variable was at larger level than the change of dependent variable (independent variables were employee inter-functional coordination and employee synergy; dependent variable was innovation in organization). Given that, the ODI was planned, designed, and implemented to have direct impact merely on the two independent variables. ODI in this study was not planned, designed, or implemented to have direct impact on the dependent variable. The increment of innovation in organization at post ODI, therefore, can be realized as the influence of the increment of employee inter-functional coordination and the increment of employee synergy. In addition, for the reason that direction of change on employee inter-functional coordination and employee synergy was positive, and direction of change on innovation in organization was also positive. Therefore, a conclusion can be drawn that there is a positive, but weak relationship of employee inter-functional coordination and employee synergy to innovation in organization. Table 4.10 below demonstrates the relationship between independent variable and dependent variable.

Table 4.10: Qualitative analysis on relationship of independent variable and dependent variable

Variable	Level of Variable		Change			Relationship between Variables	
	Pre-ODI	Post-ODI	Yes/No	Direction	Degree	Type	Degree
Employee inter-functional coordination & Employee synergy	Relatively low	Relatively high	Yes	Increase	High	Positive	Weak
Innovation in Organization	Relatively low	Moderate	Yes	Increase	Moderate		

4.2.5 Conclusion of findings and interpretation from qualitative data

Conclusion of findings and interpretation from qualitative approach in response to research questions are outlined below.

- There is major change of employee inter-functional coordination after ODI.
- There is major change of employee synergy after ODI.
- There is marginal change of innovation in organization after ODI.
- The change of employee inter-functional coordination and employee synergy has positive but weak effect on the change of innovation in organization.

4.3 Analysis, findings, and interpretations of quantitative data

A survey by questionnaire was selected to collect quantitative data at both pre ODI stage and post ODI stage in this study. Sequence within this section follows the list of topics below.

4.3.1 The respondents' general demographic data

4.3.2 The extent ODI has impact on employee inter-functional coordination

4.3.3 The extent ODI has impact on employee synergy

4.3.4 The extent ODI has impact on innovation in organization

4.3.5 The extent the employee inter-functional coordination and employee synergy relate to innovation in organization.

4.3.6 Conclusion of findings and interpretation from quantitative data

4.3.1 The respondents' general demographic data

Based on data collected from the fifty-one sets of completed questionnaire, forty respondents or 78% of total respondents were thirty-five years old or younger. Eleven respondents or 22% of total respondents were older than thirty-five years. Thirty respondents or 59% of total respondents were married. Twenty-one respondents or 41% of total respondents were single. Twenty-seven respondents or 53% of total respondents graduated with high school-diploma or below. Twenty respondents or 39% of total respondents hold bachelor degree. Four respondents or 8% of total respondents hold master degree and above. Eleven respondents or 22% of total respondents were employees under job function of Commercial/CI/Marketing. Five respondents or 10% of total respondents were employees under job function of Finance/Administrative/IT. Nine respondents or 18% of total respondents were employees under job function of Technical/QC/PSR. Four respondents or 8% of total respondents were employees under job function of Customer Services/Supply Chain. Twenty-two respondents or 43% of total respondents were employees under job function of Manufacturing/Delivery/Warehouse. Twenty-three respondents or 45% of total respondents were employees who have been serving BST for less than three years. Fourteen respondents or 27% of total respondents were employees who have been

serving BST between three to eight years. Fourteen respondents or 27% of total respondents were employees who have been serving BST for more than eight years. Table 4.11 demonstrates general demographics data of research respondents.

This signifies that in this study, majority of respondents were in the age group of 35 years or younger, married, holding high school-diploma or below, working in job function of manufacturing/warehouse/delivery, and working with BST for less than three years.

Table 4.11: General demographics data of research respondents

	Demographics	No. of Respondent	Percentage
Age	35 years or younger	40	78%
	Older than 35 years	11	22%
Marital Status	Married	30	59%
	Single	21	41%
	Separated/ divorced/ widow	0	0%
Education	High school-diploma or below	27	53%
	Bachelor	20	39%
	Master and above	4	8%
Job Function	Commercial/ SCI/ Marketing	11	22%
	Finance/ Admin/ IT	5	10%
	Technical/ QC/ PSR	9	18%
	Customer Services/ Supply Chain	4	8%
	Manufacturing/ Warehouse/ Delivery	22	43%
Years of work at BST	Less than 3 years	23	45%
	3-8 Years	14	27%
	More than 8 years	14	27%

4.3.2 The extent ODI has impact on employee inter-functional coordination

Research question: To what extent, if any, did the employee inter-functional coordination change after ODI?

H1o: There is no difference in employee inter-functional coordination before and after ODI. (μ pre ODI = μ post ODI)

H1a: There is a difference in employee inter-functional coordination before and after ODI. (μ pre ODI $\neq$ μ post ODI)

In response to the above research question and research hypothesis, paired t-test, two-tailed significant level was deployed for data analysis. The alpha level was set at .05.

Reasons that led to support use of paired t-test, two-tailed significant level to analyze data are 1) the hypothesis suggested testing difference of mean at pre ODI stage and mean at post ODI stage; 2) viewpoints of the same set of employees at pre ODI stage and at post ODI stage were used as comparative data 3) population under consideration has normal distribution as per result of normality test (see Appendix AG and Appendix AH); 4) the defined alternative hypothesis (H1a) is to test whether mean of pre ODI is equal to mean of post ODI (H1o: μ pre ODI = μ post ODI; H1a: μ pre ODI $\neq$ μ post ODI).

Data in table 4.12 illustrates that survey result at pre ODI related to employee inter-functional coordination received mean value at 4.86 and standard deviation value at 0.63 whereas survey result at post ODI on employee inter-functional coordination received mean value at 5.22 and standard deviation value at 0.43. Comparison of mean at

pre ODI to mean at post ODI found mean at post ODI was higher than mean at pre ODI by 0.36. Statistical analysis of the difference between mean value at pre ODI and at post ODI found calculated t test value at 4.73. With reference to t-table (see Appendix AI) at .05 significant level, two-tailed, and with degrees of freedom equal to 51-1 = 50, found a critical t-value at 1.676. Given that the calculated t value is greater than the critical t value in the table, therefore the null hypothesis (H1o: There is no difference in employee inter-functional coordination before and after ODI) is rejected and the alternative hypothesis (H1a: There is a difference in employee inter-functional coordination before and after ODI) is accepted. In this case, it means there is statistical significant difference between mean value at pre ODI and at post ODI of employee inter-functional coordination at 95% confidence interval. Reference for statistics details can be seen from Appendix AJ. In addition, statistic details of the three sub-variables under employee inter-functional coordination: shared vision and goal; clarity of roles and functions; team reward system, can be seen from Appendix AK).

Table 4.12: t-test value on pre and post ODI mean related to employee inter-functional coordination

	Sample Size	Mean	Standard Deviation	t Value
Pre ODI	51	4.86	0.63	4.73
Post ODI	51	5.22	0.43	

4.3.3 The extent ODI has impact on employee synergy

Research question: To what extent, if any, did the employee synergy change after ODI?

H2o: There is no difference on employee synergy before and after ODI.

(μ pre ODI = μ post ODI)

H2a: There is a difference on employee synergy before and after ODI.

(μ pre ODI $\neq$ μ post ODI)

In response to the above research question and research hypothesis, paired t-test, two-tailed significant level was deployed for data analysis. The alpha level was set at .05.

Reasons that led to support use of paired t-test, two-tailed significant level to analyze data are 1) the hypothesis suggested testing difference of mean at pre ODI stage and mean at post ODI stage; 2) viewpoints of the same set of employees at pre ODI stage and at post ODI stage were used as comparative data 3) population under consideration has normal distribution as per result of normality test (see Appendix AG and Appendix AH); 4) the defined alternative hypothesis (H2a) is to test whether mean of pre ODI is equal to mean of post ODI (H2o: μ pre ODI = μ post ODI; H2a: μ pre ODI $\neq$ μ post ODI).

Data in table 4.13 illustrates that survey result at pre ODI related to employee synergy received mean value at 5.02 and standard deviation value at 0.67, whereas survey result at post ODI on employee synergy received mean value at 5.26 and standard deviation value at 0.64. Comparison of mean a pre ODI to mean at post ODI found mean at post ODI higher than mean at pre ODI by 0.24. Statistical analysis of the difference

between mean value at pre ODI and at post ODI found calculated t test value at 3.485. With reference to t-table (see Appendix AI) at .05 significant level, two-tailed, and with degrees of freedom equal to 51-1 = 50, found a critical t-value at 1.676. Given that the calculated t value is greater than the critical t value in the table, therefore the null hypothesis (H2o: There is no difference in employee synergy before and after ODI) is rejected and the alternative hypothesis (H2a: There is a difference in employee synergy before and after ODI) is accepted. In this case, it means there is statistical significant difference between mean value at pre ODI and at post ODI of employee synergy at 95% confidence interval. Reference for statistics details can be seen from Appendix AJ. In addition, statistic details of the three sub-variables under employee synergy: sense of team identity; unity in diversity; collaboration, can be seen from Appendix AL.

Table 4.13: t-test value on pre and post ODI mean related to employee synergy

	Sample Size	Mean	Standard Deviation	t Value
Pre ODI	51	5.02	0.67	3.485
Post ODI	51	5.26	0.64	

4.3.4 The extent ODI has impact on innovation in organization

Research question: To what extent, if any, did the innovation in organization change after ODI?

H3o: There is no difference in innovation in organization before and after ODI.

(μ pre ODI = (μ post ODI)

H3a: There is a difference in innovation in organization before and after ODI.

(μ pre ODI $\neq$ (μ post ODI)

In response to the above research question and research hypothesis, paired t-test, two-tailed significant level was deployed for data analysis. The alpha level was set at .05.

Reasons that led to support use of paired t-test, two-tailed significant level to analyze data are 1) the hypothesis suggested testing difference of mean at pre ODI stage and mean at post ODI stage; 2) viewpoints of the same set of employees at pre ODI stage and at post ODI stage were used as comparative data 3) population under consideration has normal distribution as per result of normality test (see Appendix AG and Appendix AH); 4) the defined alternative hypothesis (H3a) is to test whether mean of pre ODI is equal to mean of post ODI (H3o: μ pre ODI = μ post ODI; H3a: μ pre ODI $\neq$ μ post ODI).

Data in table 4.14 illustrates that survey result at pre ODI related to innovation received mean value at 4.67 and standard deviation value at 0.64, whereas survey result at post ODI on innovation received mean value at 4.75 and standard deviation value at 0.63. Comparison of mean at pre ODI to mean at post ODI found mean at post ODI was higher than mean at pre ODI by 0.08. Statistical analysis of the difference between mean value at pre ODI and at post ODI found calculated t test value at 1.376. With reference to t-table (see Appendix AI) at .05 significant level, two-tailed, and with degrees of freedom equal to 51-1 = 50, found a critical t-value at 1.676. Given that the calculated t value is

lower than the critical t value in the table, therefore the null hypothesis (H3o: There is no difference in innovation in organization before and after ODI) is accepted and the alternative hypothesis (H3a: There is a difference in innovation in organization before and after ODI) is rejected. In this case, although it means the mean value of post ODI is higher than mean value of pre ODI, there is no statistical significant difference between mean value at pre ODI and at post ODI of innovation at 95% confidence interval. Reference for statistics details can be seen on Appendix AJ. In addition, statistic details of the three sub-variables under innovation: creativity; strategic perspective; implementation, can be seen on Appendix AM.

Table 4.14: t-test value on pre and post ODI mean related to innovation in organization

	Sample Size	Mean	Standard Deviation	t Value
Pre ODI	51	4.67	0.67	1.376
Post ODI	51	4.75	0.63	

4.3.5 The extent the employee inter-functional coordination and employee synergy relate to innovation in organization

Research question: To what extent, if any, did the change of employee inter-functional coordination and employee synergy relate to the change of innovation in organization?

H4o: There is no relationship between employee inter-functional coordination and employee synergy to innovation in organization. (r = 0)

H4a: There is a relationship between employee inter-function coordination and employee synergy to innovation in organization. ($r \neq 0$)

The objective of this session is to test for a linear relationship between two independent variables: employee inter-functional coordination and employee synergy and a dependent variable: innovation in organization. Analyzed data revealed the change of employee inter-functional coordination after ODI, the change of employee synergy after ODI, and the change of innovation in organization after ODI. Regression is deployed for data analysis. Given that the alternative hypothesis is to propose a significant non zero correlation, a two-tailed significance test was deployed. The significant level was set at 95% confidence interval. Under regression analysis, when the Adjusted R Square value is +1, it means a perfect positive (increasing) linear relationship; when the Adjusted R Square value is −1, it means a perfect decreasing (negative) linear relationship; and when the Adjusted R Square value arrived at between −1 and 1, it indicates the degree of linear dependence between the variables. As the Adjusted R Square approaches zero, it means there is less of a relationship. The closer the Adjusted R Square is to either −1 or 1, it means the stronger the relationship between variables. In general, any obtained Adjusted R Square value can be interpreted as per below:

.70 or higher indicates very strong association

.50 - .69 indicates substantial association

.30 - .49 indicates moderate association

.10 - .29 indicates low association

.01 - .09 indicates negligible association.

Result from regression analysis referring to Table 4.15 indicates that the two independent variables: employee inter-functional coordination and employee synergy could explain fluctuation of a dependent variable: innovation in organization at 0.157 (the Adjusted R Square value) with statistically significant level 0.006. This means, there is a significant positive correlation between employee inter-functional coordination and employee synergy to innovation in organization, although the impact of employee inter-functional coordination and employee synergy on innovation in organization is at low level.

Table 4.15: Regression analysis on relationship of independent variable and dependent variable

Variable		Sample Size	Adjusted R Square Value	Significant Value
Independent	Dependent			
Employee inter-functional coordination	Innovation in organization	51	0.157	0.006
Employee synergy		51		

Further analysis on the joint effects of employee inter-functional coordination and employee synergy to innovation in organization, regression analysis also indicates the separate effect of employee inter-functional coordination to innovation in organization and employee synergy to innovation in organization. Table 4.16 illustrates standardized coefficients value (Beta) and significant value of relationship between employee inter-functional coordination and innovation in organization at .253 and 0.09 respectively,

standardized coefficients value (Beta) and significant value of relationship between employee synergy and innovation in organization at .259 and 0.82 respectively. The Beta value of employee inter-functional coordination and employee synergy are .253 and .259 respectively would mean positive association between employee inter-functional coordination and innovation in organization, and there is positive association between employee synergy and innovation in organization, although the association of both were at low level. Given that significant level of both employee inter-functional coordination and employee synergy were below the significant level of 0.05, it means there is no statistical significance on relationship of employee inter-functional coordination and innovation in organization, and there is no statistical significance on relationship of employee synergy and innovation in organization.

Table 4.16: Regression analysis on relationship of each independent variable to the dependent variable

Variable		Sample Size	Standardized Coefficients	Significant Value
Independent	Dependent		Beta	
Employee inter-functional coordination	Innovation in organization	51	0.253	0.09
Employee synergy	Innovation in organization	51	0.259	0.082

Overall result from regression analysis indicates that neither employee inter-functional coordination nor employee synergy alone can explain the change of innovation in organization. However, from the joint effects of employee inter-functional

coordination and employee synergy, there is a low positive relationship between employee inter-functional coordination and employee synergy and innovation in organization at confidential level 95% (see appendix AN for full statistic details). Therefore null hypothesis (H4o: There is no relationship between employee inter-functional coordination and employee synergy to innovation in organization) is rejected, and the alternative hypothesis (H4a: There is a relationship between employee inter-function coordination and employee synergy to innovation in organization) is accepted. This indicates a predictive relationship that the innovation in organization as the dependent variable will move in the same direction with the two independent variables: employee inter-functional coordination and employee synergy, although the degree of influence from independent variables to dependent variable is at low level.

4.3.6 Conclusion of findings and interpretation from quantitative data

Findings and interpretations from quantitative approach are concluded as follows:

Findings:

- There is increment on mean value of employee inter-functional coordination after ODI and the increment of mean value has statistical significance at 95% confidence interval.
- There is increment on mean value of employee synergy after ODI and the increment of mean value has statistical significance at 95% confidence interval.

- There is increment on mean value of innovation in organization after ODI however, the increment of mean value failed statistical significant at 95% confidence interval.
- There is a significant positive correlation between employee inter-functional coordination and employee synergy to innovation in organization, although the impact is at low level.

Interpretation:

- There is significant improvement of employee inter-functional coordination after ODI.
- There is significant improvement of employee synergy after ODI.
- There is positive change of innovation in organization after ODI, although the confident level is lower than 95%.
- The change of employee inter-functional coordination and employee synergy is positive but weak in relation to the change of innovation in organization.

4.4 Final findings (Findings and interpretation drawn from combination of qualitative findings and quantitative findings)

Findings from qualitative data were in good agreement with findings from quantitative data. Findings from both methods suggested improvement on employee inter-functional coordination, employee synergy, innovation in organization after ODI, although the improvement of innovation in organization per qualitative method was found only marginal, and reveal statistical failure at 95% confidence level according to

quantitative method. In addition, findings from both methods demonstrated that there was positive but weak relationship between joint effects of employee inter-functional coordination and employee synergy to innovation in organization. The final findings, therefore, infer that:

- There is significant improvement of employee inter-functional coordination after ODI.
- There is significant improvement of employee synergy after ODI.
- There is directional improvement, not significant, of innovation in organization after ODI.
- The change of employee inter-functional coordination and employee synergy is positive but in weak association with the change of innovation in organization.

With regard to the directional improvement in organization's innovation after ODI, this can be explained by two insights. 1) The improvement of innovation in organization was not from direct effects of ODI. On the contrary, improvement of innovation in organization was an indirect effect of ODI through the improvement of employee inter-functional coordination and employee synergy, hence the influence was not as strong as having direct effect. Result from regression analysis also concluded a positive but weak relationship between employee inter-functional coordination, employee synergy and innovation in organization. By comparing mean score at pre ODI and at post ODI of sub-variables within innovation in organization. Table 4.17 below illustrates that based on survey from among the 51 respondents, mean score of creativity at pre ODI was 4.59, mean score of creativity at post ODI was 4.72; mean score of strategic perspective

at pre ODI was 5.10, mean score of strategic perspective at post ODI was 5.10; mean score of implementation at pre ODI was 4.41, mean score of implementation at post ODI was 4.50. Difference of mean at pre ODI and post ODI of creativity, strategic perspective, and implementation was 0.13, 0.02, and 0.09 respectively. This data indicated that although there was relatively high increment on mean score of creativity, there was almost no increment on mean score of strategic perspective, and there was only marginal increment on mean score of implementation.

Table 4.17: Means score of Sub-Variables of innovation in organization

Sub-Variables of Innovation in Organizaiton	Number of Respondent	Mean Score		Difference of Mean at Pre and Post ODI
		Pre ODI	Post ODI	
Creativity	51	4.59	4.72	0.13
Strategic Perspective	51	5.1	5.12	0.02
Implementation	51	4.41	4.5	0.09

Qualitative data also support this explanation, as the researcher observed that there were many new ideas proposed by employees during meetings both official and casual, however employees did not discuss much the cost against benefit of those proposed ideas, and in general, they continued to work in a routine way. In addition, evidence from semi-structured interview clearly helps explain that reason for low strategic perspective was that employees were not serious enough in taking new ideas into practice. In addition, reasons for low implementation were due to employees having limited time; employees worrying about possible risk; it was not a job requirement on the employees putting new ideas into practice; and employees had low intention in applying

new ideas. Based on both quantitative data and qualitative data, employee inter-functional coordination and employee synergy have moderate effect on creativity, but have weak effect on strategic perspective and implementation. 2) The majority of researchers suggest that market orientation has positive relationship to organizational innovation (Bear & Vickers, 2006; Dobni, 2008; Grinstein, 2008; Han et al., 1998; Houston, 1986; Hult et al., 2004; Narver et al., 2004). Market orientation is comprised of three elements: orientation towards the customer, orientation towards competitors, and orientation towards inter-functional coordination (Webster, 2003). However, ODI in this study focus only on one of the three elements of market orientation, therefore there were only directional improvement, not significant, on innovation change after ODI.

4.5 Conclusion

Analyzing and comparing data being gathered at pre ODI to data being gathered at post ODI, the results indicate that there is a significant improvement in employee inter-functional coordination after ODI, there is significant improvement in employee synergy after ODI, there is a directional improvement in innovation after ODI, and there is a weak positive relationship between employee inter-functional coordination and employee synergy and innovation in organization. This imply that the designed ODI and its implementation were efficient as it provided positive effects on employee inter-functional coordination, and employee synergy, which have extended impact on level of innovation in BST, although only marginally. Accordingly, aspiration of this study, which is related to its problem statement, is fulfilled.

Chapter Five

Summary, Conclusions, Recommendations, and Epilogue

This chapter covers research summary, conclusions, recommendations, and epilogue. Research summary consists of summary of research intention, summary of research process, summary of research findings. The conclusion part is the recapitulation of findings, together with its academics implications and practical implications. Recommendations are made based on conclusions in the Action Research format. The part of epilogue illustrates the acquired learning of the researcher from the research and the Ph.D.OD process as a whole.

5.1 Summary

This section sums up the research intentions, research process, and research findings. It also illustrates how the statement of the problem has been addressed, how the research objectives have been achieved, how the research questions have been answered, and how the hypotheses have been tested.

5.1.1 Summary of Research Intentions

This action research is a case study of BST Co., Ltd. which is a subsidiary type organization with adopted functional organizational structure that has no governance by a single authority. BST operates in a dynamic, competitive external environment, yet able to survive rivalry in the marketplace if the organization is stronger than its competitors. Recent and current top-line performance of the organization is at market competitive

level, nevertheless affected by the industry's high competition, profit margin of BST shows an eroding trend. BST hold several areas of critical strengths: a positive, well perceived company image; having valid business strategy to grow sales; a healthy financial position; having strong support from the mother company; holding a long-time, strong and deep personal relationship with key customers; its people are competent, compliant to company policy and very competitive, yet its main weakness is related to inter-functional coordination and innovation. In order to promote teamwork, synergy is included in this study as the employee attitude/spiritual aspect of team. The problem statement of this study is therefore positioned as: To determine the impact of an organizational development intervention on the improvement of employee inter-functional coordination and employee synergy in order to foster innovation in BST.

Subsequent to the problem statement, this action research was conducted having in mind five objectives:

1. To describe the current situation of BST.
2. To determine the levels of employee inter-functional coordination, employee synergy, and innovation in BST at the starting point of the research and at the finishing point of the research.
3. To design, develop, implement organizational development intervention (ODI) to enhance employee inter-functional coordination and employee synergy in order to foster innovation in BST.
4. To determine the impact of ODI on employee inter-functional coordination, employee synergy, and innovation in organization.

5. To determine the relationship between the joint effects of employee inter-functional coordination and employee synergy to innovation in organization.

The study aimed to answer four research questions:

1. To what extent, if any, did the employee inter-functional coordination change after ODI?
2. To what extent, if any, did the employee synergy change after ODI?
3. To what extent, if any, did the innovation in organization change after ODI?
4. To what extent, if any, did the change of employee inter-functional coordination and employee synergy relate to the change of innovation in organization?

The study also aimed to test four hypotheses:

H1o: There is no difference in employee inter-functional coordination before and after ODI.

H1a: There is a difference in employee inter-functional coordination before and after ODI.

H2o: There is no difference in employee synergy before and after ODI.

H2a: There is a difference in employee synergy before and after ODI.

H3o: There is no difference in innovation in organization before and after ODI.

H3a: There is a difference in innovation in organization before and after ODI.

H4o: There is no relationship between employee inter-functional coordination and employee synergy to innovation in organization.

H4a: There is a relationship between employee inter-functional coordination and employee synergy to innovation in organization.

5.1.2 Summary of Research Process

In order to respond to the request of the aforesaid problem statement, research objectives, research questions, and research hypothesis, the researcher explored the general context of organization environment, the context of flavor and fragrance industry, the context of BST including its performance and SWOT. The first research objective: to describe the current situation of BST, was completely covered in the study and is therefore, achieved. Then the research reviewed seven areas of literature: organization development and change; the Action Research model; market orientation; inter-functional coordination; synergy; innovation in organization, to conceptualize a framework of research. Research framework of this study consisted of two independent variables: employee inter-functional coordination and employee synergy, and a dependent variable which is innovation in organization. It is imperative to mark that in this study, the concept of inter-functional coordination is explained by Cross-functional team (CFT) while synergy is explained as "2+2=5", or the whole is greater than the sum of individual parts. And that innovation in this study accepts Efficiency Innovation (new ideas for improving what already exists. New ideas and implementation generated for minor changes). Under each variable, there are three sub-variables. The three sub-variables of employee inter-functional coordination are: shared vision and goal; clarity of

roles and functions; team reward system. The three sub-variables of employee synergy are: sense of team identity; unity in diversity; collaboration. Three sub-variables of innovation in organization are: creativity; strategic perspective; implementation. The research framework illustrates the aspiration corresponding to statement of the problem which is to determine the impact of an organizational development intervention on the improvement of employee inter-functional coordination and employee synergy in order to foster innovation in BST.

Action Research was adopted as an approach for change process. Action Research approach is appropriate for both content of this study and context of BST for the reason that content of the study is related to teamwork and the main context of BST is its functional organization structure that is not governed by a single authority, leaving employees focusing on performance of one own division rather than performance of the whole organization, while principle of Action Research promotes learning-by doing via collaboration between researcher and client, in this case the employees of BST, especially its functional heads, in order to tap into BST employees' ideas and productive capacities, and at the same time, to minimize their resistance to change resistances. The whole process of study was divided into three connecting stages: pre ODI stage, ODI stage, and post ODI stage. Organizational assessment and intervention development plan were conducted in pre ODI stage. ODI focusing on improvement of employee inter-functional coordination and employee synergy was implemented in ODI stage. Interventions evaluation was conducted in post ODI stage. Questionnaire survey, observation, and semi-structure interview related to employee inter-functional coordination, employee synergy, and innovation in organization at pre ODI stage and at post ODI stage were

conducted and analyzed. From here, the second research objective: to determine the levels of employee inter-functional coordination, employee synergy, and innovation in BST at the starting point of the research and at the finishing point of the research, was achieved. In regard to the third research objective: to design, develop, implement ODI to enhance employee inter-functional coordination and employee synergy in order to foster innovation in BST, it was achieved primarily by collaboration efforts of the researcher and the Change Team members of BST.

5.1.3 Summary of Findings

Findings from both quantitative method and qualitative method were in good alignment and generated positive response to research hypothesizes, research questions, as well as the fourth and the fifth research objective. Under this consequence, related research questions were answered as:

- There is significant improvement of employee inter-functional coordination after ODI.
- There is significant improvement of employee synergy after ODI.
- There is positive change of innovation in organization after ODI.
- The change of employee inter-functional coordination and employee synergy is positive, but weak relating to the change of innovation in organization.

Table 5.1 below illustrates findings from qualitative method, quantitative method, and the overall findings related to research questions and research hypothesis.

Table 5.1: Summary of study findings

Research Method	Findings	Response to Research Hypothesis	Answer to Research Questions
Qualitative	Clear increment after ODI	-	There is significant improvement of employee inter-functional coordination after ODI.
Quantitative	Significant change at 95% confident level	Reject H1o, accept H1a	
Overall Findings	Employee inter-functional coordination improved significantly after ODI.	-	
Qualitative	Clear increment after ODI	-	There is significant improvement of employee synergy after ODI.
Quantitative	Significant change at 95% confident level	Reject H2o, accept H2a	
Overall Findings	Employee synergy improved significantly after ODI.	-	
Qualitative	Marginal increment after ODI	-	There is marginally positive change of innovation in organization after ODI.
Quantitative	Directional change	Accept H3o, reject H3a	
Overall Findings	Innovation in organization increased marginally after ODI.	-	
Qualitative	Positive but weak relationship between independent and dependent variables	-	The change of employee inter-functional coordination and employee synergy is positive, but weak related to the change of innovation in organization.
Quantitative	Positive but weak relationship at 95% confident level	Reject H4o, accept H4a	
Overall Findings	Positive but weak relationship between independent and dependent variables	-	

In summary, findings of this study correspond to results of organizational assessment at pre ODI stage which stated that there were relatively low level of employee inter-functional coordination, employee synergy, and innovation during pre ODI. The findings also answer the center purpose of this study which is to enhance BST employee inter-functional coordination and employee synergy for the higher level of innovation in BST.

5.2 Conclusions

Market orientation, which according to Webster (2003), consists of three elements: customer orientation, competitor orientation, inter-functional coordination, is widely cited as antecedent of innovation (Bear & Vickers, 2006; Dobni, 2008; Grinstein, 2008; Han et al., 1998; Hult et al., 2004; Narver et al., 2004). Findings of this study confirm that successfully enhancing the employee inter-functional coordination which included its spiritual part – employee synergy, in an organization that already own the other two elements of Market Orientation: customer orientation, competitor orientation, can lead to marginal improvement of organizational innovation. Furthermore, findings of this study also offer new insights into existing market orientation literature and innovation literature. Whereas existing literature generally examine association between market orientation and innovation in organization (consider the joint effects of three elements of market orientation to innovation in organization), this study offer an insight on a direct association of the third element - inter-functional coordination, within market orientation to innovation in organization. It recommends that there are marginal benefits for practitioners to employ employee inter-functional coordination and employee synergy in order to enhance innovation in organization.

Based on the finding that OD interventions, focused on the three sub-variables of employee inter-functional coordination: shared vision and goal; clarity of roles and functions; team reward system, had significant and positive effects on employee inter-functional coordination. This part of findings confirm that employee inter-functional coordination can be amplified by shared vision and goal (Andrews, 2000; Chaudron, 1995; Juga, 1996; Proehl, 1996; Weintraub, 1995), by clarity of roles and functions

(Chaudron,1995; Convey, 1994; Juga, 1996; Parker, 1994; Proehl, 1996), and by team reward system (Chaudron, 1995. Convey, 1994; Proehl, 1996). Therefore, in order to promote cross functional teamwork, practitioners are recommended to ensure existence of a reason or purpose for working together, team members' clear roles and areas of responsibility, and a team reward which aligns with personal wants and needs of team members, so for team members to be able to work collectively.

The success of OD interventions in this study which significantly improve level of employee synergy is based on its focus on three sub-variables: team identity, unity in diversity, collaboration. This part of findings confirmed that team synergy is supported by team identity (Gundlach et al. 2006; Schein, 1992; Turner, 1985; Turner et al. 1987), unity in diversity (Hodgkinson & Healey, 2008), and collaboration (Hargrove, 1998). In addition to the task or functional part of team, practitioners are also recommended to address the spiritual part of team by promoting team identity, unity in diversity, and collaboration to arrive at a successful teamwork.

As reflected from this study, BST was forced to change by both external factor and internal factor: the complex dynamic environment and the requirement to commit to mission. Instead of having BST change naturally, this study has shown that a planned ODI have an impact on the organizational culture. The ODI focused at only one component of organization which is employee cross-functional teamwork (covering both functional aspect: employee inter-functional coordination and spiritual aspect: employee synergy), and allow a system to take care of the effect to foster innovation in BST. This case study about BST confirms the theories in literature review that organization is an open system, and is forced to change naturally by both external factors and internal

factors. However, organizational change for its development can also be expedited by a change plan or a planned intervention (Cummings & Worley, 2005). Through a Systematic thinking, interventions focus at certain component of organization can escalate change effects on the organization as a whole because all components of organization are interconnected (Dundon, 2002). Practitioners should consider to implementing change plan for organizational development. In doing so, practitioners need to be careful in determining what, where, when, and how to implement a change plan for its positive impact to organization. A planned ODI should be suitable with study content and fit to the context of organization, which is sensitive to organization climate, and environment. This means the planned ODI need to be flexible in itself.

One of the key success factors of this study is due to an adoption of Action Research model as change process. Action Research model allow participation of employees, especially members of the Change Team, in designing and implementing change plan. This is supporting the theory that a critical success of a change plan is related to resistance of organizational employees (Cummings & Worley, 2005). However, employee resistance to change can be minimized by putting employees on team (Kanter, 1995). A team can be a powerful agent of change in organization (Convey, 1994). Therefore, management is advised to involve employees in any change plan because not only do employees usually have valuable insight about strength and weakness of organization, but also because this technique minimize change resistance from employees.

In conclusion, this study has positive implication to academic field as well as practical field. On theoretical importance, the integration of study's content, context,

and process make this study original. Findings of this research validate and contribute to existing theories in the related fields. On practical implication, this study helped BST to be able to comply with its mission. It served as a driving force for employees of BST to facilitate the company to perform better. It demonstrated to employees of BST and brought realization the power of "connectivity" to better achieve any purpose in life. In addition, this study also has potential to generalize its findings to other organizations having similar context to BST. The context of BST described in this study is considered sufficient for anyone, seeking to make dissemination, to make similar judgments if possible.

5.3 Recommendations

Based on findings and conclusions of this research, there are some inferences to be drawn as useful guidelines for further study.

This study only collected information from a single organization. Further study can extend the research to other organizations of which their environmental interferences were not considered in this study, such as different industry, different culture, different organizational structure, etc. If additional organizational contexts were considered for further research, the study would be more conscientious, more conclusive, and more complete.

This study explored one element of market orientation: employee inter-functional coordination, in relation to innovation in organization. Additional research may examine relationship between the other two elements of market orientation: customer orientation and competitor orientation and innovation in organization.

This study found only marginal increment in its dependent variable: innovation in organization. Findings from both qualitative and quantitative approaches illustrated that among the three sub-variables of innovation in organization, strategic perspective and implementation were the two areas where change was minimal. Insights from qualitative data suggested that limited time, possible risk, not the requirement of job, and low intention could be reasons, which mediated implementation of new ideas, while degree of intention to apply new ideas into practice could moderate strategic perspective. Therefore, another recommendation from this study is for further research to take factors such as time, risk, job requirement, level of intention in applying new ideas into practice, into consideration when designing ODI on employee inter-functional coordination and employee synergy to foster innovation in organization.

5.4 Epilogue

This Action Research together with the six Ph.D.OD class courses allowed me to draw both conceptual and experiential learning in the field of organization development. More important, it facilitates development of my deep self. I have gained insight about Action Research concept, organizational concept, organizational development and change concept, leadership concept. I have developed better people skill, leadership skill, communication skill, organizational diagnosing skill, ODI skill, skill in conducting Action Research. Very importantly, I have developed new perspectives. Learning from this Ph.D.OD program has broadened my viewpoint. It has opened up my eyes and my mind to see new things I have never seen before, and to see existing things from new angle. I started to see organization different from my previous perception, and I realize a

different approach in developing organization. Although it is an obvious fact that organization consists of people, I have never seen it in such way, and have never consciously thought of developing organization through its people. This Ph.D.OD program help me realized that an organization is consisted of human social system that can be developed by a change plan, especially a change plan which involve organizational people in order to gain their commitment and willingness to change, during change, and for the success of change. An important key success factor of ODI in the research in this dissertation is due to the involvement of many employees who are leaders or influential figures of the organization. Without their collaboration, I will not be able to overcome change resistance of employees in BST. In addition, the challenging and exciting learning process in this Ph.D.OD program helps me develop insight about non-linear process, different worldviews of people, and freedom in humanity. There were many loops of efforts to get through each step of progress in conducting the research project as well as in composing this dissertation. Although I think I have planned the intervention carefully, I can never have absolute control of the change process. I can never be 100% sure of the outcome because people have different viewpoints. From the same data or event, different persons give different meanings to it, and react differently. In addition, people's viewpoints are unstable. Sometimes, people change their perspectives according to circumstances. This makes me realize that I can never treat people as an object, but must always respect them and treat them as individual subject. I need to pay high attention to the different viewpoints of people, as it is an important variable for the success of organization development because each person's viewpoint is part of the whole meaning, and a superior insight of the meaning can be

realized when we integrate different viewpoints together. By seeing people as subject, I realize that being human being, we always have certain level of freedom in deciding our response to events. From this Ph.D.OD program, I feel that I can see one of the very important invisible things, which is "change". I have never consciously thought of change and its wide impact until I took on this program. Now, I realize the existence of change, a preaching of the Lord Buddha about "everything is impermanent", and the incredible effect change has been doing to this world.

When I boost up these new insights and perspectives, learned from this Ph.D.OD program, to a broader level, I see this world differently from my previous perception and realize a new possibility in changing the world. Now, I can see that each of the small elements, moments, and movements in this world is different, self completed/having meaningful in itself, and is inter-connected to form a holistic meaning of this world. However, this world can be arrived at an even greater meaning that is much more meaningful than just a combination of these small elements, moments, and movements together. The way to achieve an even greater meaning of this world is through synergy of these factors. Same as while I am writing this dissertation, I realized that each word has meaning in itself, but a more meaningful message emerged from linking many words together, and the even higher sense can be achieved by recomposing these many words. Now I see myself as part of a larger universe and understand that human being is the most powerful element pushing change to this world. As in developing organization, changing one element or changing the way elements are related, can generate to the change of whole organization. In addition, same as in writing this dissertation, change of wording or changing the way wordings are related, can lead to change of meaning and

value of the whole dissertation. We, human being, can do so in changing this world. Although we don't have total control over events and things, we always have some level of influence to better achieve our purpose. We can connect people toward a shared vision in altering this world to be a happy home for all kinds of living via a better balancing ecology system. In addition, I have realized that human social system change process is organic and should be started from the area we have some level of control. This Ph.D.OD program suggested to me the four thinking perspectives and allow me to practice by rethinking how I think in order to consider information from all four thinking lens to serve the best result out of life's purpose/opportunities. Therefore, I am to start change process from myself by starting from my thinking perspective, which is the area where I have some level of control. My personal change will affect and influence people in my surroundings to change. The process is to expand and continue to group level, to organization level, to large-scale social level, like the "Butterfly Effect" where small change in the initial condition of the system, causes a chain of events leading to large-scale phenomena. It allows me to see the chain reaction/the domino effect that changes in this world is right within our reach and access to us – the human being.

I would like to conclude that this Ph.D.OD program provided me much more than just learning the theoretical concepts and skills in practice relating to organizational development, I gained deeper insight about myself and I found this Ph.D.OD program, has powerful influence to vibrate my deep value that I choose to enjoy the world as it is while continue living in self-development process and working in connection with other people to improve this world to be a happier living place for all kinds of lives.

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"It is our choices that show what we truly are, far more than our abilities."

- J. K. Rowling

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Appendix A

Observation Guidelines

Shared vision and goal: Are employees from different functions working toward the same goal? Do employees have any distracting mannerisms?

Roles and functions: Are employees performing as per their expected roles and functions? Do they wait for cues from their manager to do their task or do they do so independently?

Team reward system: Are employees from different job functions demonstrate working together in order to achieve a common reward? Is reward based on cross-functional team performance?

Sense of team identity: How do employees treat their colleagues? Are employees demonstrating that they are proud of working for BST?

Unity in diversity: Are employees show respect and trust their colleague from different functions? Can employees, especially those from minority group communicate their concerns and opinions? How other employees react to concerns and opinions of this group of employees? Can employees reach agreement in an amicable manner when they shared different views?

Collaboration: What do employees do when they encounter a problem/situation needing input from other functions for better decision? Are employees from different functions exchange information, consult, work, making decision together? Do other employees

from different functions helping each other in any way? How do employees ask for and accept assistance from peers?

Creativity: Do employees present or introduce new ideas related to company performance or they follow their routine practice? How often?

Strategic perspective: Are most selected new ideas adding value to the company than their cost?

Implementation: Is the pace of putting new ideas into practice fast, slow, medium?

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Appendix B

The Interview Guideline

1. Shared vision and goals

- How do you feel about our organizational vision?
- Do you think that people from different job functions in this organization work toward a common goal?
- Why do you think so?

2. Clarity of roles and functions

- How clearly do you think people in this organization understand responsibilities and authorities of themselves and of their colleague in other divisions?
- What made you answer the way you do?

3. Team reward system

- What is your opinion on employee performance measurement and rewards systems of this organization in relation to teamwork of employees across job functions?

4. Sense of team identity

- In your point of view, how deep, how wide, how high, people in this organization engage with the organization?
- How is the emotional alignment of employees with each other?
- Why do you think as such?

5. Unity in diversity

- Please share with me your perception toward relationship of people in this organization who are different from each other.
- Why do you say so?

6. Collaboration

- Please describe to me how people from different job functions in this organization works together.
- When people in this company hear that their colleague is facing a problem and need help, how do they usually respond?
- What made you describe as such?

7. Creativity

- From your perspectives, how creative people in this organization are?
- Please explain more.

8. Strategic Perspective

- In your viewpoint, what are the common criteria being use in determining business decision of this company?
- In your viewpoint, how strategic we are in term of business?
- Why do you say so?

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9. Implementation

- Please tell me about how easy or difficult, fast or slow, many or few, people in this organization put new ideas into practice.
- How do people in this organization react to new way of working?
- Could you give me an example to support your answer?

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Appendix C

The Questionnaire

Instructions

This questionnaire is designed to collect data on viewpoint of respondents about employee inter-functional coordination, employee synergy, and innovation in our organization. The result will be used to help the Change Team of our company identify organization development interventions for improving the level of employee coordination and employee synergy across different job functions, and level of innovation within our organization.

The questionnaire is divided into two parts. Part I, is about respondents' general information. In part II, you will be asked to indicate level of your agreement or disagreement to the given question statements relate to employee inter-functional coordination, employee synergy, and innovation in our organization.

Data collected from this questionnaire will be analyzed in integrated approach, not individual approach. Please kindly express your viewpoint in a fully and truly manner. We thank you for your continue efforts to make BST successful.

Thank you,

Part I:	General Profile of Respondent

Instructions: Kindly mark √ in □ relevant to fact.

1. Age

□35 years or younger

□Older than 35 years

2. Marital Status

□Married

□Single

□Separated/divorced/widow

3. Education

□High school-diploma or below

□Bachelor

□Master and above

4. Job function

□Commercial/ SCI/ Marketing

□ Finance/ Admin/ IT

□Technical/ QC/ PSR

□Customer Services/ Supply Chain

□ Manufacturing/ Warehouse/ Delivery

5. Years of work at BSG Thailand

□Less than 3 years

□3-8 Years

□More than 8 years

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Part II:

Instructions: For each of the statements, please mark √ in □ for the level match with your judgment.

1 = Definitely disagree 2 = Disagree 3 = Inclined to disagree 4 = Not certain
5 = Inclined to agree 6 = Agree 7 = Definitely agree

A. Employee inter-functional coordination

Question Statement	Definitely disagree						Definitely agree
	1	2	3	4	5	6	7
Shared vision and goals							
1) I think that people in BST know and well understand vision and goal of BST.							
2) I think that people in BST in general are doing their best to support BST in achieving its goal.							
3) I feel that people in BST in general are interested about the progress of organizational goal.							
Clarity of roles and functions							
4) I think that people in BST are clear who has the formal authority to make a decision in their division.							
5) I think that people in BST somewhat don't understand the roles of other divisions, which division has what authority, what functions.							
6) I think that people in BST are clear on the required work process and coordination between their division and other divisions.							
Team reward system							
7) I think that the performance evaluation system of BST encourage employee competition rather than cooperation.							
8) No matter how good or bad BST employee' personal work performance is, if the overall performance of BST came out poorly, it will have negative effects on employee' compensation.							
9) I don't think that giving support to colleagues will have much positive effects on salary and allowances of people in BST.							
10) Overall, I think that the compensation system in BST supports employees coordination.							

B. Employee synergy

Question Statement	Definitely disagree						Definitely agree
	1	2	3	4	5	6	7
Sense of team identity							
11) I see that people in BST don't pay much interest whether the company is successful or not, unless it affects their personal income and allowances.							
12) People in BST have a sense of pride working for BST.							
13) When ever BST become successful, people in BST usually express as if they are also successful.							
14) I feel that BST is a part of its employees' life.							
Unity in diversity							
15) People in BST try to avoid working with people who have different viewpoints from them.							
16) People in BST usually associate only with colleagues who have many things in common to them.							
17) People in BST who frequently express opinions which are different from that of their colleagues', are often not quite accepted by their colleagues.							
18) People in BST prefer a working system which allows diverse opinions.							
19) Whenever some colleagues display different perspectives from people in BST, people in BST will not clearly show their disagreement with their colleagues but will quietly oppose, for example, by non-compliance.							
Collaboration							
20) For colleagues within same division, people in BST are happy to give full support, but rarely provide support to people in other divisions.							
21) People in BST often encounter communication breakdown in working with colleagues in other divisions.							
22) People in BST often complain their co-workers who frequently seek never ending assistance.							
23) I feel that people in BST whether they are in the same division or from other divisions are very spontaneous and willing to collaborate with each other in the company, like being in the same family.							

C. Innovation in Organization

Question Statement	Definitely disagree						Definitely agree
	1	2	3	4	5	6	7
Creativity							
24) I feel that people in BST usually come up with work related new ideas and often share these with colleagues.							
25) People in BST seldom have comments how to make improvement on neither their work nor the work of their colleague.							
26) I feel that people in BST hardly strive for new work approach.							
Strategic Perspective							
27) I feel that people in BST often execute new ideas and new work approach without properly considering the potential benefits against potential risks.							
28) Even though people in BST can come up with a new work approach, they often hesitate to propose it to the company unless they have well determined its impact to ensure that it will do more good than harm to the company.							
29) I feel that during discussions about new work related ideas and there are more than one ideas available, people in BST constantly weigh cost and benefit to select the best idea.							
Implementation							
30) In BST there are frequent discussions about new work approaches, however the execution of these new ideas is very rarely to seen.							
31) I don't think that the company seriously pushes to put new ideas into real practice.							
32) Whenever people in BST hear about new changes related to work, they often keen to learn and try.							
33) I feel that people in BST favor the familiar work approaches more than trying out new ones.							

แบบสอบถาม

คำแนะนำ

แบบสอบถามนี้ถูกออกแบบมาเพื่อเก็บรวบรวมข้อมูลเกี่ยวกับมุมมองของผู้ตอบแบบสอบถามในเรื่องของการประสานงานของพนักงานต่างแผนก ความเป็นน้ำหนึ่งใจเดียวกันของพนักงาน และวัฒกรรม ใน BST ผลของการวิจัยในครั้งนี้จะถูกนำไปใช้เพื่อชี้หาวิธีการปรับปรุงเรื่องความร่วมมือกันของพนักงานระหว่างแผนก ความเป็นน้ำหนึ่งใจเดียวกันของพนักงาน และวัฒกรรม ใน BST ต่อไป

แบบสอบถามแบ่งออกเป็น 2 ส่วน ได้แก่ ส่วนที่ 1ข้อมูลทั่วไปของผู้ตอบแบบสอบถาม ส่วนที่ 2 คุณจะถูกขอให้ระบุระดับความเห็นด้วยหรือไม่เห็นด้วยกับข้อความต่างๆที่เกี่ยวข้องกับการประสานงานของพนักงานต่างแผนก ความเป็นน้ำหนึ่งใจเดียวกันของพนักงาน และนวัฒกรรมในองค์กรของเรา

อนึ่งข้อมูลที่ได้รับจากแบบสอบถามนี้จะถูกนำไปวิเคราะห์โดยภาพรวม ไม่เจาะจงเป็นรายบุคคล ดังนั้นจึงขอให้พนักงานทุกท่านแสดงความคิดเห็นอย่างครบถ้วน ตามความเป็นจริง เราขอขอบคุณสำหรับความพยายามของคุณที่จะทำให้บริษัท BST ประสบความสำเร็จเสมอมา

ขอบคุณค่ะ

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ส่วนที่ 1	ข้อมูลทั่วไปของผู้ตอบแบบสอบถาม

คำชี้แจง: กรุณาทำเครื่องหมาย ✓ ใน [ ] ที่ตรงกับตัวคุณ

1. **อายุ**
   - [ ] 35 ปี หรือน้อยกว่า
   - [ ] มากกว่า 35 ปี
2. **สถานภาพสมรส**
   - [ ] แต่งงานแล้ว
   - [ ] โสด
   - [ ] แยกกันอยู่/หย่าร้าง/หม้าย
3. **การศึกษา**
   - [ ] มัธยมศึกษาตอนปลาย/ อนุปริญญา หรือต่ำกว่า
   - [ ] ปริญญาตรี
   - [ ] ปริญญาโทหรือสูงกว่า
4. **หน่วยงาน**
   - [ ] Commercial / CI/ Marketing
   - [ ] Finance/ Admin/ IT
   - [ ] Technical/ QC/ QSR
   - [ ] Customer service/ Supply chain
   - [ ] Manufacturing/ Delivery/ Warehouse/ Driver
5. **จำนวนปีในการทำงาน**
   - [ ] น้อยกว่า 3 ปี
   - [ ] 3-8 ปี
   - [ ] มากกว่า 8 ปี

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ส่วนที่ 2

คำชี้แจง: กรุณาทำเครื่องหมาย X ในช่อง 1 ถึง 7 ที่ตรงกับความคิดเห็นของคุณที่สุด โดยที่

1 = ไม่เห็นด้วยอย่างยิ่ง **2 = ไม่เห็นด้วย** **3 = ไม่ค่อยเห็นด้วย**

A. การประสานงานของพนักงานต่างแผนก

ข้อคำถาม	ไม่เห็นด้วยอย่างยิ่ง						เห็นด้วยอย่างยิ่ง
	1	2	3	4	5	6	7
วิสัยทัศน์และเป้าหมายร่วม							
1) ฉันคิดว่าบุคคลากรใน BST รู้และเข้าใจวิสัยทัศน์และเป้าหมายของ BST เป็นอย่างดี							
2) ฉันคิดว่าบุคคลากรใน BST โดยทั่วไป พยายามทำงานอย่างเต็มความสามารถเพื่อช่วยผลักดันให้เป้าหมายของ BST บรรลุความสำเร็จ							
3) ฉันรู้สึกว่าบุคคลากรใน BST โดยทั่วไปสนใจติดตามความคืบหน้าในผลงานของบริษัทว่าบรรลุเป้าหมายหรือไม่อย่างไร							
ความชัดเจนของบทบาทหน้าที่การทำงาน							
4) ฉันคิดว่าบุคคลากรใน BST เข้าใจเป็นอย่างดีว่า ในแผนกของพวกเขาใครเป็นผู้มีอำนาจในการตัดสินใจ ในด้านไหน อย่างไร							
5) ฉันคิดว่าบุคคลากรใน BST ค่อนข้างจะไม่เข้าใจบทบาทของแผนกอื่นๆ ว่า แผนกไหน มีอำนาจ หน้าที่ อะไร							
6) ฉันคิดว่าบุคคลากรใน BST มีความเข้าใจอย่างชัดเจน ถึงขั้นตอน การดำเนินงาน และ การประสานงาน ระหว่างแผนกของพวกเขากับแผนกอื่นๆ							
ระบบการให้รางวัลแก่การทำงานเป็นทีม							
7) ฉันคิดว่า ระบบการพิจารณาความดีความชอบของบริษัท ทำให้เกิดการแข่งขันระหว่างพนักงานด้วยกัน มากกว่าจะร่วมมือกัน							
8) ไม่ว่าผลงานส่วนตัวของพนักงาน BST จะดีมากน้อยเพียงใด หากผลประกอบการโดยรวมของ BST ไม่ดี ค่าตอบแทนการทำงานของพนักงานก็ถูกกระทบไปด้วย							
9) ฉันไม่คิดว่าการให้ความร่วมมือที่ดีกับเพื่อนร่วมงาน จะส่งผลดีต่อเงินเดือนและสวัสดิการของบุคคลากรใน BST มากนัก							
10) ภาพโดยรวม ฉันคิดว่าระบบค่าตอบแทนการทำงานที่บริษัทใช้อยู่ช่วยส่งเสริมให้พนักงานมีความร่วมแรงร่วมใจกันทำงาน							

B. ความเป็นน้ำหนึ่งใจเดียวกันของพนักงาน

ข้อคำถาม	ไม่เห็นด้วยอย่างยิ่ง						เห็นด้วยอย่างยิ่ง
	1	2	3	4	5	6	7
ความรู้สึกของการเป็นส่วนหนึ่งของ BST							
11) ฉันเห็นว่าบุคคลากรใน BST ไม่สนใจมากนักว่าบริษัทจะประสบความสำเร็จหรือไม่ ถ้าไม่กระทบต่อรายได้และสวัสดิการของพวกเขา							
12) บุคคลากรใน BST มีความภาคภูมิใจที่ทำงานกับบริษัท BST							
13) เมื่อใดที่บริษัทBST ประสบความสำเร็จ บุคคลากรใน BST ก็มักจะแสดงเสมือนว่าพวกเขาประสบความสำเร็จไปด้วย							
14) ฉันรู้สึกว่าบริษัทBST คือส่วนหนึ่งในชีวิตของเหล่าพนักงาน							
ความมีเอกภาพในความหลากหลาย							
15) บุคคลากรใน BST พยายามหลีกเลี่ยงที่จะทำงานกับคนที่มีความเห็นไม่ตรงกับพวกเขา							
16) บุคคลากรใน BST มักจะคบหาสมาคมเฉพาะกับเพื่อนร่วมงานที่มีอะไรหลายอย่างคล้ายๆกับพวกเขา							
17) บุคคลากรใน BST ที่มักแสดงความคิดเห็นแตกต่างจากเพื่อนร่วมงาน มักไม่ค่อยได้รับการยอมรับจากเพื่อนร่วมงาน							
18) บุคคลากรใน BST ชอบระบบการทำงานที่มีการแสดงความคิดเห็นแตกต่างหลากหลาย							
19) เมื่อเพื่อนร่วมงานบางคนแสดงความคิดเห็นต่างไปจากความคิดเห็นของบุคคลากรใน BST บุคคลากรใน BST จะไม่แสดงออกอย่างโจ่งแจ้งว่าไม่ยอมรับความคิดเห็นของเพื่อนร่วมงาน แต่จะคัดค้านอย่างเงียบๆ เช่น ไม่ทำตาม เป็นต้น							
ความร่วมมือกัน							
20) กับเพื่อนร่วมงานในแผนก บุคคลากรใน BST ยินดีให้ความร่วมมืออย่างเต็มที่ แต่ไม่ค่อยให้ความร่วมมือกับเพื่อนร่วมงานต่างแผนก							
21) บุคคลากรใน BST มักจะพูดคุยสื่อสารเรื่องการทำงานกับเพื่อนร่วมงานไม่ค่อยรู้เรื่อง							
22) บ่อยครั้งที่บุคคลากรใน BST บ่นเพื่อนร่วมงานที่มักขอความช่วยเหลือบ่อยๆ ไม่รู้จักจบสิ้น							
23) ฉันรู้สึกว่าบุคคลากรใน BST ไม่ว่าจากในแผนกเดียวกันหรือต่างแผนกกัน ต่างมีความเป็นกันเอง และพร้อมให้ความร่วมมือกับเพื่อนร่วมงานในบริษัท เสมือนเป็นคนในครอบครัวเดียวกัน							

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C. นวัฒกรรมในองค์กร

ข้อคำถาม	ไม่เห็นด้วยอย่างยิ่ง						เห็นด้วยอย่างยิ่ง
	1	2	3	4	5	6	7
ความคิดสร้างสรรค์							
24) ฉันรู้สึกว่าบุคคลากรใน BST มักมีความคิดใหม่ๆเกี่ยวกับการทำงานและมักจะนำเสนอความคิดเห็นใหม่ๆต่อเพื่อนร่วมงานอยู่เสมอ							
25) บุคคลากรใน BST ไม่ค่อยมีความคิดเห็น ว่าจะปรับปรุงการทำงานของพวกเขาและเพื่อนร่วมงานให้ดีขึ้นได้อย่างไร							
26) ฉันรู้สึกว่า บุคคลากรใน BST ไม่ค่อยดิ้นรนหาวิธีทำงานใหม่ๆ							
มุมมองเชิงกลยุทธ์							
27) ฉันรู้สึกว่าบุคคลากรใน BST มักจะลงมือทำตามความคิดใหม่และวิธีการทำงานใหม่โดยไม่ได้ไตร่ตรองให้ดีเสียก่อนว่าความคิดและวิธีการใหม่นั้นจะมีประโยชน์หรือความเสี่ยงอย่างไรต่อบริษัท							
28) แม้จะคิดวิธีการใหม่ๆ ในการทำงานได้ แต่บุคคลากรใน BST มักจะลังเลที่จะนำเสนอต่อบริษัท จนกว่าพวกเขาจะทบทวนอย่างดีแล้วว่าวิธีการใหม่นั้นจะมีผลดีต่อบริษัทมากกว่าผลเสีย							
29) ฉันรู้สึกว่าขณะที่คนใน BST คุยกันถึงความคิดใหม่ วิธีการทำงานใหม่ เมื่อใหร่ที่มีมากกว่าหนึ่งความคิด/วิธีการ คนใน BST มักจะไม่พลาดที่จะเปรียบเทียบประโยชน์และโทษของความคิด/วิธีการเหล่านั้น เพื่อเลือกความคิด/วิธีที่เห็นว่าดีที่สุดสำหรับบริษัท							
การปฏิบัติงาน							
30) ใน BST มีการพูดคุยถึงวิธีการทำงานใหม่ๆเสมอ แต่ก็ได้เพียงแค่พูดคุยกัน ไม่ค่อยได้เอาความคิดใหม่ไปปฏิบัติจริงสักเท่าไร							
31) ฉันไม่คิดว่าบริษัท มีการผลักดันความคิดใหม่ๆ ไปสู่การปฏิบัติจริงมากนัก							
32) หากทราบว่าบริษัทจะมีการเปลี่ยนแปลงสิ่งใหม่ๆ ในการทำงาน บุคคลากรใน BST มักจะอยากเรียนรู้และลองทำ							
33) ฉันรู้สึกว่าบุคคลากรใน BST ชอบการทำงานที่เป็นวิธีเดิมๆ มากกว่าจะเปลี่ยนแปลงวิธีใหม่							

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Appendix D

Cronbach's Alpha Value of the Overall Questionnaire

Case Processing Summary

		N	%
Cases	Valid	20	100.0
	Excluded(a)	0	.0
	Total	20	100.0

a Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.936	33

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
q1	135.75	518.724	.463	.935
q2	135.90	500.305	.683	.933
q3	135.90	508.726	.545	.935
q4	135.05	518.155	.490	.935
q5	136.35	528.555	.170	.938
q6	135.60	510.147	.698	.934
q7	136.55	522.892	.291	.937
q8	135.15	539.082	-.027	.939
q9	135.70	554.011	-.337	.942
q10	136.55	522.892	.291	.937
q11	135.65	501.082	.529	.935
q12	135.30	497.695	.656	.933
q13	134.75	507.039	.707	.933
q14	134.90	498.621	.745	.933
q15	135.80	489.747	.683	.933
q16	135.30	499.695	.602	.934
q17	135.10	503.568	.598	.934
q18	135.75	499.355	.702	.933
q19	135.75	500.408	.710	.933
q20	135.45	522.682	.295	.937

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
q21	135.75	497.776	.732	.933
q22	135.65	504.450	.595	.934
q23	135.35	515.608	.316	.937
q24	136.60	489.726	.686	.933
q25	136.55	499.418	.639	.933
q26	136.10	507.147	.631	.934
q27	135.30	505.905	.651	.934
q28	135.70	505.168	.510	.935
q29	135.25	501.355	.617	.934
q30	137.10	494.305	.677	.933
q31	136.70	484.747	.769	.932
q32	135.70	502.432	.663	.933
q33	136.00	498.947	.616	.934

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Appendix E

Cronbach's Alpha Value of the First Independent Variable:

Employee inter-functional Coordination

```
RELIABILITY
  /VARIABLES=q1 q2 q3 q4 q5 q6 q7 q8 q9 q10
  /SCALE('ALL VARIABLES') ALL/MODEL=ALPHA
  /SUMMARY=TOTAL .
```

Reliability
Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	19	100.0
	Excluded(a)	0	0.0
	Total	19	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
0.940	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
q1	41.21	50.398	0.913	0.927
q2	41.58	52.146	0.708	0.936
q3	41.21	49.064	0.903	0.926
q4	41.42	52.591	0.659	0.939
q5	41.84	55.918	0.555	0.942
q6	41.79	51.731	0.785	0.933
q7	41.74	53.316	0.658	0.938
q8	41.58	50.480	0.786	0.933
q9	41.58	51.702	0.741	0.935
q10	41.95	50.497	0.854	0.929

Appendix F

Cronbach's Alpha Value of the Second Independent Variable:

Employee synergy

```
RELIABILITY
  /VARIABLES=q11 q12 q13 q14 q15 q16 q17 q18 q19 q20 q21 q22 q23
  /SCALE('ALL VARIABLES') ALL/MODEL=ALPHA
  /SUMMARY=TOTAL .
```

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	19	100.0
	Excluded(a)	0	0.0
	Total	19	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
0.930	13

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
q11	58.37	89.135	0.601	0.928
q12	58.32	91.228	0.576	0.929
q13	58.42	87.591	0.787	0.922
q14	58.16	90.251	0.620	0.927
q15	58.42	88.035	0.716	0.924
q16	58.42	87.924	0.683	0.925
q17	58.32	89.339	0.641	0.926
q18	58.47	87.819	0.713	0.924
q19	58.42	88.480	0.692	0.925
q20	58.58	86.924	0.780	0.922
q21	58.68	88.228	0.785	0.922
q22	58.74	86.760	0.693	0.925
q23	58.47	88.374	0.647	0.926

Appendix G

Cronbach's Alpha Value of the Dependent Variable:

Innovation in Organization

```
RELIABILITY
  /VARIABLES=q24 q25 q26 q27 q28 q29 q30 q31 q32 q33
  /SCALE('ALL VARIABLES') ALL/MODEL=ALPHA
  /SUMMARY=TOTAL .
```

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	19	100.0
	Excluded(a)	0	0.0
	Total	19	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
0.947	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
q24	38.42	86.146	0.667	0.946
q25	38.53	84.708	0.673	0.946
q26	38.47	82.596	0.792	0.941
q27	37.84	81.474	0.904	0.936
q28	38.05	83.164	0.843	0.939
q29	37.95	81.386	0.791	0.941
q30	38.53	83.596	0.726	0.944
q31	38.53	81.930	0.807	0.940
q32	38.21	82.731	0.838	0.939
q33	38.21	80.953	0.761	0.943

Appendix H

Normality Test of Pilot Test Data

```
FREQUENCIES
  VARIABLES=mean
  /STATISTICS=STDDEV MEAN
  /HISTOGRAM  NORMAL
  /ORDER=  ANALYSIS .
```

Frequencies

Statistics

mean

N	Valid	20
	Missing	0
Mean		4.2424
Std. Deviation		0.70335

mean

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.58	1	5.0	5.0	5.0
	3.52	1	5.0	5.0	10.0
	3.55	1	5.0	5.0	15.0
	3.70	1	5.0	5.0	20.0
	3.79	1	5.0	5.0	25.0
	3.88	1	5.0	5.0	30.0
	3.94	1	5.0	5.0	35.0
	4.09	2	10.0	10.0	45.0
	4.21	2	10.0	10.0	55.0
	4.30	1	5.0	5.0	60.0
	4.45	1	5.0	5.0	65.0
	4.52	1	5.0	5.0	70.0
	4.55	1	5.0	5.0	75.0
	4.58	1	5.0	5.0	80.0
	4.79	1	5.0	5.0	85.0
	4.88	1	5.0	5.0	90.0
	5.61	1	5.0	5.0	95.0
	5.64	1	5.0	5.0	100.0
	Total	20	100.0	100.0	

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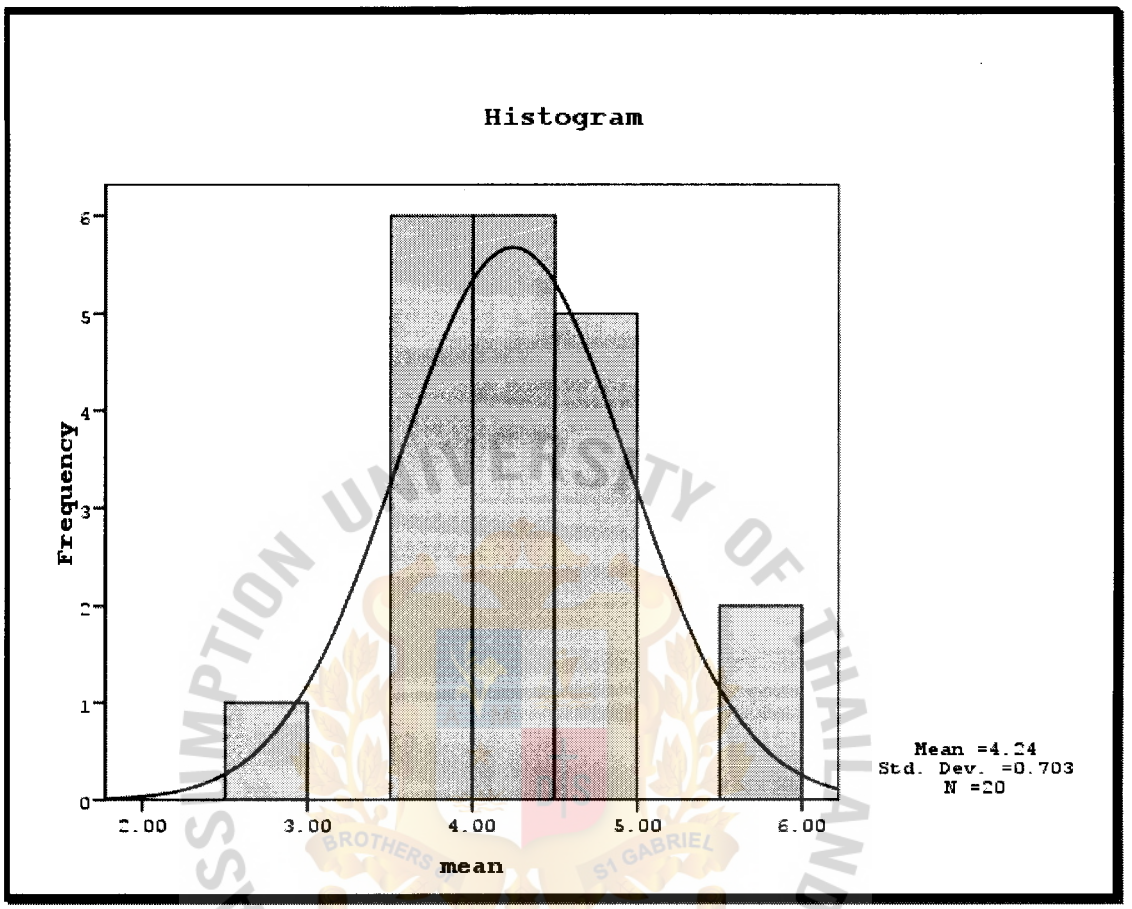

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Appendix I

Observation Evidence and Interpretation – Pre ODI

Variable – Employee inter-functional Coordination

Sub-Variable	Evidence	Interpretation
Shared vision and goal	Many employees made decisions which they believe will benefit them most and moved forward with those decisions although they knew of possible negative affects on other divisions.	Employees concentrated on their divisional goal more than the shared organizational goals. Employees were not working in alignment toward a common goal.
	Some employees mentioned that problems of other divisions are not their issue.	
	Most employees monitored their divisional performance against divisional goal. But didn't talk about organizational performance.	
Clarity of roles and functions	Some employees forward works to wrong divisions.	Roles and functions of some positions were not clear to employees.
	There were mistakes in work resulted from employees from related job functions each thought the work isn't under their	
	There were work related arguments among employees whether which division should do what, or sometimes about who in which division should be the one to perform a particular task.	
Team reward system	Many employees made decisions which they believe will benefit them most and moved forward with those decisions although they knew of possible negative affects on other divisions.	Employees gave higher value on reward from divisional performance than reward from organizational wide performance.
	Some employees mentioned that problems of other divisions are not their issue.	
	Most employees talk about only two types of reward: year end bonus and salary adjustment, in the meaning that both are linked to divisional performance, rather than company performance.	Employees focus more on individual reward and divisional reward, than the overall organizational team reward. The team reward system was not effective.

Appendix J

Observation Evidence and Interpretation – Post ODI

Variable – Employee inter-functional Coordination

Sub-Variable	Evidence	Interpretation
Shared vision and goal	Many employees asked about problems of other divisions and offer helps.	Employees were interested in performance of other divisions which affect performance of the overall organization.
	In general, decisions made by employees cover concerns of different related divisions.	Efforts of employees across different divisions were aligned.
	Employees from different divisions exchanged ideas to improve effectiveness in serving customers.	
	Employees monitored organizational performances against organizational goals.	Employees care of organizational performance and goals.
Clarity of roles and functions	In general, employees contacted right person in other divisions when forwarding work or follow up work.	Roles and functions were clear to employees.
	Work flows smoothly from employee to employee and from division to division	
Team reward system	Employees often talk about team reward if the shared objectives were achieved.	Employees were motivated by the team reward.
	Employees were actively helping one another across functions in order to achieve the team reward.	

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Appendix K

Semi-Structured Interview- Response and Analysis – Pre ODI

Variable – Employee inter-functional Coordination

Sub-Variable – Shared Vision and Goal

Respondent	Response	IC	IE	IPU	IPR
R6	"I know that BSG has a vision statement, but I'm not sure if BST share the same vision with BSG." Our organization structure is functional; therefore our goal is functional goal."	x			
R27	"I find it hard to relate our organizational vision to my work. The vision statement mentioned that we create flavor and fragrance but my job is not creating flavor and fragrance." "I don't think people here work toward a common goal. There is wall between divisions."	x			
R29	"I have never heard of organization vision." "People here are nice, but I don't think we are working toward a commond goal."	x			x
R39	"The vision statement is somewhere on the paper, but it has no life." "People focus only on their part of job for the performance of their division." "They don't show interest in the total performance of company."	x		x	
R51	"Although I don't remember exactly what was said in our vision statement, I do feel that the vision is not inspiring." "I has been quite often feeling isolated in my own area."				x
R57	"I don't think people here understand vision of company" "There are two business units in this organization. People from different divisions within my business unit are supportive and align. But I'm not sure of another business unit, I heard there are some conflicts between divisions"	x			x
R61	"I cannot remember what our vision is." "I don't think people from differenct job functions work toward a common goal. "We only have divisional goals. We do not have a goal of the entire organization. Or may be we have one, but I don't know."	x			
R66	"I heard of our organization vision but I can't remember." People here work hard with full responsibility to achieve one's target, but don't have much care about performance of organization as a whole.			x	
R67	"Do we have a vision? What is it?" "I supposed if everybody did their part well, it will automatically add up to the better performance of company."	x		x	
R73	"I don't know about company vision." "BST employees are committed to the success of company. We did the best in our part."			x	x

Appendix L

Semi-Structured Interview – Response and Analysis – Pre ODI

Variable – Employee inter-functional Coordination

Sub-Variable – Clarity of Roles and Functions

Respondent	Response	IC	IE	IPU	IPR
R6	We know what we have to do, and we have pity good idea what are the responsibilities of our colleague outside our division.	x			
R27	"I think I know scope of my roles and know scope of roles of colleague in work related divisions, but I have little idea about roles and responsibilities of some divisions which are not related to my work. I suppose others employees feel the same." "People from different job functions seldomly talk with each other."	x			
R29	"With the current organization structure, sometimes I am not clear whom should I go to for some specific issue. There is some degree of gray areas."	x			
R39	There are still some unclear areas. We have job description for most positions, but quality of our job description is in doubt whether it is clear, overlap, or having gaps between related positions.	x			
R51	During the stable time, people know what they should do, what are under their authority and responsibilities. However, many times, the company announcing changes without clear explanation about new roles of employees.	x			
R57	"I am clear of my own role, but I am not sure what can I expect from other divisions."	x			
R61	Employees who have been working with the company for long time are clear on their roles and functions, but new employees are sometimes confused.	x			
R66	It is quite often that we have problems between two or more different job functions; the surprise is that all of us think we already did our best, covering all our duties. I believe there are some misunderstanding about the correct roles and functions of some positions.	x			
R67	The company is able to conduct business quite smoothly so I assume that employee knows one's roles and functions quite well.	x			
R73	"We have no issue about our own responsibility, but sometimes we forward work to wrong person."			x	

Appendix M

Semi-Structured Interview – Response and Analysis – Pre ODI

Variable – Employee inter-functional Coordination

Sub-Variable – Team Reward System

Respondent	Response	IC	IE	IPU	IPR
R6	The bonus system here is very complicated. I never have clear understanding. "We have divisional goal, but I believe my bonus is also affected by the overall performance of the company. Hence I also need to support my colleague for the company to perform good."	x			x
R27	"Bonus system of employees at lower job grade are somewhat supporting teamwork, but bonus system of employees at higher job grade seems to be very complex, I think it provides less support to teamwork"	x			
R29	I think our reward is link to personal performance and divisional performance more than organizational performance.	x			
R39	"I don't think the current reward system promote teamwork. It give more weight on functional performance than corporate performance"	x			
R51	Reward system of this company is getting worse. It is de-motivating. It is certainly not supporting teamwork.	x			
R57	"The reward system here is confusing. I don't think it promote team spirit. However, people here are nice in general and having high team spirit."	x			x
R61	The reward system here is okay. It's partly promote cross functional teamwork.	x			
R66	I know roughly that part of my bonus is coming from the overall performance of company, so I think the reward system of this company does promote some level of teamwork across divisions.	x			
R67	"I don't think the current company reward system is fair and efficient. It not encourages employees to love one another. It promotes selfish."	x			
R73	Reward system is very confusing and mysterious. It is not appropriate for teamwork.	x			

Appendix N

Semi-Structured Interview – Response and Analysis – Post ODI

Variable – Employee inter-functional Coordination

Sub-Variable – Shared Vision and Goal

Respondent	Response	IC	IE	IPU	IPR
R6	"Our vision is not generic for all works in the company, it only talk about creative division" "Although it is challenging, we have fun and encouragement in trying to hit the company sales target, while saving as much as we can." "Now I can feel that people have the same goals in mind, which I didn't feel it before."	x	x	x	x
R27	Vision is a far away thing. It is not as important as goal. "Now I can feel that in most meetings, people are talking same language, thanks to the shared goals we have."	x		x	x
R29	"I am not really inspired by our company vision, but I can accept it" "I feel people here work together for the good of BST. "People often talk about their own divisional goal.	x	x	x	x
R39	The company vision is action-base, it is better to have a result-base vision. "I can see that our staff are actively trying to meet organization sales and keep cost low. But they are not compromise for performance of their division"	x		x	x
R51	As an affiliate, we need to follow the vision of BSG, so it is not worth commenting the vision statement. "I think people here are responsible for performance of the company. We are willing to help each other to get job done to win business."	x		x	x
R57	"I feel neutral with our vision" "I feel that people whom I work with are accountable and commit to achieve collective results."	x		x	x
R61	"The vision statement is okay" "People in this organization are headed toward the organizational success."			x	x
R66	"Whether the vision exist or not, is not affect me." "I'm very happy that we were able to achieve the sales budget and cost saving target as intended. It proved that people here are walking toward same objective."	x		x	
R67	It is good to have a vision statement although it is not really in use. "It is clear that everyone in this company help each other in order for the company to achieve budget."	x		x	x
R73	"It is good to have a vision statement, it make the company look good although it is not really in use" "our colleague are very determine to make BST a successful company, with higher business volume every year."	x		x	x

Appendix O

Semi-Structured Interview – Response and Analysis – Post ODI

Variable – Employee inter-functional Coordination

Sub-Variable – Clarity of Roles and Functions

Respondent	Response	IC	IE	IPU	IPR
R6	I sense that roles and functions are clear by employees. When assigned work I have never done before, I get the necessary instructions to do a good job.	x	x	x	
R27	People are clear of their own roles and functions. People are getting along better, and have better ideas about roles and functions of their colleague.	x			x
R29	There are very few roles conflicts nowadays. People know that they should follow up their work with whom. People are doing what they should do.	x		x	
R39	People have pity clear idea about roles and functions of their own as well as roles and functions of their colleague. It was a good initiative that we tried to close gaps between job positions. However, it is not possible to totally clean up job conflict because it is not possible to state all job details in job description.	x		x	
R51	It was good that we clean up those unclear areas between job positions. Now I feel people are clear on what should they do and not do.	x		x	
R57	"I think people here know their roles and functions well. However, whether they know role and functions of their colleague is depended on their own interest. Some people know most of the job positions, but some people know very little."	x			x
R61	People in this organization are clear of roles and functions of their own and of their work related colleague. They can handle work without conflict.	x			x
R66	"I feel that our work flow smoothly from division to division. So I suppose people have good understanding about one's own responsibilities."	x			x
R67	"I think roles and functions are clear to the employees." "Everyone is doing one's job correctly."	x		x	
R73	Employees are clear of their own roles and responsibility, and they have clearer ideas about roles and functions of their colleague.	x			x

Appendix P

Semi-Structured Interview – Response and Analysis – Post ODI

Variable – Employee inter-functional Coordination

Sub-Variable – Team Reward System

Respondent	Response	IC	IE	IPU	IPR
R6	The special reward given to employees at the end of intervention was very effective in promoting teamwork in this company.	x			x
R27	The main reward system of company is partly promoting teamwork, but the added reward system link to the ODI is fully promoted teamwork.	x			x
R29	It is easy for employees to see that this company link reward to the overall performance of company.	x			
R39	People are continue to focus more on their functional goal, but they also work closer with colleague in other divisions to achieve the team reward set from ODI program	x			x
R51	"I am very happy with the part of team reward the company added to the usual reward system. It really encourages employees throughout organization to work in team."			x	x
R57	"I don't think the core reward system promotes teamwork, but the added one has high affect on teamwork."	x			x
R61	The team reward set by ODI program is clearly promoted cross-functional teamwork.	x		x	x
R66	I think reward system in this company motivate employees to work as team for team reward.	x			x
R67	The official reward system is not supporting teamwork, but the special reward set from ODI program is clearly support employees across divisions to work as a single team.	x		x	x
R73	Employees forgot about the official reward system because they were very exciting to achieve the special reward from ODI program.			x	x

Appendix Q

Observation Evidence and Interpretation – Pre ODI

Variable – Employee synergy

Sub-Variable	Evidence	Interpretation
Sense of team identity	Most employees monitored their divisional performance against divisional goal, but didn't talk about organizational performance.	Employees identified themselves with their division rather than with organizational.
	Many employees made decisions which they believe will benefit them most and moved forward with those decisions although they knew of possible negative affects on other divisions.	
	Some employee mentioned that problems of other divisions are not their issue.	
	Many employees complained about the way the company treat them.	Employees has negative attitude about the company. There was certain level of issue about sense of team identity.
	There were employees complaining one another.	Employees has negative attitude about their colleague. There was certain level of issue about sense of team identity.
Unity in diversity	Many employees made decisions which they believe will benefit them most and moved forward with those decisions although they knew of possible negative affects on other divisions.	Cross-functional employees were not in unity.
	There were work related arguments among employees whether which division should do what, or sometimes about who in which division should be the one to perform a particular task.	
	When some particular employees participated in meetings, atmosphere of those meetings was tensed and stressful. There was no teasing. The team has tension. People were very careful what to speak. Whenever, didn't presence, other participants were teasing one other's comments. There were lots of laughter and free flow of ideas.	Employees didn't accept some of their colleague.
	Tone of employees' communications was defensive.	There was low trust among employees. Employees were not united.
Collaboration	Some employee mentioned that problems of other divisions are not their issue.	Employees from different divisions didn't collaborate with one another. There was low level of cross functional collaboration.
	In general, employees from different divisions stayed in separation with little interaction.	
	Employees worked separately focusing on individual tasks.	

Appendix R

Observation Evidence and Interpretation – Post ODI

Variable – Employee synergy

Sub-Variable	Evidence	Interpretation
Sense of team identity	Employees help buying breakfast for people in other divisions.	Employees from different divisions have good personal relationship.
	Employees from different divisions exchanged ideas to improve effectiveness in serving customers.	Employees from different divisions team up together and committed to organization.
	In general, meetings included participants from different divisions. Participants proposed solutions and determined what is the best for orgainzation without "pride of ownership".	
	Employees from different divisions participated actively and positively in works and in meetings.	
	Employees pulled together and worked overtime (without pay) to get job done.	
	Employees discussed positively about organization.	Employees have positive attitude about the organization.
	In general, employees criticized comments of one another constructively.	Employees care of one another and care for organization.
Unity in diversity	Employees from different divisions having lunch together.	Employees from different divisions accepted, respect, and value one another.
	Employees from different divisions joking with one another.	
	Employees help buying breakfast for people in other divisions.	
	Many employees asked about problems of other divisions and offered help.	
	Employees from different divisions exchanged ideas to improve effectiveness in serving customers.	
	In general, employees involved people from other divisions in making decision.	
	In general, employees criticized comments of one another constructively.	
Collaboration	Employees from related divisions jointly visit customers.	There was good level of collaboration of employees from different divisions.
	Employees from different divisions exchanged ideas to improve effectiveness in serving customers.	
	In general, business decisions were jointly made by employees from different divisions.	
	Employees from different divisions participated actively and positively in meetings and projects.	
	Many employees asked about problems of other divisions and offer helps.	

Appendix S

Semi-Structured Interview – Response and Analysis – Pre ODI

Variable – Employee synergy

Sub-Variable – Sense of Team Identity

Respondent	Response	IC	IE	IPU	IPR
R6	"People are not "The One-Man Show" but we are 'The Separated Divisional Show"	x			
R27	"I think older people are more loyal to the company. While younger employees are ready to change job anytime they get better offer, better job."	x			
R29	"This company is lucky having people with high team spirit. But with the current organization structure, there are many teams within this company."	x			x
R39	Majority of our employees are new comers. I do not think they are bound by the company. I think employees works here because they can get higher benefits than working with other company.	x			
R51	I don't think employees feel oneness with company. We are quite de-motivated. "I feel people become more apathetic."	x			x
R57	I think different people may think differently. For me, I think this company is fine and I determine to work for the company for long term.	x			
R61	I feel that people like the company and feeling good working for this company.				x
R66	I don't know how other people feel, but for me, I come to work for making my living. This company is not too bad in term of payment and overall benefits.			x	
R67	"People in this company work for their own benefits. Their motivation is from what they can get from the company. They are not committed to the company."			x	
R73	"Employees are committed to the company. We are doing everything possible to achieve our target." (division target).			x	x

Appendix T

Semi-Structured Interview – Response and Analysis – Pre ODI

Variable – Employee synergy

Sub-Variable – Unity in Diversity

Respondent	Response	IC	IE	IPU	IPR
R6	Majority of us are nice people. Some are unique, but not at the extreme level that can't be accepted. People here can get along quite well.				x
R27	"I think there is more trust among people within same division, but for trust between divisions, I can see it happened only with specific persons, not in general."	x			x
R29	People don't really reject each other, but we tend to keep distance from those who are difference. "we're not comfortable challenging each other."	x			x
R39	I don't think people can really accept one another. They tend to express as if they agree with each other, but actually, they are not.	x			
R51	We stay in our group and try to keep distance with those who have different mindset.				x
R57	Although we are different, we still can work together and make friends.	x			x
R61	Most people gather only with whom they feel comfortable with.				x
R66	"I don't think there is good level of unity in our company. People come to work on their responsibility, once finished their job, they go back home. People from different divisions have low interaction."	x			
R67	"We have no quarrel and we don't feel very close, but we can work together without serious problem."			x	
R73	People in this company accept each other quite well.				x

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Appendix U

Semi-Structured Interview – Response and Analysis – Pre ODI

Variable – Employee synergy

Sub-Variable - Collaboration

Respondent	Response	IC	IE	IPU	IPR
R6	We work close to one another. We are counting on colleague from all divisions to continue to focus on meeting customer demands.			x	x
R27	Although people are nice and helping colleague within same division, we don't extend much help to colleague from different divisions.	x			
R29	People do helping each other, but not to the full level. There is energy reserved.	x			
R39	"Everyone focus on self-survive because we are measured by our own KPI." It looks like the company policy promotes disunion." (KPI=Key Performance Indicator)	x			
R51	I think that collaboration is relatively good within division, but low between divisions.	x			
R57	"I think this area is very individual. It's depend on personal character of people. Some are very supportive, some are more self-oriented." "People here are supportive at certain level, but it is not yet at the level of brothers and sisters.	x			
R61	Most people here focus on individual success, looking out for themselves. Although we are closed physically, we have little relate to one another about work. We only do small talk to one another."				x
R66	"I think that most people in this organization tend to hold back their opinions and honest concerns in order to avoid conflict during staff meetings and other interactions."	x			
R67	People don't give fully assistance to their colleague in other divisions. To seek help from other divisions, I have to put some level of effort.			x	
R73	Most people here are kind, and willing to help each other.				x

Appendix V

Semi-Structured Interview – Response and Analysis – Post ODI

Variable – Employee synergy

Sub-Variable – Sense of Team Identity

Respondent	Response	IC	IE	IPU	IPR
R6	I think people here feel good being the team of BST.	x			x
R27	"I can see that the company tried to give employees as much as the company can, so I feel grateful and I intended to serve long years for this company."	x			x
R29	I can feel the changes; BST is a fun working place. We face business problems everyday, but together we can get through them, thanks to the team spirit of people here.			x	x
R39	The company gives many supports to employees. This make employee's feel that they need to be fateful to the company.	x			x
R51	"I can feel a strong team spirit in this company."			x	x
R57	"My mother was admitted to a hospital, many of my colleagues went to visit my mother at the hospital. Many colleagues made me impressed by their caring on me. I think BST is a high morale workplace with nice people. I enjoy working here."	x		x	x
R61	I like the company and I think others feel the same. The company pays employees well. The company takes good care of employees. I feel I am accepted by my colleague and give value to the company.				x
R66	I love this company. There are many humors, joking. I am happy being employees of this company		x		x
R67	"Every company has good point and bad point. Overall, I don't think I can find a better company than BST. I don't think people here struggle to move out of this company. I feel we work happily here. Perhaps this is the reason why there are many long years' employees in this company."	x		x	x
R73	People here love the company. Personally, I feel life is meaningful working for this company.			x	x

Appendix W

Semi-Structured Interview – Response and Analysis – Post ODI

Variable – Employee synergy

Sub-Variable – Unity in Diversity

Respondent	Response	IC	IE	IPU	IPR
R6	"I feel that my colleague value ideas and comments of each others."		x		x
R27	I can see that people from different divisions are now having better relationship.	x			x
R29	We can accept each other and work together because we understand that people are different.	x		x	x
R39	"People accept one another better." "There is better personal relationship among employees."				x
R51	"Our working environment is lively and friendly. Most people dare sharing their thinking including those that are divergence."		x	x	x
R57	I enjoy working for BST because I think the company is strong and I have lots of friends including those who have different characters and attitudes here.	x		x	x
R61	I can feel that people are more comfortable working together and are having a broader social within the company.			x	x
R66	I feel that I am a team member of this company. I feel comfortable with most people here.				x
R67	We have positive feeling toward our colleague even though there are some different among us.			x	x
R73	"I think people here like one another." We can easily interact with one another without problem.			x	x

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Appendix X

Semi-Structured Interview – Response and Analysis – Post ODI

Variable – Employee synergy

Sub-Variable - Collaboration

Respondent	Response	IC	IE	IPU	IPR
R6	People in this company are supportive. We always help each other to overcome troubles.				x
R27	I think people are collaborative. "I found meetings in our company fun, not boring, people listen to each others. And I learn many new things out from meetings."	x		x	
R29	"People are willing to share good time and bad time together."			x	x
R39	Workplace becomes more exciting and joyful with people working close to one another, with lesser gap between sub-groups.			x	x
R51	People between divisions are working closer. There are more meetings, which participants are from various divisions.	x		x	
R57	"In this company, I never feel lonely. I can always seek advice and help from my colleague."		x		x
R61	I not waiting other people to contact me but I reach out to them with any questions I may have. I feel people in this company are reachable and helpful.			x	x
R66	When things went wrong, we are not pointing finger to one another. We always collaborate to find ways to satisfy customers first.		x	x	x
R67	I find people here are pleasant and cooperative to work with.			x	x
R73	Three is no need for people to ask for help. When there is problem, people automatically offer help.			x	

Appendix Y

Observation Evidence and Interpretation – Pre ODI

Variable – Innovation in Organization

Sub-Variable	Evidence	Interpretation
Creativity	Employees worked in a routine way.	There was relatively low level of creativity.
	In general, employees seldom propose new ideas or ways of solving problems.	
Strategic perspective	In general, employees gave full endeavor in serving customers without comparing affect of cost and benefit to the organization.	Employees didn't apply strategic perspective in relating to organizational performance.
Implementation	Employees worked in a routine way.	There was low level of putting new ideas into practice.

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Appendix Z

Observation Evidence and Interpretation – Post ODI

Variable – Innovation in Organization

Sub-Variable	Evidence	Interpretation
Creativity	Employees from different divisions exchanged ideas to improve effectiveness in serving customers. They differentiated between high potential customers and low potential customers, and planned different levels of service in serving the two different groups of customers.	There was relatively high level of creativity.
	In meetings, both formal and informal, employees generated a large number of ideas or solutions to problems and questions, and happily topping up ideas of colleagues.	
Strategic perspective	In general, employees gave full endeavor in serving customers without comparing affect of cost and benefit to the organizaiton. However, in one meeting, employees from different divisions exchanged ideas to improve effectiveness in serving customers and they differentiated between high potential customers and low potential customers, and planned different levels of service in serving the two different groups of customers.	Employees seldom applied strategic perspective in relating to organizational performance.
	There were a few occasions when group of employees, either from same division or from different divisions, jointly evaluate cost and benefit of different business alternatives in order to determine the best business option for organization.	
Implementation	Not many of new business ideas were implemented. Most employees continue to work with existing methods.	There was relatively low level of putting new ideas into practice.

Appendix AA

Semi-Structured Interview – Response and Analysis – Pre ODI

Variable – Innovation in Organization

Sub-Variable – Creativity

Respondent	Response	IC	IE	IPU	IPR
R6	"I think people here are mixed; the older ages are more conservative, while the young are more creative but less careful."	x			
R27	I think some people are creative but some are not.	x			
R29	Employees here are generally competent and capable. We need to spend more time analyzing our business model in order to understand how to better achieve performance.	x			
R39	I don't think we are very creative. We rely on working harder, not smarter, in finishing our works.	x			
R51	"People here are smart and can be creative, but are overloaded, do not have much time to think of new way of working, or to try doing different things. We just try to finish our daily work."	x		x	
R57	"It is not clear to me as I think BST people both conservative and rebellious at the same time."	x			
R61	"I feel people in this company are working with traditional method, so I believe we are not very creative"				
R66	Some people in this organization have good ideas, but some people are not, they usually rely on guidance of managers in solving problems.	x			
R67	People here can be creative, but so far, they do more than think. "We have lots of work to finish, so just-do-it".			x	
R73	People here are quite creative, we always talk about new ideas.			x	

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Appendix AB

Semi-Structured Interview – Response and Analysis – Pre ODI

Variable – Innovation in Organization

Sub-Variable – Strategic Perspective

Respondent	Response	IC	IE	IPU	IPR
R6	A chosen business decision is usually passed through evaluation process to justify if it will generate net value for the company, however, evaluating data may not be broad and details enough to cover all important aspects, so some decisions seem to be unwise.	x			
R27	People here are careful. Before doing anything, most people often thinks carefully, what will be the impact on themselves and what will be the impact on company.	x			
R29	I don't know exactly what criteria were used with business decision of our company. However, I see that many decisions are good for short-term performance but may have negative affect on longer-term performance of the company.	x			
R39	BST employees are not strategic. "They just do the routine work."	x			
R51	Some of the decision were made with bad logic. Quite often, it is good for someone or some division, but not worth for the company.	x			
R57	I feel that our business decision is based on what serve customer better. Sometimes, we forget about its cost.	x			
R61	I don't see that people in this company stop to question the way they have been working whether it is worth the resources spent.	x			
R66	I don't know much about this question. Managers make business dicisions, I don't know what are the criteria they use. "I am not sure we are strategic. We follow orders of managers."			x	
R67	I have never thought of this issue. I guess we use common sense, which means comparison of profit and loss.	x			
R73	We are not strategic. "We don't analyze much details"			x	

Appendix AC

Semi-Structured Interview – Response and Analysis – Pre ODI

Variable – Innovation in Organization

Sub-Variable - Implementation

Respondent	Response	IC	IE	IPU	IPR
R6	People here don't reject to put new idea into practice, just that we are too busy to start doing something new as we have been trying to finish the routine work in front of us.	x		x	
R27	"It is difficult to implement new idea. Because it is nature of people that feel more comfortable following current practice."	x			
R29	Things get done fast when it is part of the work. "If it is an order of manager, things are executed quickly."	x			
R39	Implementation process is not difficult but people are more comfortable with the usual way of work, perhaps they don't want to waste time learning new ways of working.	x			
R51	"People here are smart and can be creative, but are overloaded, do not have much time to think of new way of working, or to try doing different things. We just trying to finish our daily work."	x		x	
R57	People don't reject new way of work. They are neither keen to try new things. Management should consider providing some form of motivations to stimulate employees.	x			
R61	It is not difficult to implement new ideas, but people here just follow the routine way of working.	x			
R66	If it is command by boss, people usually follow. But if it is self initiative, people tend to hesitate. Perhaps they afraid that their initiative may cause problem to company and it will backfire them.	x			
R67	I don't see problem with implementation. Whatever the company wants, we do.			x	
R73	"The process of putting new ideas into practice in our company is not too complicate or too difficult, but people just get used to same old practice."	x		x	

Appendix AD

Semi-Structured Interview – Response and Analysis – Post ODI

Variable – Innovation in Organization

Sub-Variable - Creativity

Respondent	Response	IC	IE	IPU	IPR
R6	We are quite creative. We enjoy sharing new ideas and new ways of work.		x	x	
R27	"Creativity is individual. Some people are very creative but some are not really. Overall, there are more creative people than not-creative people in this company.		x		
R29	Many people are creative. We have new ideas all the time. "We always seek opportunities to improve efficiency in order to better serve customers."	x	x	x	x
R39	Not sure whether people are creative. "People generate lots of ideas, but those are just ideas. There are more quantity than quality."	x	x		
R51	"We always have interesting new ideas out from our meetings. How can we say, we are not creative?"		x	x	
R57	Individually, we are not very creative. But when we are together, we always arrived at many good ideas.		x	x	x
R61	I feel that we are not too bad in creativity. Many of us have good ideas but we usually express it during informal conversation. We rarely propose new ideas to management.		x	x	x
R66	"Yes, I think most people in this company like to think of new ideas. Actually, we enjoy topping up our new ideas. It was fun."		x	x	
R67	People have broader business view; hence can generate more and better ideas.	x	x		
R73	People here are creative. We enjoy sharing new ideas.		x	x	x

Appendix AE

Semi-Structured Interview – Response and Analysis – Post ODI

Variable – Innovation in Organization

Sub-Variable – Strategic Perspective

Respondent	Response	IC	IE	IPU	IPR
R6	We are strategic. "People here often remind each other to keep our customers' brand in mind and to think of what is a perceived value by customers."	x	x	x	x
R27	People here are smart and strategic. It is natural that we consider cost, risk and benefit when making business decision.	x	x	x	
R29	I feel the company is very cost conscious. However, when it comes to business decision, cost is often seen as investing capital, if it generates higher benefits, then a green light is given.	x		x	
R39	I don't think we are strategic. We made many quick decisions without thinking much about its real impact.	x		x	
R51	"Because of better relationship between divisions, people are seeing broader picture of business, I think resources here are better utilized." We are more strategic in using our people and assets.	x	x		x
R57	We are more careful in making business decision. Although we are endeavoring to win new business in order to increase sales, we need to think of its cost as well. Now we are not focusing only on sales, but also profit.	x	x	x	
R61	I don't believe we are strategic. We have fun proposing ideas but don't seriously discuss about its affect.	x		x	
R66	I think different business decision need different criteria. I am not in the position to answer this question. I think people here are strategic. We compare cost and benefits before making decision.	x		x	
R67	"Employees of BST are strategic." "I heard people discussed positive and negative effect of decisions."	x	x	x	
R73	New ideas are usually discussed and evaluated formally or informally for its net value to the company.	x	x	x	

Appendix AF

Semi-Structured Interview – Response and Analysis – Post ODI

Variable – Innovation in Organization

Sub-Variable - Implementation

Respondent	Response	IC	IE	IPU	IPR
R6	Usually those ideas, which don't take much time, are executed. Nevertheless, new ideas, which take time in execution, are put on hold then sometimes forgotten.	x		x	
R27	It is not difficult to implement new things in this company, but people may concern about risk. "I think the team is willing to take risks - if the impact is not too much."	x			x
R29	There will be more implementation if we have more time.	x		x	
R39	Employees of BST are not strongly rejecting new ways of working. They usually comply to requirements of company.	x			x
R51	I believe there will be more people try new ideas in works if we have some trial time.	x		x	
R57	There is no problem with implementation. People are complying with company policy and orders. Implementation can easily be done when employees considered it is part of their job.	x		x	x
R61	I don't feel difficulty putting new ideas into practice, but I guess we didn't execute new ideas because we aren't serious about them.		x	x	
R66	The process is not difficult to implement new ideas. We can start implementation right after agreement from meeting.	x			x
R67	People don't put many of their own idea into practice, but they don't resist what the company want them to implement.	x		x	
R73	People in this organization can accept new way of working. "We gradually improve our working methods and work process."			x	x

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Appendix AG

Normality Test of Pre ODI Data

```
FREQUENCIES
  VARIABLES=mean
  /STATISTICS=STDDEV MEAN SKEWNESS SESKEW
  /HISTOGRAM  NORMAL
  /ORDER=  ANALYSIS .
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Frequencies

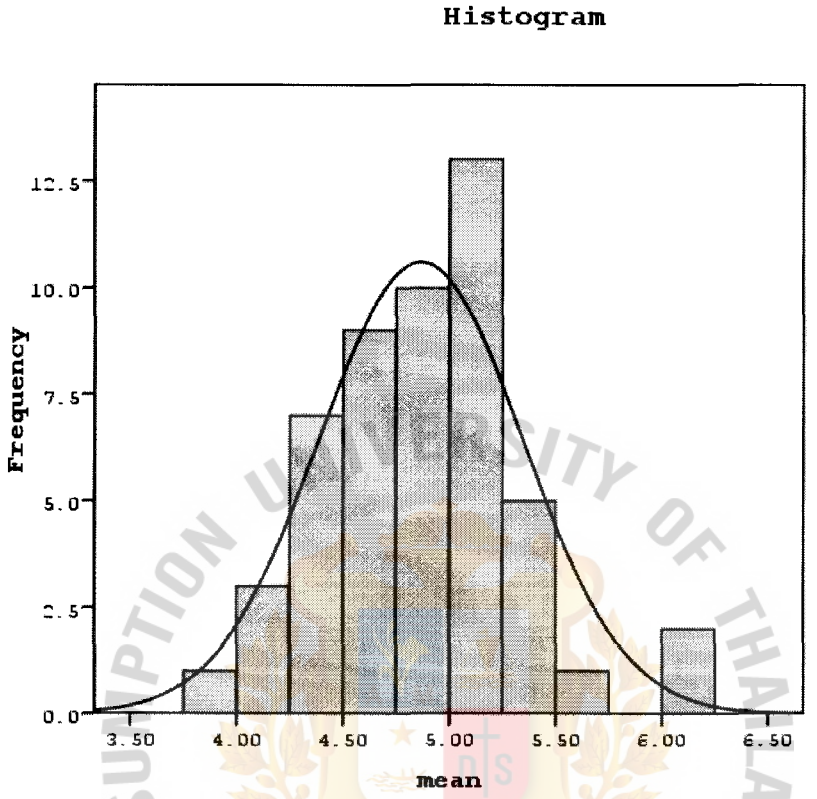
Statistics

mean

N	Valid	51
	Missing	0
Mean		4.8657
Std. Deviation		0.47960
Skewness		0.471
Std. Error of Skewness		0.333

mean

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.94	1	2.0	2.0	2.0
	4.00	1	2.0	2.0	3.9
	4.06	1	2.0	2.0	5.9
	4.12	1	2.0	2.0	7.8
	4.27	4	7.8	7.8	15.7
	4.36	2	3.9	3.9	19.6
	4.45	1	2.0	2.0	21.6
	4.58	1	2.0	2.0	23.5
	4.61	1	2.0	2.0	25.5
	4.64	2	3.9	3.9	29.4
	4.67	1	2.0	2.0	31.4
	4.70	1	2.0	2.0	33.3
	4.73	3	5.9	5.9	39.2
	4.76	3	5.9	5.9	45.1
	4.88	3	5.9	5.9	51.0
	4.91	1	2.0	2.0	52.9
	4.94	1	2.0	2.0	54.9
	4.97	2	3.9	3.9	58.8
	5.00	4	7.8	7.8	66.7
	5.03	1	2.0	2.0	68.6
	5.06	1	2.0	2.0	70.6
	5.12	2	3.9	3.9	74.5
	5.15	2	3.9	3.9	78.4
	5.18	1	2.0	2.0	80.4
	5.24	2	3.9	3.9	84.3
	5.27	2	3.9	3.9	88.2
	5.30	1	2.0	2.0	90.2
	5.42	1	2.0	2.0	92.2
	5.48	1	2.0	2.0	94.1
	5.58	1	2.0	2.0	96.1
	6.18	1	2.0	2.0	98.0
	6.24	1	2.0	2.0	100.0
	Total	51	100.0	100.0	



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Appendix AH

Normality Test of Post ODI Data

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DATASET ACTIVATE DataSet3.
FREQUENCIES
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  /HISTOGRAM  NORMAL
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Frequencies

Statistics

mean

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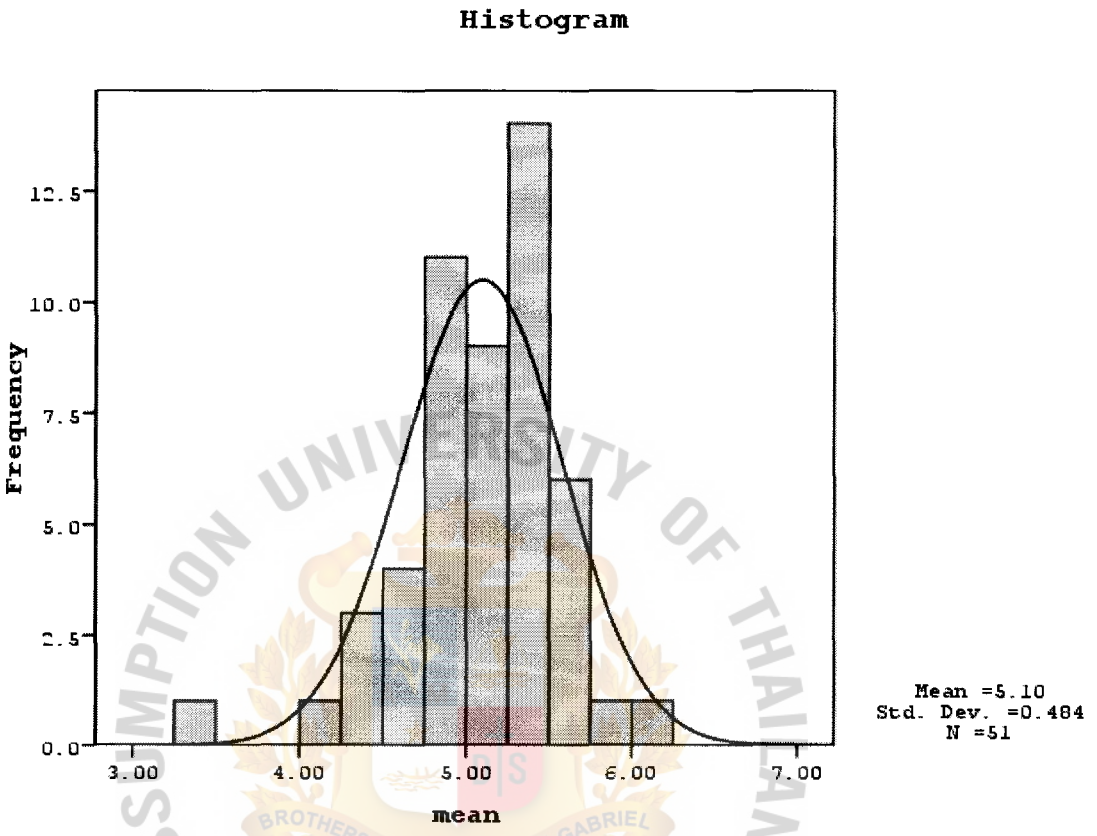
	Missing	0
Mean		5.0969
Std. Deviation		0.48424
Skewness		-0.828
Std. Error of Skewness		0.333

mean

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.39	1	2.0	2.0	2.0
	4.24	1	2.0	2.0	3.9
	4.30	1	2.0	2.0	5.9
	4.36	1	2.0	2.0	7.8
	4.39	1	2.0	2.0	9.8
	4.52	2	3.9	3.9	13.7
	4.58	1	2.0	2.0	15.7
	4.70	1	2.0	2.0	17.6
	4.79	4	7.8	7.8	25.5
	4.85	1	2.0	2.0	27.5
	4.88	1	2.0	2.0	29.4
	4.91	2	3.9	3.9	33.3
	4.94	3	5.9	5.9	39.2
	5.03	1	2.0	2.0	41.2
	5.06	2	3.9	3.9	45.1
	5.18	3	5.9	5.9	51.0
	5.21	3	5.9	5.9	56.9
	5.27	2	3.9	3.9	60.8
	5.33	2	3.9	3.9	64.7
	5.36	2	3.9	3.9	68.6
	5.39	1	2.0	2.0	70.6
	5.42	4	7.8	7.8	78.4
	5.45	2	3.9	3.9	82.4
	5.48	1	2.0	2.0	84.3
	5.52	1	2.0	2.0	86.3
	5.55	2	3.9	3.9	90.2
	5.61	1	2.0	2.0	92.2
	5.64	1	2.0	2.0	94.1
	5.73	1	2.0	2.0	96.1
	5.88	1	2.0	2.0	98.0
	6.21	1	2.0	2.0	100.0
	Total	51	100.0	100.0	



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Appendix AI

Critical Values of the t Distribution (Two-Tailed Test)

Table : Critical Values of the t Distribution (Two-Tailed Test or Two sided α)

Confidence Level	95%	99%
Two-Tailed Test (α2)	.05	.01
Degrees of Freedom		
1	12.71	63.66
2	4.303	9.925
3	3.182	5.841
4	2.776	4.604
5	2.571	4.032
6	2.447	3.707
7	2.365	3.499
8	2.306	3.355
9	2.262	3.25
10	2.228	3.169
11	2.201	3.106
12	2.179	3.055
13	2.16	3.012
14	2.145	2.977
15	2.131	2.947
16	2.12	2.921
17	2.11	2.898
18	2.101	2.878
19	2.093	2.861
20	2.086	2.845
50	2.009	2.678

Source: http://math.bu.edu/people/ginovyan/TableB3.pdf, retrieved May 16, 2010

Appendix AJ

Paired Samples Statistics

		Mean	Sample Size	Standard Deviation	Standard Error Mean
Employees inter-functional coordination	Pre-ODI	4.8569	51	0.63095	0.88350
	Post-ODI	5.2255	51	0.43120	0.06038
Employees synergy	Pre-ODI	5.0226	51	0.66569	0.09322
	Post-ODI	5.2640	51	0.64290	0.90020
Innovation in organization	Pre-ODI	4.6706	51	0.63602	0.08906
	Post-ODI	4.7510	51	0.62845	0.08800

Paired Samples Correlations

		Sample Size	Correlation	Significant
Employees inter-functional coordination	Pre & Post ODI	51	0.505	0.000
Employees synergy	Pre & Post ODI	51	0.715	0.000
Innovation in organization	Pre & Post ODI	51	0.782	0.000

Paired Samples Correlations

		Paired Differences					t	Degree of Freedom	Significant (2-tailed)
		Mean	Standard Deviation	Standard Error Mean	95% Confidence Interval of the Difference				
					Upper	Lower			
Employees inter-functional coordination	Pre & Post ODI	-0.36863	0.55623	0.07789	-0.52507	-0.21218	-4.733	50	0.000
Employees synergy	Pre & Post ODI	-0.24133	0.49447	0.06924	-0.38040	-0.10226	-3.485	50	0.001
Innovation in organization	Pre & Post ODI	-0.08039	0.41714	0.05841	-0.19772	0.03693	-1.376	50	0.175

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Appendix AK

Pair t-Test Relate to Sub-Variables of Employee inter-functional Coordination

Paired Samples Statistics

		Mean	Sample Size	Standard Deviation	Standard Error Mean
Shared vision and goal	Pre-ODI	14.8431	51	2.55635	.35796
	Post-ODI	16.1961	51	1.58770	.22232
Clarity of roles and functions	Pre-ODI	14.4510	51	2.93471	.41094
	Post-ODI	15.0784	51	1.75320	.24550
Team reward system	Pre-ODI	19.2745	51	3.54450	.49632
	Post-ODI	20.9804	51	2.89476	.40535

Paired Samples Correlations

		Sample Size	Correlation	Significant
Shared vision and goal	Pre & Post ODI	51	.126	.378
Clarity of roles and functions	Pre & Post ODI	51	.401	.004
Team reward system	Pre & Post ODI	51	.702	.000

Paired Samples Correlations

		Paired Differences					t	Degree of Freedom	Significant (2-tailed)
		Mean	Standard Deviation	Standard Error Mean	95% Confidence Interval				
					Upper	Lower			
Shared vision and goal	Pre & Post ODI	1.35290	2.83424	.39687	2.1501	.-5558	-3.409	50	.001
Clarity of roles and functions	Pre & Post ODI	-.6275	2.74926	.38497	1.4007	.1458	-1.630	50	.109
Team reward system	Pre & Post ODI	1.70590	2.55573	.35787	2.4247	.9871	-4.767	50	.000

Appendix AL

Pair t-Test Relate to Sub-Variables of Employee synergy

Paired Samples Statistics

		Mean	Sample Size	Standard Deviation	Standard Error Mean
Sense of team identity	Pre-ODI	21.6471	51	4.43993	.62171
	Post-ODI	22.0000	51	3.46987	.48588
Unity in diversity	Pre-ODI	25.5686	51	3.83278	.53670
	Post-ODI	26.2941	51	3.81206	.53379
Collaboration	Pre-ODI	18.0784	51	4.30276	.60251
	Post-ODI	20.1373	51	3.32277	.46528

Paired Samples Correlations

		Sample Size	Correlation	Significant
Sense of team identity	Pre & Post ODI	51	.862	.000
Unity in diversity	Pre & Post ODI	51	.775	.000
Collaboration	Pre & Post ODI	51	.534	.000

Paired Samples Correlations

		Paired Differences					t	Degree of Freedom	Significant (2-tailed)
		Mean	Standard Deviation	Standard Error Mean	95% Confidence Interval				
					Upper	Lower			
Sense of team identity	Pre & Post ODI	-.3529	2.27880	.31910	-.9939	.2880	1.106	50	.274
Unity in diversity	Pre & Post ODI	-.7255	2.56186	.35873	1.4460	-.0050	-2.022	50	.049
Collaboration	Pre & Post ODI	2.0588	3.78107	.52946	3.1223	-.9954	-3.889	50	.000

Appendix AM

Pair t-Test Relate to Sub-Variables of Innovation in Organization

Paired Samples Statistics

		Mean	Sample Size	Standard Deviation	Standard Error Mean
Creativity	Pre-ODI	13.7843	51	2.97533	.41663
	Post-ODI	14.1569	51	2.58745	.36232
Strategic perspective	Pre-ODI	15.2941	51	2.67054	.37395
	Post-ODI	15.3725	51	2.53741	.35531
Implementation	Pre-ODI	17.6275	51	4.09371	.57323
	Post-ODI	17.9804	51	3.59717	.50370

Paired Samples Correlations

		Sample Size	Correlation	Significant
Creativity	Pre & Post ODI	51	.742	.000
Strategic perspective	Pre & Post ODI	51	.863	.000
Implementation	Pre & Post ODI	51	.855	.000

Paired Samples Correlations

		Paired Differences					t	Degree of Freedom	Significant (2-tailed)
		Mean	Standard Deviation	Standard Error Mean	95% Confidence Interval				
					Upper	Lower			
Creativity	Pre & Post ODI	-.3725	2.02939	.28417	-.9433	.1982	-1.311	50	.196
Strategic perspective	Pre & Post ODI	-.0784	1.36884	.19168	-.4634	.3066	-.409	50	.684
Implementation	Pre & Post ODI	-.3529	2.12437	.29747	-.9504	.2445	-1.186	50	.241

Appendix AN

Regression Analysis

Relationship between Independent Variables and Dependent Variable

Variables Entered/Removed (b)

Model	Variables Entered	Variables Removed	Method
1	Employee inter-functional coordination	.	Enter
	Employee synergy		

a All requested variables entered.

b Dependent variable: innovation in organization

Model Summary

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.436(a)	0.19	0.157	3.8307

a Predictors: (constant), employee inter-functional coordination, employee synergy

Anova (b)

Model		Sum of Squares	df	Mean Square	F	Significant
1	Regression	165.673	2	82.837	5.645	.006 (a)
	Residual	704.366	48	14.674		
	Total	870.039	50			

Coefficients (a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Significant
		B	Std. Error	Beta		
1	(Constant)	-0.422	0.655		-0.643	0.523
	Employee inter-functional coordination	0.189	0.109	0.253	1.732	0.09
	Employee synergy	0.168	0.095	0.259	1.775	0.082

a Dependent Variable: Innovation in organization

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