



**Factors Affecting Innovation Practice- A Case of
Wonji/shoa Sugar Factory**

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF MASTERS IN
BUSINESS ADMINISTRATION (MBA)**

BY: TAREKEGN ASSEFA

ADVISOR: PROF. SAE. JOONG YONG

**ADAMA SCIENCE & TECHNOLOGY UNIVERSITY SCHOOL OF
BUSINESS & ECONOMICS**

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LETTER OF CERTIFICATION

This is to certify that Tarekegn Assefa has carried out his project work on the topic of “Factors Affecting Innovation Practice- a Case of Wonji/shoa Sugar Factory” under my supervision. This work is original in its nature and it is suitable for Submission in partial fulfillment of the requirement for the award of Masters Degree in Business Administration (MBA).

PROF. SAE. JOONG YONG
(Advisor)

DECLARATION

I, Tarekegn Assefa, declare that this project work entitled “Factors Affecting Innovation Practice- a Case of Wonji/shoa Sugar Factory” is my own original work. I have carried out it independently with the guidance and suggestions of the research advisor. And it has not been presented in Adama Science & Technology University or any other University and that all sources of materials used for the study have been duly acknowledged.

Declared by:

Name_____

Sign_____

Date_____

Confirmed by Advisor:

Name_____

Sign_____

Date_____

Acknowledgment

The generous cooperation of many people has contributed for the success and completion of this project work. My special gratitude goes to my advisor prof. sae. joong yong for his commitment on this project at each stage and for making valuable comments and suggestions. His cooperation and friendliness is highly appreciated.

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Questionnaire and interview guide

This questionnaire is designed to solicit information for purely academic purpose. This is to enable the researcher complete the thesis in partial fulfillment of the requirement for the award of Master of business Administration(MBA): **Factors Affecting Innovation Practice- A Case of Wonji/shoa Sugar Factory.**

Note:

- ☀ No need to write your name.
- ☀ Respond to the statement/question in this questionnaire based on your current level of knowledge and expertise.
- ☀ As you read each statement tick a box that correspond to your level of agreement.
- ☀ All information given would be treated with most confidentiality and only uses for academic purpose. **Thank you.**

Section I

Basic demographic data (please tick where appropriate)

1. Sex Male ☐ Female ☐

2. Age A) 18 – 30 ☐
 B) 31 – 40 ☐
 C) 41 – 50 ☐
 D) 51 – 60 ☐

3. Educational Back ground ☐
 A. Elementary ☐
 B. High School ☐
 C. Diploma ☐

- D. First Digree
- E. Master Degree & above

4. How long you have served in the Sugar factory? (in Year)

- A. 0 – 5
- B. 6 – 10
- C. 11 – 15
- D. Above 15

5. Department currently working

- | | | | |
|-----------------------|----------------------|------------------------|----------------------|
| A. Land Preparation | <input type="text"/> | F. Processing | <input type="text"/> |
| B. Plantation | <input type="text"/> | G. ICT | <input type="text"/> |
| C. Irrigation & Civil | <input type="text"/> | H. Service Givers | <input type="text"/> |
| D. Harvesting | <input type="text"/> | I. Support Departments | <input type="text"/> |
| E. Technical | <input type="text"/> | J. Others | <input type="text"/> |

II Information Related to Research Questions.

1. How do you think the degree of importance of each factor for the innovation?

Items	Not Important	Little Important	Moderately Important	Very Important	Extremely Important
A. Commitment of management					
B. Evaluation & Reward					
C. Motivation of employee					
D. Training and Implementation of					

philosophy of kaizen					
E. Effective leadership style					
F. Good facilitation & supply of input					
G. Structural Changes					

2. To what extent the innovative practice in your organization meet the following objectives.

Items	Very Largely Meet	Largely Meet	Moderately Meet	Little meet	Not at all Meet
A. To Assist Capacity Utilization and Full level operation					
B. To increase job satisfaction & Ownership					
C. To cope the change from old factory to new modern factory					
D. To Meet Time Schedule					
E. To Meet Quality Objectives					
F. To achieve cost saving strategy					

3. How do you think the degree of integration of Wonji/shoa's innovation practice with each strategies?

Items	Very well integrated	Well integrated	Moderately integrated	Little integrated	Not at all integrated
A. Employee Reward & motivation					

B. Business competencies					
C. Strategic planing and objectives					
D. Organizational change					
E. Employees needs and Requirements					

4. The Innovation practice in your team or department

Items	Very often	Often	Sometimes	Less often	Not at All
A. Are anticipated or proactive to meet future strategic objective					
B. Are reactive to overcome present performance short coming					
C. Are Reactive to the philosophy of kaizen					

5. How often the following orgaizational sources of Knowledge is Created and used by employess during innovation Practice?

Items	Very often	Often	sometimes	Less often	Not at All
A. Knowledge Creation & Capture					
B. Knowledge Organization & Categorization					
C. Knowledge Absorption & Re-use					
D. Knowledge Distribution & access					

6. How do you rate the level of contribution in practice of innovations among the different Hierarchy of management and employees?

Items	Very significantly contribute	significantly contribute	Moderately contribute	Little contribute	Not at all contribute
A. Top Management					
B. Middle Level Management					
C. Lower Level Management					
D. Front Line Employees					

7. How much does the factory reward appropriately the innovators to recognize their effort and motivate for further results?

Items	Very much appropriate	Very appropriate	Moderately appropriate	Little appropriately	Not at all appropriate
A. Individual Innovators					
B. Group/team level innovators					
C. Facilitators					
D. Department ,Division or firm Level re-cognition					

8. How often the following Criteria is helpful to identify best innovators for reward?

Items	Very often	Often	sometimes	Less often	Not at All
A. Increased Profitablity					
B. Improved internal process					
C. Gain in cost savings					
D. Improved Wastage /out put					
E. Ease of application & customer satisfaction					

9. What do you think the degree of significance of the factors to the obstacles/challenges of innovation practice in the organization?

Items	Very much significant	very significant	Somewhat significant	Little significant	Not at all significant
A. Inconsistency in motivation & Reward					
B. Limitations in Management follow up					
C. Lack of skill and Knowledge for high level innovation					
D. Absence of Continuous training & reward					
E. Low level of facility					

10. How often the following data collection method for Innovation analysis are used ?

Items	Very often	Often	sometimes	Less often	Not at All
A. Survey approach					
B. Cost-Benefit approach					
C. Obseration method					
D. Interview					
E. key performance Drivers Analysis					

11. Do you agree that the data collection method and analysis is accurate and reliable?

Items	Extremely reliable	Very reriable	Moderately reliable	Little reliable	Not at all reliable
A. Survey approach					
B. Cost-Benefit approach					
C. Obseration method					
D. Interview					
E. key performance Drivers Analysis					

12. How do you think the importance of the factor for future innovation practices?

Items	Extremely important	Very important	Moderately important	Little important	Not at all important
A. Commitment of management at all level					
B. External environment & market					
C. Availability & Capability of Resource					
D. Reward administration &					

Motivation					
E. Training & Data management					

Section II

I. Interview guide /Semi - Structured interview/

1. What do you know about innovation Practice in wonji/shoa sugar factory?
2. What are the strength and short comings associated with innovation in the Factory?
3. How do you see the effectiveness & Limitations of reward policy and practice of the factory with regard to innovation?
4. What is the reason for the stagnant or inconsistent practice of innovations?
5. How do you understand the benefits and importance of innovation to you & Your organization?
6. How do you see & relate innovation practices before and after implementation of Kaizen?
7. Any Opinion with regard to innovations in wssf.

THANK YOU !!!

I. Abstract

In recent years the innovation paradigm has gained great attention in research on innovation and strategic management. Current research indicates that many firms are gaining their competitive advantage from the technologies in the innovation which is basic source of competition and development. Therefore strategically managing the innovation practice and knowing the influencing factors should lead to better business performance and success. To this effect, the study investigates organizational innovation capabilities and limitations, trend in innovation practice, factors influencing innovations, and forward the recommendations based on the result of findings in case of wonji/shoa sugar factory. In addition the study will investigate the reason behind the inconsistent results of creativity and innovation practice in wonji/shoa sugar factory.

1. Introduction:

1.1. Back ground of the study

The term innovation has been used to describe both the process that uses new knowledge, technologies and the processes to generate new products as well as new or improved products themselves (PORTER, 1990). The difference from invention is that innovation also involves the factor of commercialization, determining the company success or failure. This appears to be the crucial point over the last few decades, as innovation has been identified by several nations or intra-nation organizations as the major factor of economic growth and wealth (EU, 1995; OECD,

1997a, b). Organizations which operate in today markets, where global competition, rapid technological advances and resource insufficiency are pressing issues, must innovate in order to grow, to be effective and even to survive. Despite this need, after forty years of innovation studies, managerial best practices related to innovation are still very vague, as confirmed by Rothwell (1992) which highlights the lack of precise prescription for successful innovation. The innovation process is still poorly understood (COOMBS et al., 1996) and the current state of the literature contributes little to improve the understanding of the phenomenon (BECHEICH et al., 2006).

Innovation is a new idea, more effective device or process. Innovation can be viewed as the application of better solutions that meet new requirements, in articulated needs, or existing market needs. This is accomplished through more effective products, processes, services, technologies, or ideas that are readily available to markets, governments and society. The term innovation can be defined as something original and more effective and, as a consequence, new, that "breaks into" the market or society. While a novel device is often described as an innovation, in economics, management science, and other fields of practice and analysis innovation is generally considered to be a process that brings together various novel ideas in a way that they have an impact on society.

Innovation differs from invention in that innovation refers to the use of a better and, as a result, novel idea or method, whereas invention refers more directly to the creation of the idea or method itself. Innovation differs from improvement in that innovation refers to the notion of doing something different rather than doing the same thing better. The idea that innovation leads to positive economic performance has become a sort of truism in recent years. However, empirical evidence showing that innovating organizations and countries outperform non-innovating ones remains scant and scattered. In many ways, the jury is still out. First of all, there is still little

agreement about what 'performance' means. The range of indicators adopted in the literature varies widely: financial performance, market shares, new products introduced into the market, patents, GDP growth, and so on. Second, the time lag between innovative efforts and performance is often so large, and so industry specific, that it remains just very hard to produce reliable estimates. Third, it is still unclear at what level of analysis one should go looking for positive economic performance. Studies exist that look at the relationship between performance and innovation at the level of design teams, projects, firms, networks, industries, and countries. This paper aims at critically looking at ways of effectively managing innovation practice and proposes useful suggestion towards effective implementation and management of the practice in wonji/shoa sugar factory. Secondly the study will contribute to identify trends and ways of managing innovation towards competitive advantages and higher business performance. To this effect the study will emphasize the role that innovative knowledge, spillovers and human capital play in fostering economic growth and learning.

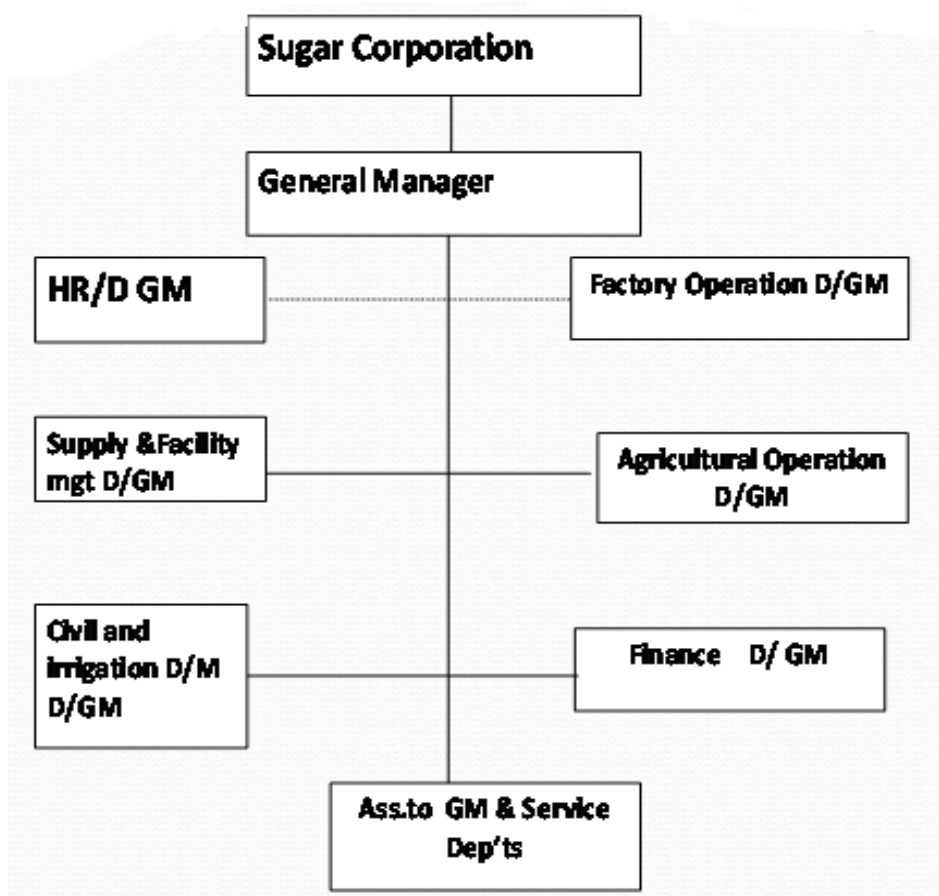
1.2. Company profile

1.2.1. Vision, Mission and Values of the Company

The vision of wssf is stated as "Create sustainable and competitive sugar industry in the world. " and the Mission According to the Council of Ministries Regulation No. 192/2003, some of the Missions of Wonji/Shoa Sugar Factory are the Meet sugar demands in the local and take significant share in the world market, Utilize by products of sugar...Such as cogeneration, Create job opportunity to the nation, Realize technology transfer in the sugar sector, Develop other crops abreast with sugar cane plantation and Carry out scientific, industrial and agricultural research and survey to enhance productivity and continuous expansions of the operation. The

values of wssf are Promote good governance and ethical practices, Effective interpersonal relationships, building team spirit and collaboration with stake holders, develop individual and organizational learning to enhance business success and encourage ownership mentality that motivates innovation and creativity.

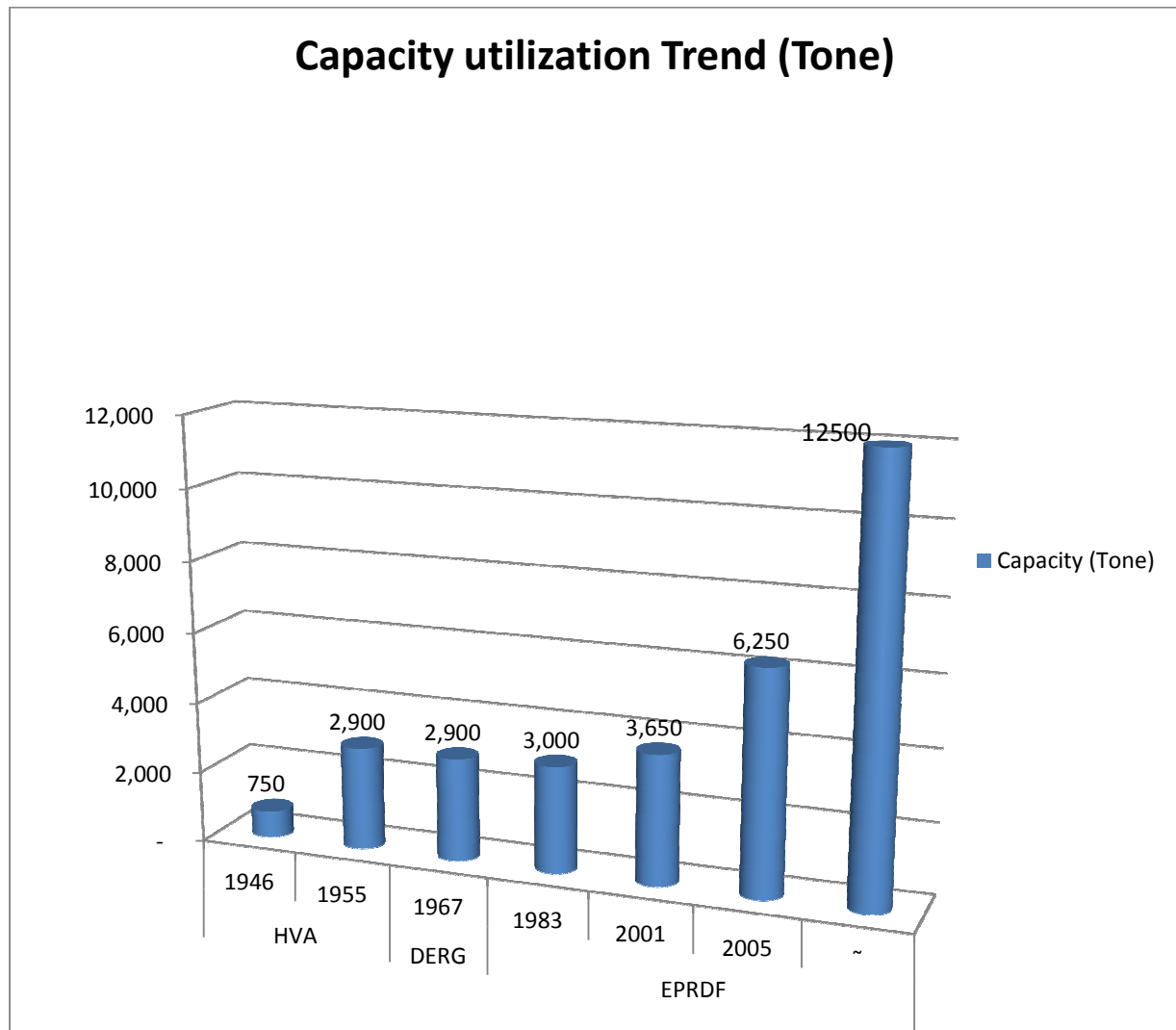
1.2.2. High Level Organizational Structure of WSSF



1.2.3. *Historical Background*

Commercial sugar cane plantation in Ethiopia was started in 1951 by a Dutch Company called HVA. Wonji Sugar Factory is the first sugar producing factory in

Ethiopia. In 1954 the Wonji Factory had the first milling season and produced 16,000 tons of white sugar. In order to meet the rising demand of sugar in the local market another 1600 hectare of land was granted to the HVA Company by the Ethiopian Government. On the 10th of November 1962, Shoa sugar factory was officially inaugurated and began to produce sugar. The Wonji confectionary was initially built with the objective of advertising sugar in the local market. But later the factory began production of Desta Sweet which was the popular brand in the country. At that time, there was again shortage of cane supply to satisfy the combined daily cane crushing requirement of both sugar factories. Consequently peasants, residing around the factory were mobilized and formed out grower's farmers sugar cane producers' cooperatives. The combined Cane Crushing and sugar production Capacity of the two factories managed under wssf is about 2850 Ton per day and 3000 Qts of sugar per day consequently. The Factory has also 8 months of milling season and and 4 months of maintenance. To meet both the domestic demand and reach international market and thereby increase the national revenue from the sugar sector, the Federal Democratic Republic of Ethiopia (FDRE) has a plan to increase its sugar production. To put this strategic national sugar sector plan in to effect, expansion projects were commenced across the existing sugar factories and new projects. The new technology and high capacity factory come to existence by substituting the two old and small scale factories by the end of 2010/11 with Cane crushing capacity of 6250 TCD and potentially expandable up to 12000 TCD in association with Cogeneration facility of 31.15 MW (of which 20 MW will be exported to the national grid), expandable to 64 MW. (Source:-profile manual of wssf)



1.2.4 WSSF and KAIZEN

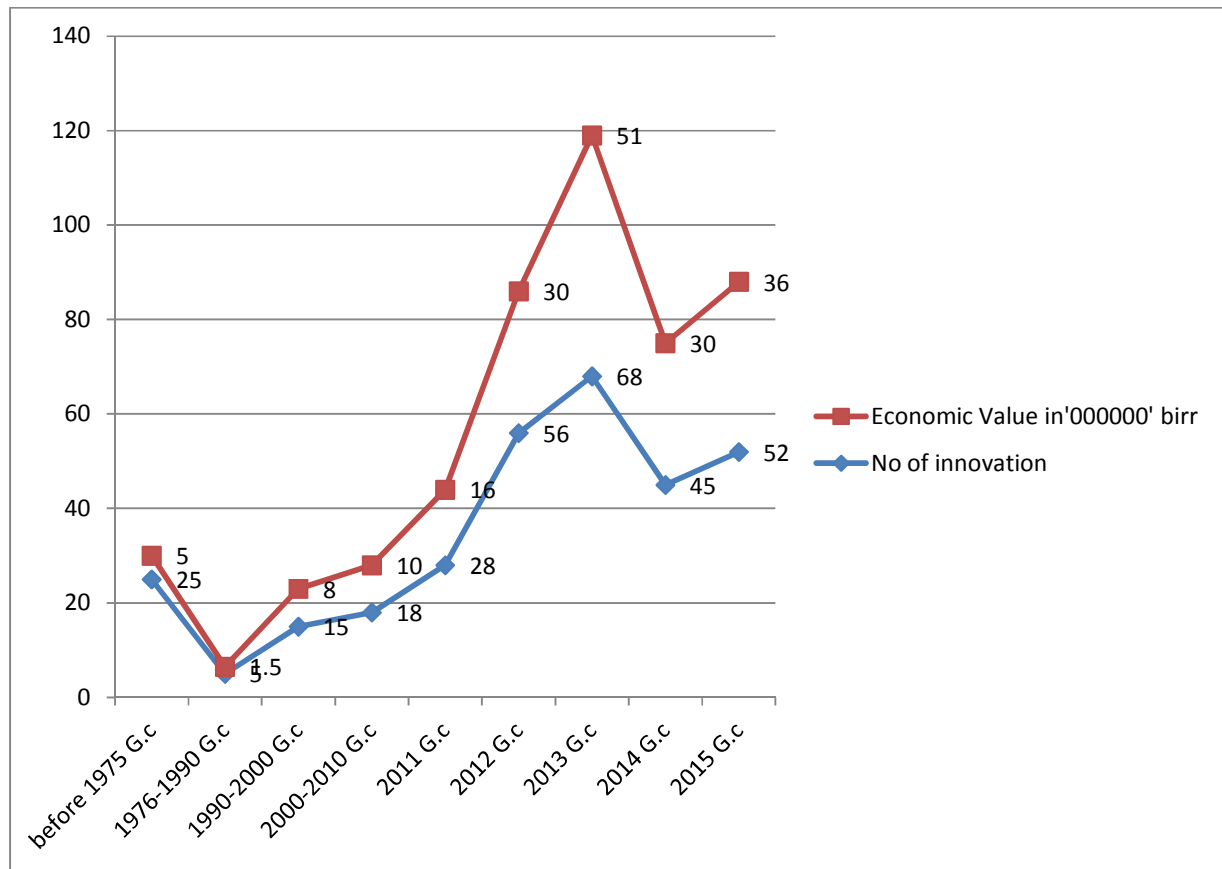
Kaizen is a unifying thread running through the philosophy, the systems and problem solving tools developed in Japan over the last 30 years. It is not more than 3 years since Kaizen transplanted in Ethiopia albeit a tremendous change we witnessed in attitudinal changes and avoidance of wastes, innovations and so on. WSSF introduced and implemented Kaizen in 2011/2012 production year. It was new and challenging till every single soul understood it. However, later on Kaizen become the overriding concepts behind good management. There are five underpinning principles to kaizen.

The first is a heavy reliance on teamwork, in which everyone's opinion is valued and considered, involving their active participation in the form of suggestions aimed at continuous improvement, even when a system appears to be functioning adequately. Kaizen philosophy recognizes that there is always room for improvement. Finally, the system uses quality circles, groups of workers who meet and work together to solve problems and come up with innovative changes. The focus on human resources building within Kaizen strategy has anticipated the post-modern developments in the field of management and competitive advantage. Kaizen is a system that involves every employee - from upper management to the cleaning crew. Kaizen involves setting standards and then continually improving those standards. To support the higher standards, Kaizen also involves providing the training, materials and supervision that is needed for employees to achieve higher standards and maintain their ability to meet those standards on an on-going basis which benefit wssf at large. (Source:-Profile manual of wssf)

1.2.5. WSSF and Innovations:-

History of wssf shows that innovation practice is started during HVA with development of Optimization projects which is designed to expand the factories capacity without major investment and within short period of time to meet the increased demand of sugar in the local and international market. The practice in the factory expands to fabrication workshops and field machinery maintenance service which gradually evolved to design changes, new idea generations, a number of modification and improvements. The innovation activities of wssf are not revolutionary/radical rather a type of learning from doing for continuous improvements and idea generation. The innovation practices also vary based on the ideologies of different period governance and focus given to the sector. During the

Derg regime less attention was given to the industries and many industries were nationalized by the government which lead to the remarkable decline in innovation due the evacuation of experienced Dutch employee's from the Country. After the down fall of Derg regime the innovation practice again started with the objective of import substitution to produce the required spare parts within the country. The government establishes the kaizen institute to lead the philosophy of kaizen though provision of training, monitoring, evaluation and Reward systems. In 2011/12 the sugar corporation decided implementation of kaizen philosophy to enhance the performance of industries through continuous improvement and innovations to compete in the national and international market. Gradually Tremendous numbers of Innovation and modification works highly benefit wssf in attaining Objective of full scale operation and overcome the existing problems. More over Cost savings attained from innovations, avoiding and minimizing wastages are clearly feasible results of innovation. By the year 2012/13 wssf win the prize golden cup award at country level given by his Excellency Deputy prime minister Demeke mekonen to recognize the best practice in innovations which gradually consider wssf as area of best practice visited by almost all known companies and many higher government officials. The following graph shows the trends of different period innovation practice of wssf in terms of quantity and economic value.



(Source:-profile manual of wssf)

1.3. Statement of Problem:

- The Study aims at investigating
 - ❖ What are the key factors influencing innovation practice in wonji shoa sugar factory?
 - ❖ How does the organization manage innovation practice and measure its impact on overall performance?
 - ❖ What are the successes, challenges, and limitations associated with innovation practice in the organization?

1.4. Objectives of Study:

The overall purpose of this research is to investigate reasons behind the effective innovative practice and failures to maintain the consistency of the practice in cases of wonji/shoa sugar factory. The study also examines the barriers to innovations in order to get insights into the factors affecting the successful practice of innovation in wonji/shoa sugar factory. The ultimate purpose of the study is to imply ways of effectively managing innovation practice to maintain the consistency of the good practice. Unlike many researchers of innovation which focus on survey of the practice at country level, industry level and worldwide practice, my study particularly focus on the following specific objectives.

- ◆ Identify the causes for effective innovation practices and reasons for inconsistency to maintain the practice in the case of wonji/shoa sugar factory.*
- ◆ To investigate the administration aspect of innovation at different management hierarchies to establish dynamics of the relationships that can help the organization leverage their innovative capacity for business performance.*
- ◆ To analyze the factors affecting the innovation practice and recommend possible solutions for the successful practice in the organization.*

1.5. Significance of Study:

The studies provide some insights into the factors associated with organizational innovations and help to know barriers or limitations negatively impacting on the innovation practice. Availability of complete information about the factors positively or negatively affecting innovations will help the management and individuals to capitalize on opportunities for innovation and partnering that will emerge as source

of markets and asset capital which in turn lead to wealth maximization and higher performance.

1.6. Scope of the study

The study was limited to organizational innovation and focus on influencing factors as well as organization's tendency towards innovation. It is difficult to study about innovation practice and identify the influencing factors at sugar corporation level due to differences in leadership, motivation, geographic location, culture, infrastructural facility and other factors.

2. Literature review

2.1. The definition and types of innovation

Innovation is the process of translating an idea or invention into a good or service that creates value or for which customers will pay. To be called an innovation, an idea must be replicable at an economical cost and must satisfy a specific need. Innovation involves deliberate application of information, imagination and initiative in deriving greater or different values from resources, and includes all processes by which new ideas are generated and converted into useful products. In business, innovation often results when ideas are applied by the company in order to further satisfy the needs and expectations of the customers. In a social context, innovation helps create new methods for alliance creation, joint venturing, flexible work hours, and creation of buyers' purchasing power. Innovation is synonymous with risk-taking and organizations that create revolutionary products or technologies take on the greatest risk because they create new markets. Imitators take less risk because they

will start with an innovator's product and take a more effective approach. Peter F. Drucker (2006).

The key definitions underpinning the phenomenon of innovation have been reviewed. It is common to think of innovations as occurring only in high-tech environment. However, this notion is ill conceived. Innovation in products, processes and services can appear in all sectors of economic activity spanning from traditional to high-tech, public to market consisting incremental, radical, process upgrading, quality inspection system and Product prototyping on computers. Organizational implementation of quality circles, teleconference meeting, and many other innovations are the result of combinations of existing knowledge, and new uses of creativity in product and process design. Nevertheless technology is increasingly becoming indispensable in terms of developing, manufacturing and distributing products and services. (Higgins, J. M. (1995)

2.2. Innovation and competitiveness

Innovation is the key to competitive advantage in a highly turbulent environment. It is a major driving force for economic growth of nation states. The ability to innovate has direct at the Graduate School of Business, Stanford University. Software here is used to describe a procedure or know-how of executing a task. The values created by innovations are often manifested in new ways of doing things or new products and processes that contribute to wealth. When we consider a firm as a bundle of resources, skills and competencies, then the effect of innovation is to transform a firm's inner capabilities, making it more adaptive, better able to learn, to exploit new ideas. This enhanced flexibility is crucial in the face of changing market conditions. Thus innovation enhances competitiveness of firms. (Peter F. Drucker 2006)

In the organizational context, innovation may be linked to positive changes in efficiency, productivity, quality, competitiveness, and market share. However, recent research findings highlight the complementary role of organizational culture in enabling organizations to translate innovative activity into tangible performance improvements. Organizations can also improve profits and performance by providing work groups opportunities and resources to innovate, in addition to employee's core job tasks. Peter Drucker wrote that "Innovation is the specific function of entrepreneurship, whether in an existing business, a public service institution, or a new venture started by a lone individual in the family kitchen. It is the means by which the entrepreneur either creates new wealth-producing resources or endows existing resources with enhanced potential for creating wealth. (Peter F. Drucker 2006)

According to Clayton Christensen "Disruptive Innovation" is the key to future success in business. The organization requires a proper structure in order to retain competitive advantage. It is necessary to create and nurture an environment of innovation. Executives and managers need to break away from traditional ways of thinking and use change to their advantage. It is a time of risk but even greater opportunity. The world of work is changing with the increase in the use of technology and both companies and businesses are becoming increasingly competitive. (Clayton Christensen (2003)

2.3 Sources of innovation

There are several sources of innovation. It can occur as a result of a focus effort by a range of different agents, by chance, or as a result of a major system failure. According to Peter F. Drucker the general sources of innovations are different changes in industry structure, in market structure, in local and global demographics, in human perception, mood and meaning, in the amount of already available scientific

knowledge, etc. In the simplest linear model of innovation the traditionally recognized source is manufacturer innovation. This is where an agent (person or business) innovates in order to sell the innovation. (Peter F. Drucker 2006)

Another source of innovation, only now becoming widely recognized, is end-user innovation. This is where an agent (person or company) develops an innovation for their own (personal or in-house) use because existing products do not meet their needs. MIT economist Eric von Hippel has identified end-user innovation as, by far, the most important and critical in his classic book on the subject, Sources of Innovation. The robotics engineer Joseph F. Engelberger asserts that innovations require only three things:

- 1. A recognized need,*
- 2. Competent people with relevant technology, and*
- 3. Financial support.*

However, innovation processes usually involve: identifying customer needs, macro and micro trends, developing competences, and finding financial support. Programs of organizational innovation are typically tightly linked to organizational goals and objectives, to the business plan, and to market competitive positioning. One driver for innovation programs in corporations is to achieve growth objectives. As Davila et al. (2006) notes, "Companies cannot grow through cost reduction and reengineering alone... Innovation is the key element in providing aggressive top-line growth and for increasing bottom-line results". One survey across a large number of manufacturing and services organizations found, ranked in decreasing order of popularity, that systematic programs of organizational innovation are most frequently driven by:- Improved quality, Creation of new markets, Extension of the product range, Reduced labor costs, Improved production processes, Reduced materials, Reduced

environmental damage, Replacement of products/services, Reduced energy consumption, Conformance to regulations. (Joseph F. Engelberger (2009))

2.4. Diffusion of innovation

Without diffusion, innovation will not benefit society at large. “Diffusion is the way in which innovations spread, through market or non-market channels. Without Diffusion, an innovation will have no economic impact.” OECD (1992:10). Advancement in products and processes are crucial for productivity improvement. The innovating firms are not the only ones that benefit from their innovations. When innovations are diffused, they contribute to higher productivity and higher standards of living for an economy as a whole. Therefore diffusion of innovations has an immediate impact on the well being of an economy. Diffusion of innovation is favorable given that it helps disseminate new techniques, products and services to the wider economy thus allowing the full benefit to be gained. The importance of diffusion has attracted vast amount of research interest in this area and there is a well-developed body of research looking at diffusion of innovations (see Rogers, 1983). The main elements of the diffusion process are the innovation itself, the population of potential adopters, their decision-making process and the flow of information concerning the innovation between the manufacturers and the adopters. The key parameter used in the discussion of diffusion process is the rate of diffusion. This is the proportion of users who adopt the innovation against time. The rate of diffusion is different for different products. In general, the greater the improvement that the innovation brings to the users, the greater the rate of diffusion. The lower the cost of the innovation the faster the rate of diffusion. Non-economic factors like the compatibility of innovation with current values and past experiences will also affect the diffusion rate. From a political perspective, large firms may influence the diffusion of an innovation by influencing consumer response through advertising or sales promotion. Hence the diffusion of

innovations is influenced by the economic, social and political characteristics of a society. (OECD (1992:10))

2.5. Barriers to innovation

The external barriers include the lack of infrastructure, deficiencies in education and training systems, inappropriate legislation, an overall neglect and misuse of talents in society. Some major internal barriers include rigid organizational arrangements and procedures, hierarchical and formal communication structures, conservatism, conformity and lack of vision, resistance to change, and lack of motivation and risk-avoiding attitudes. The factors perceived as restrictive to product/process innovation include: fear of imitation, high costs of innovation, insufficient government support, lack of information, lack of qualified personnel, no market or insufficient knowledge about markets, and shortage of support/infrastructure in the organization. (Attewell, P. (2003))

2.6. The dimensions of innovative capacity

2.6.1. Internal processes

- **Knowledge Creation and Capture:** - Deals with generating idea, either by nurturing employees to create it or by acquiring it from outside. Uses high-touch approaches such as creating a sharing culture, urging people to meet either in person or electronically, and encouraging innovations
- **Knowledge Organization and Categorization:** - information is often handled by creating best practices.
- **Knowledge Absorption and Reuse:** - Deals with getting information knowhow into people's heads where it can be enhanced and reused. It uses high-touch approaches focusing on nurturing interactions among people,

recognizing the knowledge brokers who exist in companies, and supporting communities of practice.

- **Knowledge Distribution and Access:-** *emphasizes both “pushing” information or knowledge out to users (distribution) and accommodating users who “pull” information to themselves (access). It uses high-tech approaches, such as implementing networks and networking tools to access human and structural capital. The outcomes of these four stages create human capital, Structural capital, and Customer capital. (Herbig, P. and Dunphy, S. M. (2001),)*

2.6.2. External environment

➤ Customers, competitors, suppliers:

Innovative companies are proactive in their approach towards Customer satisfaction which is their key performance driver. They know their markets and benchmark performance against competitors and the world’s best in class regardless of functions. These innovative companies develop strong supplier relationship and are actively involved in partnership sourcing. Strategic partners Innovative companies seek active collaboration with other companies and academia to maximize knowledge and minimize risk.

2.7. Innovation rankings

The International Innovation Index is one of many research studies that try to build a ranking of countries related to innovation. Other indexes are the Innovations Indicator, Innovation Union Scoreboard, Global Innovation Index, EIU Innovation Ranking, BCG International Innovation Index, Global Competitiveness Report, World Competitiveness Scoreboard, Index. Published in 2015, the most recent and up-to-date

research was conducted by Bloomberg in their Bloomberg Innovation Index. The six focused areas making up the index are research and development, manufacturing, high-tech companies, post secondary education and research personnel and patents. The following is a ranking of the top ten countries in the 2015 Bloomberg Innovation Index:

S.N	Country	Rank	S.N	Country	Rank
1	 South Korea	1st	6	 United States	6th
2	 Japan	2nd	7	 Sweden	7th
3	 Germany	3rd	8	 Singapore	8th
4	 Finland	4th	9	 France	9th
5	 Israel	5th	10	 United Kingdom	10th

According to "all Africa .com." African Countries are Ranked in innovation by the year 2013 as follows.

S.N	Country	Score	Rank in Africa	Rank in the world
1	Mauritius	38.00	1st	53
2	South Africa	37.60	2nd	58
3	Uganda	31.20	3rd	89
4	Botswana	31.10	4th	91
5	Morocco	30.90	5th	92
6	Ghana	30.60	6th	94
7	Senegal	30.50	7th	96
8	Kenya	30.30	8th	99
9	Capeverde	29.70	9th	103
10	Swaziland	29.60	10th	104

2.8 Future of innovation

The main problem with measuring innovation stems from the fact that it is a multi-dimensional phenomenon. Also innovation is context-specific making comparability of data is difficult. An innovation in paper-clip design versus an innovation in microprocessor design has very different economic impact, but they both may be recorded as an innovation count. The most widely recorded source of innovation is R&D. Some of these have not been measured and some are not measurable. Given the gaps in current knowledge about the innovation process, a simple and uncontroversial measure of innovation is hard to conceptualize. Hence we conclude that there is no one best way to measure the performance of innovation. However the world wide trend of innovation shows increasing trend of the practice and great attention to the issue.

3. Methodology:

3.1 Research Design

To achieve the aforementioned objectives, the study will employ descriptive type in which both quantitative and qualitative data analysis was used to produce richer and more complete information.

3.2 Sources of Data

Primary source of data was the main source of information which considers subject study of the population under consideration (employees of the organization). Primary data was collected from managerial and non managerial employees of wonji/shoa sugar factory. To Increase the objectivity of the study, secondary source of data was also used from various sources, such as researcher's information,

international journal articles, electronic Medias, and organizational manuals were used to explore base line information.

3.3 Methods of Data Collection

Secondary data should be collected through reviewing important literatures and articles, wssf reports of different years, and other factory documents. Questionnaire and semi-structured interview were the tools to collect the data from employees of the organization. Questionnaire was used as the main instruments in collecting the relevant information to achieve the objective of the study. Based on the research proposal guide a questionnaire was used because of its simplicity and convenient to reach large number of employees at different sites and it's appropriate to get relatively uniform data regarding the research problem with the given resources. Semi-structured interview was used to fill the gap of questionnaire and manage variability of responses due to the difference in back ground of the population. It was also used to briefly understand the relations ships among variables and know attitude of the respondents. The Semi-structured interview was conducted by purposively selecting key informants to provide insights to the administration aspects of innovation especially those are operating by forming themselves in groups; teams and individual levels. The Likertscale format was used in the design of questionnaire to enable respondents to understand and answer the questions easily.

3.4 Sample size and Sampling Method

According to the organization structure of wssf there were 2250 permanent employees working in six divisions and 28 departments. For valid investigation and control over the variables, employees of out growers operations, expansion project employees and manual labourer employees are excluded from the target population because thus activities are managed under contractual bases, partially out sourced and

administered with mutual memorandum of agreement with 3rd party. Moreover there was no visible practice of innovation in these areas. There for total target population was limited 1150 permanent employees directly managed by wssf according to the proposal guide which comprises five division and 24 departments from which sample was taken or considered as target population. Accordingly, from the total population the sample size was considered to be 150 to which questionnaire was distributed and collected. To collect valid data from informant's purposive Sampling techniques was used to choose sample informants/respondents. Highly creative individuals and their immediate supervisors and supporters were taken as critical informants. Managerial employees at all levels were also the sources of information especially those who are close to the innovation practice. Accordingly, the questionnaire was distributed to 150 managerial and non managerial employees of wssf. However, from these distributed questionnaires, only 120 questionnaires were filled and returned back on time having 80 percent response rate.

3.5. Analysis of Data

The two main types of questions used as an instrument used to collect data through questionnaire are the demographic questions developed to gather information about respondent's gender, age, education qualification, year experience, working area and Basic research questions developed consisting 12 items in which 2 of them are concerning factors affecting innovation, 4 items are supportive to the factors of innovation, 3 items are about relationship of innovation with business performance and the rest 3 items are related to role of Knowledge and Information communication to the activities of innovation. The statements were phrased with a possible response continuum based on a Likert-style of five-point scale (1 strongly disagree to 5 strongly agree). In addition to these instruments the qualitative seven - question semi

structured interview was developed to critical respondents and to this effect 18 respondents were intervened and provide detail explanation during interview. After completion of the primary and secondary data collection, the data was presented and analyzed in a way to produce important information that can answer basic questions, ensure objectives of the study and also show future implications of the study. The responses of informants/respondents were presented and analyzed both quantitatively and qualitatively through tables, Graphs, Average/mean, percentages, standard Deviation and statements. Before analysis of the data, primary sources of collected data were checked for accuracy, utility and completeness, compatibility with the purpose of the study. The data collected through interview was also analyzed qualitatively by supporting the quantitative analysis gathered through questionnaire.

4. Results and Discussion

This session deals with presentations, discussions and interpretations of the data collected through questionnaire and interview. Questionnaires and interviews were the tools selected and used throughout the analysis of the data using Statistical analysis (figures, tables, frequency, percentage, mean and standard deviation). To collect the data through questionnaire, 150 questionnaires were distributed to managerial & non-managerial employees of wssf and 80% of questionnaires were returned back with completely filled and significant responses. The returned questionnaires are 120 in number which have 80% response rates and hoped sufficient to analyze the data with it. In addition to questionnaires, interviews were conducted with some selected employees and managers.

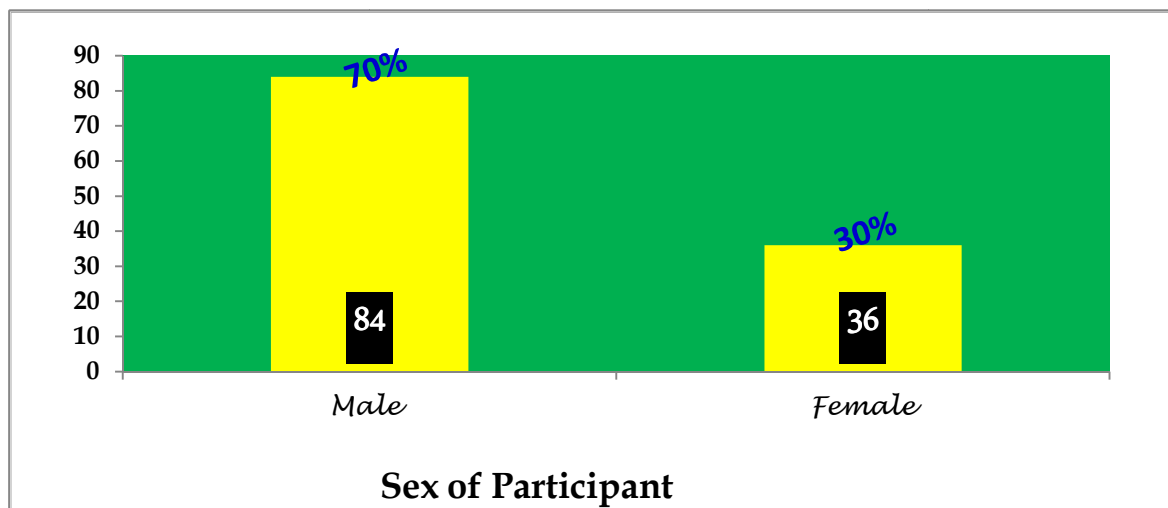
All expected factors for the activity of the innovations were asked using interview and likert scale through which respondent shown their level of agreement. The identified factors were expected that their limitation can affect the normal operation of the

business and growth. In the Analysis of table's relationship of the dependent and independent variables were determined by considering 95% confidence level and within 5% standard error. Therefore significance level (upper and lower bound of the mean) was determined by considering 5% significance level to the right and left side of the mean. The negative sign shown in the standard deviation column indicate only the left side distribution of respondents (distance) from the mean.

I. Demographic Factors

4.1 Gender of Participants

Figure 4.1



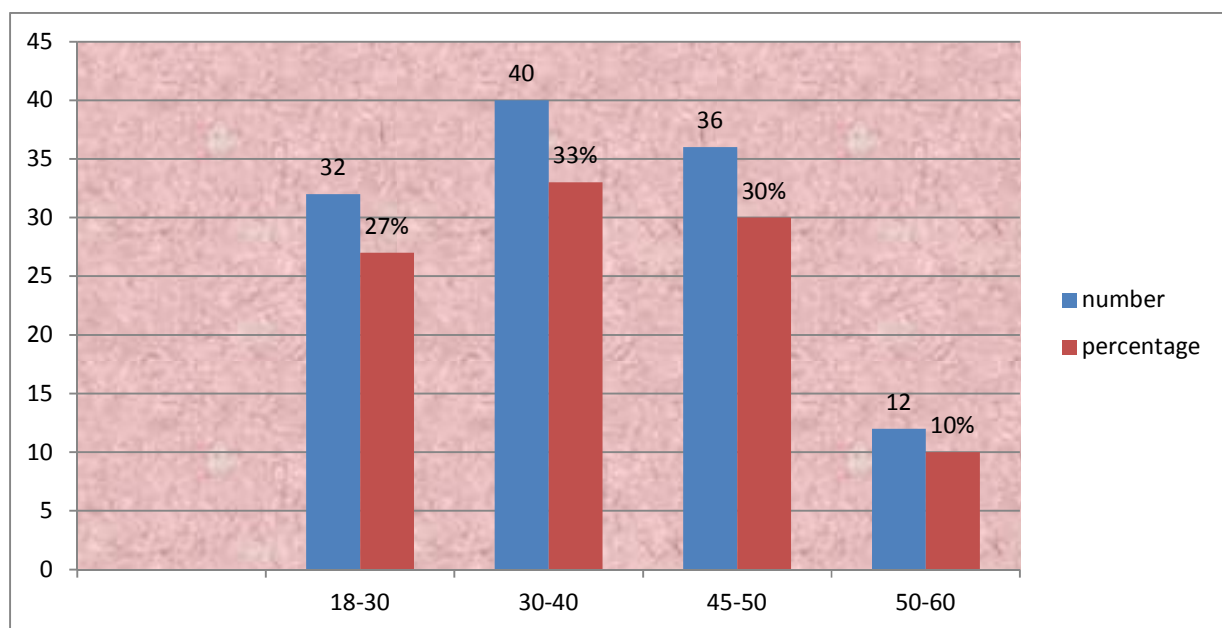
(Source: Researcher's Survey)

Like any other organization, in wssf both females and males are involved in innovation practice; work at different positions as experts, managers or employees. However the percentage of their involvement in all level positions and practice of innovation is not equal. Most of the employment opportunities of wssf is found in agricultural operation which is inconvenient to females according to culture of Ethiopia. Depending on Figure 4.1, 70 percent of total sample are males and the rest 30 percent are females. This percentage is relatively higher than the total

representation of females in wssf which is 18 percent of the total employees. Generally it is difficult to compare the difference in innovation practice between males and females due to difference in involvement, data recording problems, team work and other factors.

4.2 Age of Participants

Figure 4.2



(Source: Researcher's Survey)

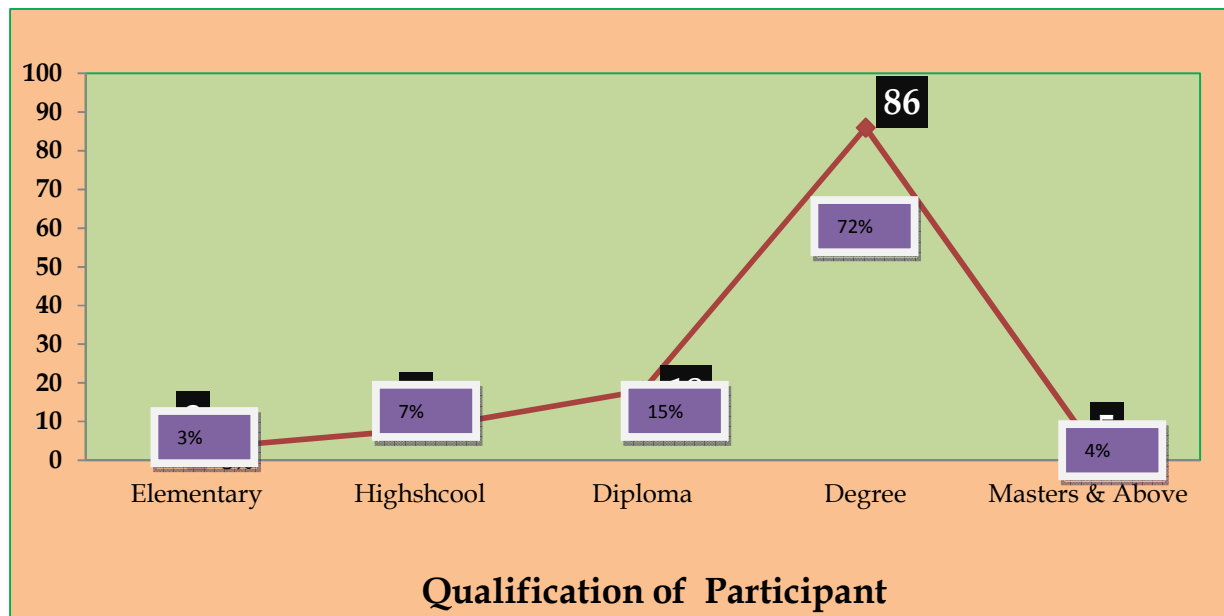
Age interval of Participants

Different individuals with different age groups can join similar work environment. However, in some activities individuals can have or not equal chance to participate because of their age. According to Ethiopian labour law individual with the age below 14 cannot be employed sector of the activities while those between 14 to 18 are recommended to be assigned on light duties without overtime work and with 7 hrs working time per day. Some posts in wssf require several years of experience which provide better opportunities to adults as indicated in Figure 4.2 which shows 22.7%

young, 33.3%, adolescent, 36% adult and 12% old employees are working in the organization.

4.3 Educational Qualification of Participants

Figure 4.3



(Source: Researcher's Survey)

In Ethiopia, during past times it was believed that individuals working with MSEs are poor and have no chance for education because of their family background. In most cases individuals who migrated from rural to urban area are without educational background and forced to work under the control of many owners to work blamed activities for owners' children.

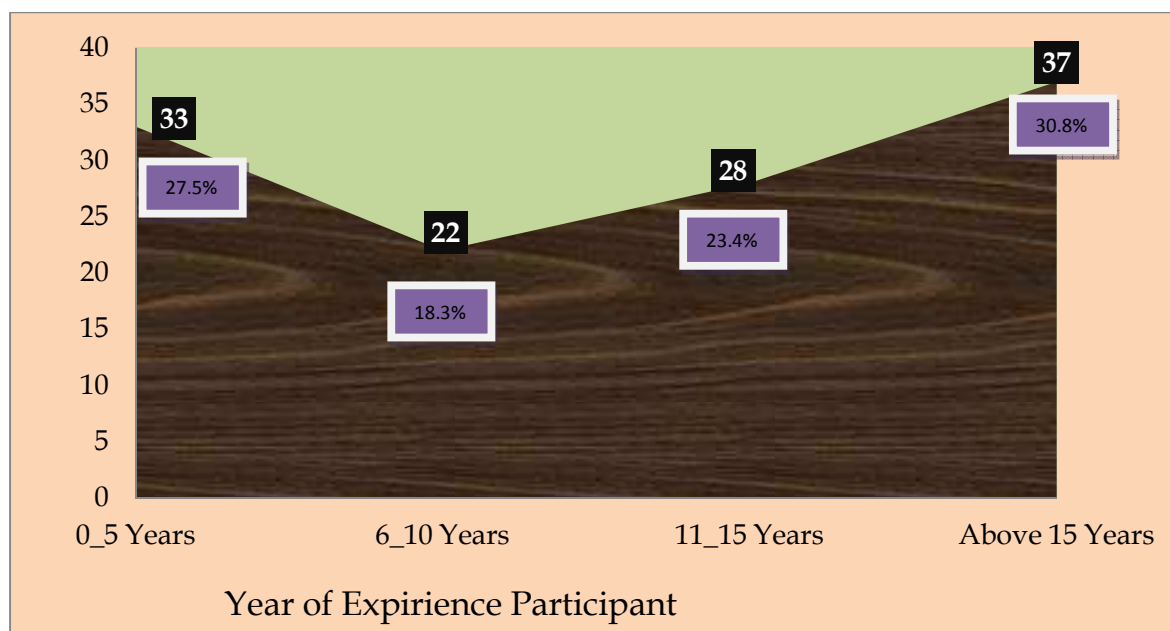
As Figure 4.3 indicates regarding to educational qualification, 3% of the respondents' are elementary, 7% of them are high school level, 15% are Diploma holders, 72% are degree, and 4% are masters & above. This figure indicates most participants are qualified professional individuals which can understand the subject under study and respond accurately to the success of research objectives. Most of the participants are individuals those who are graduated from different universities with different stream of profession which can foster the practice of innovation through synergy from cross

functional team. Most of the innovation activities are practiced by professional and semi-professional employees working directly on technical activities while facilitators and supervisory employees are less creative.

4.4 Year of Experience of Participants

As sex, age and educational qualification of individuals are different; individuals also differ in their work experience durations. Respondents were asked to indicate the experience year they have in business activities and the data collected shows on the following Figure 4.4.

Figure 4.4



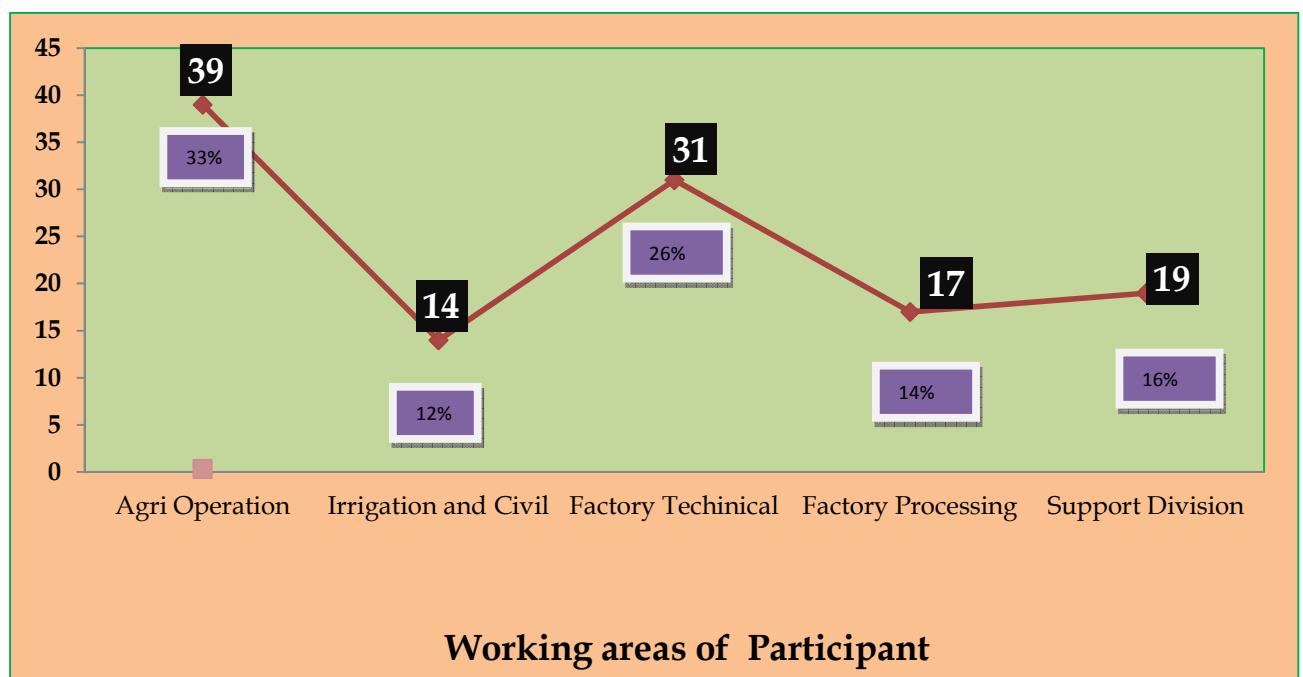
(Source: Researcher's Survey)

As graph 4.4 indicates 27.5% of the respondents surveyed have 0-5 years of experience, 18.3% of them have 6-10, 23.4% have 11-15 and 30.8% have more than 15 years of experience in the organization. Even though individuals can learn more from their experience, that can help them to innovate according the facilities in the

task environment, long time experience on specific posts sometimes lead to lose of motivation which in turn affect innovative capacity of the individuals. Despite this fact well experienced employees are more creative than fresh graduates and those with little work experience in the organization. Moreover many studies indicate that there is relationship between experience and innovation in organizations.

4.5 Working areas of participants

Figure 4.5



(Source: Researcher's Survey)

The above figure shows working areas of respondents constituting 33% from agricultural Operation, 12% from Irrigation & civil engineering, 26% from Factory technical, 14% Factory processing and 16% support departments. As indicated in the figure technical areas are more innovative than support services. Support services are well known for the creation of new software and system changes unlike the physical creativities in the technical operations.

II. Analysis of Factors Affecting Innovation

4.1 Factors influencing innovation

Table 4.1A

Question	N	S.A	A	N	D.A	S.D	Average /Mean	Correlation with innovation
		5	4	3	2	1		
Commitment of management	120	14	34	42	22	8	3.20	
Evaluation & Reward	120	28	56	25	8	3	3.82	Strong relationship
Motivation of employee	120	12	51	42	12	3	3.48	significant relation
Training and Implementation of philosophy of kaizen	120	28	56	21	11	4	3.78	Strong relationship
Effective leadership style	120	8	31	40	30	11	2.96	
Good facilitation & supply of input	120	18	48	32	14	8	3.45	significant relation
Structural Changes	120	12	24	31	47	6	2.91	
Average/Mean							3.37	

(Source: Researcher's Analysis)

Table 4.1B

Question	Mean	Standard Deviation	Standard error	95% Confidence Interval for Mean		Correlation with innovation
				Lower Bound	Lower Bound	
Commitment of management	3.20	-0.17	0.16	3.03	3.37	
Evaluation & Reward	3.82	0.45	0.19	3.65	3.99	Strong relationship
Motivation of employee	3.48	0.11	0.17	3.31	3.64	significant relation
Training and Implementation of philosophy of kaizen	3.78	0.41	0.19	3.61	3.94	Strong relationship
Effective leadership style	2.96	-0.41	0.15	2.79	3.13	
Good facilitation & supply of input	3.45	0.08	0.17	3.28	3.62	significant relation
Structural Changes	2.91	-0.46	0.15	2.74	3.08	
Average/Mean	3.37	0.00	0.17	3.20	3.54	

(Source: Researcher's Analysis)

4.2. Reasons to the obstacles/challenges of innovation practice in the Organization

Table 4.2A

Question	N	S.A	A	N	D.A	S.D	Average/Mea	Correlation with innovation
		5	4	3	2	1		
Inconsistency in motivation & Reward	120	29	40	38	10	3	3.68	Strong Relationship
Limitations in Management follow	120	13	42	46	13	6	3.36	
Lack of skill and Knowledge for high level innovation	120	24	44	29	16	7	3.52	
Absence of Continuous training & reward	120	43	52	15	8	2	4.05	Strong Relationship
Low level of facility	120	21	43	27	19	10	3.38	
Average/Mean							3.60	

(Source: Researcher's Analysis)

Table 4.2B

Question	Mean	Standard Deviation	Standard error	95% Confidence Interval for Mean		Correlation with innovation
				Lower Bound	Lower Bound	
Inconsistency in motivation & Reward	3.68	0.08	0.18	3.50	3.86	Strong Relationship
Limitations in Management follow up	3.36	-0.24	0.17	3.18	3.54	
Lack of skill and Knowledge for high level innovation	3.52	-0.08	0.18	3.34	3.70	
Absence of Continuous training & reward	4.05	0.45	0.20	3.87	4.23	Strong Relationship
Low level of facility	3.38	-0.22	0.17	3.20	3.56	
Average/Mean	3.60	0.00	0.18	3.42	3.78	

(Source: Researcher's Analysis)

4.3 Contribution to innovation among Hierarchy of management

Table 4.3A

Question	N	S.A	A	N	D.A	S.D	Average /Mean	Correlation with innovation
		5	4	3	2	1		
Top Management	120	13	35	29	23	20	2.98	Significant relationship
Middle Level Management	120	6	12	33	55	14	2.51	
Lower Level Management	120	4	8	42	55	11	2.49	Strong Relationship
Front Line Employees	120	32	48	25	13	2	3.79	
Average/Mean							2.94	

(Source: Researcher's Analysis)

Table 4.3B

Question	Mean	Standard Deviation	Standard error	95% Confidence Interval for Mean		Correlation with innovation
				Lower Bound	Lower Bound	
Top Management	2.98	0.04	0.15	2.84	3.13	significant relation
Middle Level Management	2.51	-0.44	0.13	2.36	2.66	
Lower Level Management	2.49	-0.45	0.12	2.34	2.64	significant relation
Front Line Employees	3.79	0.85	0.19	3.64	3.94	
Average/Mean	2.94	0.00	0.15	2.80	3.09	

(Source: Researcher's Analysis)

4.4 Appropriateness of Reward & Recognition to innovators

Table 4.4A

Question	N	S.A	A	N	D.A	S.D	Average /Mean	Correlation with innovation
		5	4	3	2	1		
Individual Innovators		7	18	27	50	18	2.55	
Group/team level innovators		22	34	43	15	6	3.43	strong relation
Facilitators		5	12	24	52	27	2.30	
Department ,Division or firm Level re-cognition		9	23	31	49	8	2.80	Significant relation
Average/Mean							2.77	

(Source: Researcher's Analysis)

Table 4.4B

Question	Mean	Standard Deviation	Standard error	95% Confidence Interval for Mean		Correlation with innovation
				Lower Bound	Lower Bound	
Individual Innovators	2.55	-0.22	0.13	2.41	2.69	
Group/team level innovators	3.43	0.66	0.17	3.29	3.56	strong relation
Facilitators	2.30	-0.47	0.12	2.16	2.44	
Department ,Division or firm Level re-cognition	2.80	0.03	0.14	2.66	2.94	Significant relation
Average/Mean	2.77	0.00	0.14	2.63	2.91	
	3.45					significant relation

(Source: Researcher's Analysis)

4.5. Criteria often used to identify best innovators for reward

Table 4.5A

Question	N	S.A	A	N	D.A	S.D	Average /Mean	Correlation with innovation
		5	4	3	2	1		
Increased Profitablity	120	16	39	37	21	7	3.30	Siginiticant relatio
Improved internal process	120	7	18	29	48	18	2.57	
Gain in cost savings	120	22	44	32	17	5	3.51	strong relation
Improved Wastage /out put	120	3	14	26	46	31	2.27	
Ease of application & customer satisfaction	120	1	6	25	66	22	2.15	
Average/Mean							2.76	

(Source: Researcher's Analysis)

Table 4.5B

Question	Mean	Standard Deviation	Standard error	95% Confidence Interval for Mean		Correlation with innovation
				Lower Bound	Lower Bound	
Increased Profitablity	3.30	0.54	0.17	3.16	3.44	Siginiticant relation
Improved internal process	2.57	-0.19	0.13	2.43	2.70	
Gain in cost savings	3.51	0.75	0.18	3.37	3.65	strong relation
Improved Wastage /out put	2.27	-0.49	0.11	2.13	2.40	
Ease of application & customer satisfaction	2.15	-0.61	0.11	2.01	2.29	
Average/Mean	2.76	0.00	0.14	2.62	2.90	

(Source: Researcher's Analysis)

4.6 Factors influencing future innovation practice

Table 4.6A

Question	N	S.A	A	N	D.A	S.D	Average /Mean	Correlation with innovation
		5	4	3	2	1		
Commitment of management at all level	120	25	49	34	11	1	3.72	strong relation
External environment & market	120	8	13	31	55	13	2.57	
Availability & Capability of Resource	120	6	16	37	52	9	2.65	
Reward administration & Motivation	120	29	46	29	12	4	3.70	strong relation
Training & Data management	120	34	48	26	10	2	3.85	strong relation
Average/Mean							3.30	

(Source: Researcher's Analysis)

Table 4.6B

Question	Mean	Standard Deviation	Standard error	95% Confidence Interval for Mean		Correlation with innovation
				Lower Bound	Lower Bound	
Commitment of management at all level	3.72	0.42	0.19	3.55	3.88	strong relation
External environment & market	2.57	-0.73	0.13	2.40	2.73	
Availability & Capability of Resource	2.65	-0.65	0.13	2.49	2.81	
Reward administration & Motivation	3.70	0.40	0.19	3.54	3.86	strong relation
Training & Data management	3.85	0.55	0.19	3.69	4.01	strong relation
Average/Mean	3.30	0.00	0.16	3.13	3.46	

(Source: Researcher's Analysis)

The data collected from the respondents shows that (with mean value of 3.82) the practice of innovation is majorly affected by reward and evaluation systems of the organization which greatly influence the motivation of employees (with mean value of 3.48) for innovations. Table 4.1A, B indicates implementation philosophy of kaizen and delivery of training has significant (3.78 mean value) contribution towards the success of innovations. However the data analysis in table 4.2A, B shows that continuity and sustainability of the practice is highly challenged by absence of continuous training and reward (with mean value 4.05) as well as inconsistency in motivation and reward (with mean value 3.68) plays significant role. Most of the respondents argue that team level reward system is mostly appropriate (with mean value 3.43) unlike the individual level (with mean value 2.55), department level (with mean value 2.80) and rewards to facilitators (with mean value 2.30) which are very inappropriate and with full of subjectivity. More over the respondent's data shows that there was limitation of middle level management support (with mean value 2.51) and follow up unlike the top level management (with mean value 2.98). Respondents strongly argue that innovation activities of wssf were highly contributed by front line employees (with mean value 3.79) of the organization. The respondent's data reveals that the criteria for the measurement of innovation is inappropriate and only focus on gain in cost savings (with mean value 3.51) which did not consider the non financial benefits in to consideration. Future innovation practice should focus on commitment of all level management (with mean value 3.72), careful data analysis and consistent reward administration (with mean value 3.70) as well as inconsistency with training and data management accuracy should be improved.

II. Knowledge communication and Data Management

4.1. Organizational knowledge used by Employees

Table 4.7A

Question	N	S.A	A	N	D.A	S.D	Average /Mean	Correlation with innovation
		5	4	3	2	1		
Knowledge Creation & Capture	120	32	54	20	10	4	3.83	strong relation
Knowledge Organization & Categorization	120	1	10	21	56	32	2.10	
Knowledge Absorption & Re-use	120	22	51	23	19	5	3.55	strong relation
Knowledge Distribution & access	120	0	6	22	62	30	2.03	
Average/Mean							2.88	

(Source: Researcher's Analysis)

Table 4.7B

Question	Mean	Standard Deviation	Standard error	95% Confidence Interval for Mean		Correlation with innovation
				Lower Bound	Lower Bound	
Knowledge Creation & Capture	3.83	0.95	0.19	3.69	3.98	strong relation
Knowledge Organization & Categorization	2.10	-0.78	0.11	1.96	2.24	
Knowledge Absorption & Re-use	3.55	0.67	0.18	3.41	3.69	strong relation
Knowledge Distribution & access	2.03	-0.85	0.10	1.89	2.18	
Average/Mean	2.88	0.00	0.14	2.74	3.02	

(Source: Researcher's Analysis)

4.2 Data collection method for Innovation analysis

Table 4.8A

Question	N	S.A	A	N	D.A	S.D	Average /Mean	Correlation with innovation
		5	4	3	2	1		
Survey approach	120	11	17	54	24	14	2.89	
Cost-Benefit approach	120	26	34	41	15	4	3.53	strong relation
Obseration method	120	22	36	43	12	7	3.45	strong relation
Interview	120	16	31	51	18	4	3.31	strong relation
key performance Drivers Analysis	120	1	4	11	67	37	1.88	
Average/Mean							3.01	

(Source: Researcher's Analysis)

Table 4.8B

Question	Mean	Standard Deviation	Standard error	95% Confidence Interval for Mean		Correlation with innovation
				Lower Bound	Lower Bound	
Survey approach	2.89	-0.12	0.14	2.74	3.04	
Cost-Benefit approach	3.53	0.52	0.18	3.37	3.68	strong relation
Obseration method	3.45	0.44	0.17	3.30	3.60	strong relation
Interview	3.31	0.30	0.17	3.16	3.46	strong relation
key performance Drivers Analysis	1.88	-1.14	0.09	1.72	2.03	
Average/Mean	3.01	0.00	0.15	2.86	3.16	

(Source: Researcher's Analysis)

4.3 Accuracy of data collection method for Innovation analysis

Table 4.9A

Question	N	S.A	A	N	D.A	S.D	Average /Mean	Correlation with innovation
		5	4	3	2	1		
Survey approach	120	12	16	51	26	15	2.87	
Cost-Benefit approach	120	25	29	45	16	5	3.44	strong relation
Obseration method	120	33	34	41	9	3	3.71	strong relation
Interview	120	13	36	48	17	6	3.28	signifincant relation
key performance Drivers Analysis	120	2	21	28	39	30	2.38	
Average/Mean							3.14	

(Source: Researcher's Analysis)

Table 4.9B

Question	Mean	Standard Deviation	Standard error	95% Confidence Interval for Mean		Correlation with innovation
				Lower Bound	Lower Bound	
Survey approach	2.87	-0.27	0.14	2.71	3.02	
Cost-Benefit approach	3.44	0.31	0.17	3.28	3.60	strong relation
Obseration method	3.71	0.57	0.19	3.55	3.87	strong relation
Interview	3.28	0.14	0.16	3.12	3.43	signifincant relation
key performance Drivers Analysis	2.38	-0.75	0.12	2.23	2.54	
Average/Mean	3.14	0.00	0.16	2.98	3.29	

(Source: Researcher's Analysis)

According to the Analysis of respondent's data, Knowledge creation and capture (with mean value 3.84) and Knowledge absorption and re-use (with mean value 3.55) are moderately practiced by wssf while knowledge Organization and categorization (with mean value 2.10) as well as Knowledge distribution and access (with mean value 2.03) are poorly practice by the organization. The data collection method used by wssf is mainly based on Observation, cost benefit approach and interview with low level of accuracy of data collection and analysis. The data collected through interview also confirms that knowledge organization and categorization as well as distribution and access were poorly administered by wssf. Most of the respondent's interview explains that there was serious problem to identify modification activities from real innovation, as well as difficulty in identifying original new idea innovators from imitators' and practitioners. Moreover uniformity in data collection and depth of analysis is very poor which lead to practice improper rewards to individual with very subjective criteria's.

III. Innovation Practice and Business performance

4.1 Objectives of innovation practice

Table 4.10A

Question	N	S.A	A	N	D.A	S.D	Average/Mean	Correlation with Performance
		5	4	3	2	1		
To Assist Capacity Utilization and Full level operation	120	12	43	32	24	9	3.21	
To increase job satisfaction & Ownership	120	10	15	44	39	12	2.77	
To cope the change from old factory to new modern factory	120	22	45	35	14	4	3.56	strong relation
To Meet Time Schedule	120	18	44	29	23	6	3.38	strong relation
To Meet Quality Objectives	120	5	20	39	48	8	2.72	
To achieve cost saving strategy	120	26	51	23	17	3	3.67	strong relation
Average/Mean							3.22	

(Source: Researcher's Analysis)

Table 4.10B

Question	Mean	Standard Deviation	Standard error	95% Confidence Interval for Mean		Correlation with innovation
				Lower Bound	Lower Bound	
To Assist Capacity Utilization and Full level operation	3.21	-0.01	0.16	3.05	3.37	
To increase job satisfaction & Ownership	2.77	-0.45	0.14	2.61	2.93	
To cope the change from old factory to new modern factory	3.56	0.34	0.18	3.40	3.72	strong relation
To Meet Time Schedule	3.38	0.16	0.17	3.21	3.54	strong relation
To Meet Quality Objectives	2.72	-0.50	0.14	2.56	2.88	
To achieve cost saving strategy	3.67	0.45	0.18	3.51	3.83	strong relation
Average/Mean	3.22	0.00	0.16	3.05	3.38	

(Source: Researcher's Analysis)

4.2. Degree of integration of f innovation practice with different strategies

Table 4.11A

Question	N	S.A	A	N	D.A	S.D	Average /Mean	Correlation with Performace
		5	4	3	2	1		
Employee Reward & motivation	120	11	28	37	34	10	2.97	
Business competencies	120	16	31	46	22	5	3.26	strong relation
Strategic planing and objectives	120	7	21	49	30	13	2.83	
Organizational change	120	22	41	36	18	3	3.51	strong relation
Employees needs and Requirements	120	12	26	37	40	5	3.00	
Average/Mean							3.11	

(Source: Researcher's Analysis)

Table 4.11B

Question	Mean	Standard Deviation	Standard error	95% Confidence Interval for Mean		Correlation with innovation
				Lower Bound	Lower Bound	
Employee Reward & motivation	2.97	-0.15	0.15	2.81	3.12	
Business competencies	3.26	0.15	0.16	3.10	3.41	strong relation
Strategic planing and objectives	2.83	-0.29	0.14	2.67	2.98	
Organizational change	3.51	0.40	0.18	3.35	3.66	strong relation
Employees needs and Requirements	3.00	-0.11	0.15	2.84	3.16	
Average/Mean	3.11	0.00	0.16	2.96	3.27	

(Source: Researcher's Analysis)

4.3. Aim of innovation Practice

Table 4.12A

Question	N	S.A	A	N	D.A	S.D	Average/	Correlation with
		5	4	3	2	1	Mean	
Are anticipated or proactive to meet future strategic objective	120	4	16	26	51	23	2.39	
Are reactive to overcome present performance short coming	120	21	39	41	13	6	3.47	strong relation
Are Reactive to the philosophy of kaizen	120	42	36	27	13	2	3.86	strong relation
Average/Mean							3.24	

(Source: Researcher's Analysis)

Table 4.12B

Question	Mean	Standard Deviation	Standard error	95% Confidence Interval for Mean		Correlation with innovation
				Lower Bound	Lower Bound	
Are anticipated or proactive to meet future strategic objective	2.39	-0.85	0.12	2.23	2.55	
Are reactive to overcome present performance short coming	3.47	0.23	0.17	3.30	3.63	strong relation
Are Reactive to the philosophy of kaizen	3.86	0.62	0.19	3.70	4.02	strong relation
Average/Mean	3.24	0.00	0.16	3.08	3.40	

(Source: Researcher's Analysis)

Innovation is the key to competitive advantage in today's turbulent environment which is a major driving force for economic growth of nation. To this objective the data collected from respondents implies that the objective of innovation is not integrated with strategic planning objective (with mean value 2.83). These perceptions of the respondents were justified by inconsistency in reward and motivation (with mean value 2.97), failure to plan ahead of time and organize data to scale up the best

practice. However most of the respondents agree with 3.51 mean score said that the innovation practice plays important role for organizational change and those with mean value 3.26 moderately agreed that the innovative activities have important contribution to the competitiveness of the organization. Most of the respondents with mean score value 3.86 strongly agree that the philosophy of kaizen has strong relationship with innovation. Significant number of respondents (with mean value 3.47) also agrees that the innovation activities support the present performance shortcomings. The values created by innovators were often manifested in new ways of doing things, inner capabilities, making it more adaptive and exploiting new ideas. This enhanced flexibility in the face of changing market conditions. Thus the practice of innovation in wssf clearly enhances competitiveness of the organization in terms of efficiency and productivity. There was also a growing awareness and concern about the need for effective management of innovation by top management while the initiation and readiness in the middle management to support was with low level of commitment and motivation. However, the Organizations improve efficiency and performance without providing work groups with facilities, opportunities and sufficient resources to innovate.

5. Conclusion and Suggestion

5.1 Conclusion

Generally the respondent's data analysis shows that philosophy of kaizen and training, Reward and recognition given to first phase innovators and commitment in top level management were factors positively affecting the good practice of innovation while inconsistency in reward and recognition and absence of continuous training, limitation in middle level management support and follow up as well as poor data

collection accuracy, Analysis, and criteria for reward negatively contribute to the inconsistent practice of innovations.

Most of the respondents argue that the data collection, Recording, organizing, analysis and accesses should be improved and supported by database management systems to internally utilize from the inventory of knowledge with proper policy guidelines . Respondents also justify those problems associated with poor data administration significantly affect moral of employees and in turn the consistency in activities of innovation in the organization.

The innovation practice with in wssf has no significant integration with strategic objective of the organization. Therefore it is difficult to measure the effectiveness of the innovation activities. However the innovation practices in wssf visibly increase the performance and efficiency of the operation with inconsistent performance trend. The successful transition from two old and small scale factories to one modern and high capacity factory was highly assisted by innovational activities. There was also remarkable achievement in cost savings and capacity utilization which has significant contribution to competitiveness and business performance. The nature of recent innovational practice in wssf was the result reaction to the implementation of kaizen as management tool to change. The Respondents data also indicate that commitment of all level management and proper motivation of innovators has significant impact on success of innovation and similarly for competitiveness to business performance.

Finally In addition to difficulty during data collections & lack of organized information from wssf, studies on innovations are mostly carried out in closed manner which limit the transparency of information and diffusion of the results for economic development and access to the researchers. Therefore, the results cannot be taken as uniform to generalize for all sugar factories in Ethiopia. The instruments were developed by the researchers based on the literature & limited to descriptive statistics

which lead to the need of more statistical tests in order to establish a more robust validity and reliability. Thus, the instruments could be further refined to more closely capture each of the problem areas identified in the literature. Replication of this study using larger samples, broader geographic, longitudinal nationwide study is suggested for cross validation purposes.

5.2 Suggestion

Based on the findings, the following points are suggested for the successful and consistent practice of innovation in cases wssf.

- ◆ There should be clear policy guidelines to identify innovators diffuse and utilize the innovative ideas in the organization, across industries and country economic development as whole.*
- ◆ The implementation of philosophy of kaizen is highly contributing factor for the success of innovation practice through changing employee morale , attitude and ownership by initiating team level (QCC) practice which empower the front level employees as problem identifiers' and part of problem solvers. Therefore wssf has to strengthen the practice of philosophy of kaizen as management tool (continuous improvement) by assuring fair equitable, consistent reward and recognition systems.*
- ◆ There should be continuous training and motivation to employees for the consistency and high level innovations based on detail need and data analysis.*
- ◆ The level of data collection, Recording, Organizing, analysis and access practiced by wssf shows poor administration of data which significantly affect employee's motivation and innovation practice in the organization. Hence the data management condition should be improved and supported by database*

management systems to internally utilize from the inventory of knowledge and sustain practice of innovations.

- ◆ *The innovation practice of the organization should be integrated with the strategic objectives of the organization to lead the practice strategically and measure level of effectiveness and contribution to the factory and economy as whole.*
- ◆ *Lastly there should be commitment of all level management for effective and efficient practice of innovation and growth in business performance.*

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