Achieving National Defense Strategy through Balanced Score Card (BSC): A Catharsis of Defense Services’ Core Functionalities

Submitted by

Muhammad Arif
Registration No. 1031110
Management Science

Supervised by

Dr. Mustaghis – Ur -Rehman

A dissertation submitted in fulfillment of the requirement for the degree of
Doctor of Philosophy

Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology
2018
Abstract

In the corporate world Balanced Score Card (BSC) as management tool is very aptly being utilized for maintaining and updating Business Organization, introduced to rest of the world by two Harvard based scholars; Norton and Kaplan in 1996. However, the potential as well as its feasibility for defense services has not yet been well established; except for US military claiming to have earned Hall of Fame award for successful implementation of BSC. The Balanced Scorecard system, tries to transpose vision and the strategy of organization into such a comprehensive system of indicators which at the same time also defines the strategic framework of performance assessment and management. It tries to establish a balance between e.g four different perspectives: Financial, Customer, Internal Business Processes, and Learning and Growth in case of corporate management. At the same time it also establishes a link between strategy and operative management.

This unique empirical study has been undertaken, to carry out a thorough catharsis of core functionalities of Pakistan Defence Forces to explore and recommend relevant core management perspectives as underlying foundation stone on the basis of which, BSC for respective force i.e. Army, Navy and Air force can be developed. With this scope in mind pertinent research objectives were set aside for this study. To achieve these research objectives, this study after an extensive literature research developed a conceptual model of proposed BSC perspectives, Based on sound reasoning embedded in Resource Based Theory. In the light of basic conceptual model, various hypotheses were formulated for the verification of model through triangulation using qualitative and quantitative data.

Firstly qualitative testing of the study based on in-depth interviews was undertaken employing cross case analysis. The converging themes and views of the interview cases vindicating various hypotheses were classified in separate groups. Many insightful facets came to light most importantly the possible challenges to be faced while adopting BSC as a management tool have been documented as management implications.

To further verify the converging themes of the interview cases classified in separate groups according to their support/leaning for the various hypotheses established during qualitative analysis, quantitative testing of the conceptual model was undertaken. To employ quantitative testing of the model, a cross-sectional primary data was gathered from target population which consisted of officers of the rank of Colonel and above in all three armed services of Pakistan. The fitness of conceptual model and confirmation of hypothesis was carried out employing simple and multiple regression modeling using computer based SPSS software. In the wake of quantitative analysis, it emerged that, Purpose of Defense Forces, Resources, Enabling Processes and Building for Future are the predictors of Achievement of National Defence Objectives. Purpose of Defense Forces, Resources, Enabling Processes and Building for Future being core functionalities have been recommended as the perspectives of BSC for Pakistan Defense Services. The quantitative testing also brought to light two other important predictors of Dependent Variable (Achievement of National Defence Objectives).i.e. Leadership and Management as Moderating Variable, whereas, Creation of Positive Synergy as Intervening variable.

Being a unique study of its nature it has made useful contribution to the existing body of knowledge about the Defense Forces management, which includes most fundamentally statistical research settings drawn from resource based theory and extensive literature research satisfies all conditions with a desired level of fit to data. Basically this study has used Resource based theory and its causal framework to gain a better understanding of the predictors of Achievement of National Defence Objectives as result of overall functioning of Defense Services. Major contribution of study is the conceptual framework and its robustness that has been well tested both through quantitative as well qualitative testing. The findings of this study need to be thought
through carefully with certain degree of caution while applying it in geographical areas other than Pakistan, as this being unique empirical attempt of its nature within Pakistan. However, for other nations a various range of factors or exogenous factors might inherently affect the results. This also invites the future researchers as to how the predictors of this research can be incorporated in the conceptual models of other management settings.
Chapter I

Introduction

1. Overview

The very purpose of the existence of a defence force is to provide security to a state from external and internal threats, thereby facilitating the government to achieve its planned national aims and objectives having direct bearing on the prosperity and well being of the subjects of the state i.e. the people.

It is but logical that any defence force of its salt during peace time should ensure highest state of preparedness prior seeking any military adventure both as an initiative or to encounter any foreign aggression as well as, an internal turmoil or natural calamity, as propounded by Sun Tzu about 2000 year ago.

"Thus it is that in war the victorious strategist only seeks battle after the victory is won, whereas, he who is destined to defeat first fights and afterwards looks for victory".

Sun Tzu

Same view on preparedness for war was further supplemented by Holy Quran about 1400 year ago in Chapter 8, Surat Al–Anfal as follows:

“And prepare against them whatever you are able of power and of steeds of war by which you may terrify the enemies of Allah and your enemies and others beside them whom you do not know but whom Allah knows. And whatever you spend in the cause of Allah will be fully repaid to you, and you will not be wronged”.

Al–Quran.

To achieve above mentioned national security ends, states/nations provide means in the shape of various resources to the defence services. Perhaps every nation gives almost top priority to this fundamental obligation; negating at times vital national development and peoples’ welfare projects. However, no compromise is made and no stone is left unturned in meeting the national defence needs. It is, therefore, mandatory upon the National Defence Leader to make a judicious, intelligent, proficient and most economic use of state’s hard earned resources to derive best possible value exercising best possible management practices to achieve grand national strategic defence objectives. In nut shell the achievement of strategic ends by a military has been summarized by Field Marshal Viscount Alanbrooke as follows:
“Military strategy is to derive from the policy aim of a series of military objectives as to the military requirements they create and the preconditions which the achievement of each is likely to necessitate to measure available and potential resources against the requirements and to chart from this process a coherent pattern of priority of action”.

Field Marshal Viscount Alanbrooke

Given this importance and vitality of resources, the roots of this dissertation are imbedded in the resource based theory also known as resource based view (RBV), which professes that resources and their skilful application by any organization is the ultimate determinant of competitive advantage as well as performance of that organization (Barney 1991) and (Peteraf and Barney 2003).

Various management tools are employed for the organizational development and the defense forces organizations are no exception. At the academic and practical level, corporate/business organizations have gone a long way to find how to make their organizations sustainable and develop proportionately. Though Pakistan defence forces also have stringent type of Organization Management systems since independence in 1947, but somehow, these are less inclined towards testing and employing modern methods and technology for the effectiveness and development of management methodologies. In the corporate world Balanced Score Card (BSC) is one such tool, which is very aptly being utilized for maintaining and updating Business Organization, the potential as well as feasibility of the same for defence services especially in the US has been established very well and the US defense services have earned the Hall of Fame award for implementing BSC.

The BSC system, tries to transpose the vision and the strategy of the organization into such a comprehensive system of indicators which at the same time also defines the strategic framework of performance assessment and management. It tries to establish a balance between four different perspectives: Financial, Customer, Internal Business Processes, and Learning and Growth. At the same time it also establishes a link between strategy and operative management. It sets forth in a comprehensive report the most important factors for an organization (Kaplan & Norton, 1999). It however, needs to be firmly comprehended that BSC is a concept rather than being an algorithm and should not be taken as a readymade prescription or antidote for all sorts of organization’s management problems. BSC, therefore, should not be adopted as a straight jacket and needs to be suitably modified keeping in mind the core vision and mission of an organization. Especially key organizational perspectives assume bed rock importance as the whole structure of BSC is to stand on these perspectives. The foremost responsibility of any organization aspiring to adopt BSC concept is to decide its key perspectives after surgical analysis of its Vision, Mission and Strategy. As the Pakistan Defense services are aspiring to adopt BSC based concept of management, which as such shall bring a paradigm shift in
their management philosophy, it is but natural that a formal research be undertaken to clearly delineate the key strategic perspectives which presents a gap for this research and would serve as anchor posts for the BSC of Pakistan Defiance Forces.

According to (Lawton, 2003) the BSC is such an integrated report that shows which dimensions of performance are the most important for an organization. It is balanced, because it sets forth in one single report all the most important objectives and indicators relevant to different dimensions and thus, it provides a multidimensional and comprehensive picture of the organizational performance.

A similar tool mentioned in French literature is the Tableau the Bord (dashboard), which was already in use in the first decades of the past century to improve manufacturing processes by identifying the cause and effect relationship between activities. Both the American and French approaches emphasize that the system of performance management should support the achievement of strategic objectives and apart from financial information, non-financial information should also be used to measure performance towards ultimate achievement of strategic vision of an organization. Both tools are suitable to provide an incentive to management to articulate a clear, widely accepted strategy (Epstein and Manzoni, 1997.). Epstein and Manzoni also emphasize that the majority of companies generate reports on the non-financial dimension of performance, but the great advantage of BSC and its French equivalent is that all these are summarized in one single document.

Bourguignon et.al (2001) and his co-authors were critical of BSC and called attention to the need to study the cultural environment before its implementation. They have identified as a common characteristic that both systems are geared to eliminate the dominance of financial indicators and place the emphasis on proactive rather than reactive intervention.

1.1 Management Accounting Vs BSC

Looking at its history, management accounting derives from cost calculation techniques developed at the end of the 19th century in England. Cost calculation techniques became important from the second half of the 19th century, because as a result of technical development, the scope of local business widened, thus the organization grew as well as the indirect costs, so the unit cost of a product was not so evident anymore. Management accounting research flourished from the end of the 1950s until the mid 1970s in America. By the 1980s, the gap between the theoretical basis for management accounting and the methods used in practice grew rather larger. It was Johnson and Kaplan who articulated perhaps the
widest known criticisms in their book titled “Relevance Lost: The Rise and Fall of Management Accounting” (Johnson and Kaplan, 1991).

According to their opinion, management accounting system was not adequate for the modern requirements of competition (Ashton et al, 1991). (Chadwick, 1999) characterizes management accounting according to the following:

- The flow of information provided by management accounting allows managers to react at the earliest to any emerging problems or situations. Consultations are required with the users of information, the managers, in order to ascertain their need for information and the timing of information required etc.

- It provides advice to managers to explain the economic consequences of their decisions and alternative actions, as well as to discuss information related to implementation.

- Based on organizational objectives and forecasts for the future, it also helps to plan expected performance and to compare it with actual figures.

- For the success of a management accounting system, it is indispensable to have a reliable and efficient communication system. Clear communication and understandable formats are required (reports, analysis, tables, diagrams, graphs), but at the same time information should not overburden managers.

- The system has to be flexible enough in order to react rapidly to organizational or environmental changes.

- It is essential to be aware of the role that other departments/aspects of the organization play towards the overall achievement of organizational strategy. Cooperation and coordination is also necessary with these departmental functions, especially when preparing overall budgetary requirements.

- Users of the information have to be knowledgeable about methods used, have to know the benefits and the restraints of these methods, thus great emphasis has to be placed on the training of the staff.
Management accounting is not an exact science; the majority of information generated is subjective. Management accounting is not of primary importance in decision-making; it is only one of those tools serving the needs of the management, which helps more justified decisions (Herbert et al, 1987) emphasize that a system to be established has to be able to also collect and use statistical data, performance and efficiency indicators beside cost figures. They define the areas of management accounting according to the following:

- Cost estimation: aiming at planning and controlling.
- Planning: e.g. to show whether there is a need for a new product, a new service or a new installation.
- Cost control: to monitor costs whether they are acceptable in the case of a given activity.
- Performance management: for management assessment to see how efficiently the organization was managed.
- Motivation of management: to provide for the integrity of objectives. Standards, budget and performance measurement methods have to be established in such a way so that they are suitable for motivation.

According to (Barton Nagy,1997) management accounting is such a system of organization, planning, accounting, evaluation and information provision which has the objective of providing the necessary data and information (for decision making, planning, monitoring, assessment) to the organizational units that helps to maximize outputs and outcomes.

The main objective of management accounting is to provide unit cost calculation, to provide information assisting decision making – for which the main requirement is continuity, precision, applicability, clarity and timeliness – support planning and controlling (Bartok Nagy, 1997). Management accounting however can also serve to support strategic decisions for which precision is less important (Cooper, 1993). On the other hand management accounting fails to give an holistic performance picture of the organization, whereas, presenting a picture of wholesome development of organization is the main character of BSC system of management because of which, management can always feel the pulse of the organization and is well facilitated to localize ailments of the organization for making right and timely interventions.
1.2 Measure- the Heart of Balanced Score Card

Performance measurement is the tool used to determine whether organization is meeting its objectives and moving towards the successful implementation of strategy. Measures are used to evaluate and communicate performance against expected results/targets. There are two types of measures:

- Outcome Measures (Lagging Indicator)
- Performance Drivers (Leading Indicators)

Lagging Indicators represent the consequences of the action taken. If any problem occurs in the lagging indicators, it is too late to prevent them as it is the operational level and consequences are generally severe for the organization.

1.3 Implementation of Balanced Score Card- Taking Strategic Initiatives

Initiatives are the actions that help organization actually implement the strategy and achieve the set targets. To ensure that organization has right set of initiatives, it is important to religiously follow the under mentioned steps:

- Conducting an audit of all initiatives being pursued in an organization.
- Correlating /mapping these initiatives to the set objectives for the BSC.
- Elimination of those initiatives which are not aligned with the objectives set in the BSC.
- Prioritizing the remaining initiatives.

1.4 Problem Statement

Application of BSC is a success story with many corporate organizations; however, among the world militaries US defense forces have claimed substantial success in achieving desired strategic outcomes using BSC management methodology. Inspired by such global success stories, it is being contemplated by Pakistan defense services to adopt BSC concept of management. BSC at the same time serves only as a concept for holistic management and needs to be modified according to vision, mission and grand strategy of an organization. Especially the decision about key organizational perspectives assumes critical and fundamental importance as the whole structure of BSC management philosophy is to stand on these perspectives. Existing four BSC perspectives i.e. Customer, Financial, Internal Processes and Learning and Growth as propounded by Kaplan and Norton are related to corporate organizations. Given this
scenario, a thorough research is required to be undertaken keeping in view vision, mission and strategic aims and objectives of Pakistan Defense Service to explore **key management perspectives** to be used as foundation stones for developing BSC for Pakistan Defense Services.

### 1.5 Research Objectives

In the light of preceding Problem Statement, following are the main research objectives:

- Determining the common grounds of importing BSC perspectives from corporate to defence services of Pakistan.

- Exploring relevant BSC perspectives for Pakistan Defence Services.

- Proposing a suitable BSC model for achieving National Defence Strategic Aims and Objectives based on relevant BSC perspectives.

- Testing the proposed BSC Model to validate the proposed perspectives for Pakistan Defense Services.

- Verifying the results through triangulation by using quantitative and qualitative data.

Identifying the possible limitations/Implications to be encountered by Pakistan Defense Services management; while adopting the proposed model of BSC perspectives.

### 1.6 Focus of the Study

The latest aspirations of Pakistan defense services to import BSC based management philosophy is a big step in the direction of adopting modern management tools. BSC is a concept rather than being an algorithm and should not be taken as a readymade prescription or antidote for all sorts of organization’s management problems (Norton and Kaplan, 1999). BSC, therefore, should not be adopted as a straight jacket and needs to be suitably modified keeping in mind core vision and mission of an organization (Kaplan, 1996). Especially, key organizational perspectives assume bed rock importance as the whole structure of BSC is to stand on these perspectives. The foremost responsibility of any organization aspiring to adopt BSC concept is to decide its key BSC perspectives after surgical analysis of its Vision, Mission and Strategy, which presently is considered a gap. In view of this existing gap in available management literature on Pakistan Defence Services, this research would be focused on exploring relevant BSC perspectives in the light of collective vision and mission of Pakistan Defense services.
Chapter 2

Literature Review

2. Introduction

At the academic and practical level, corporate/business organizations have gone a long way to find how to make their organizations sustainable and develop proportionately. Though the defense forces also have stringent type of Organization Management systems since centuries, but somehow, these are less inclined towards testing and employing modern methods and technology for the effectiveness and development of their management methodologies. In the corporate world Balanced Score Card (BSC) is one such tool, which is very aptly being utilized for maintaining and updating Business Organization, however, the potential as well as the feasibility of the same has not been yet tested in the defense forces, whereas, evidence suggests about 40 percent organizations in UK consider BSC extremely valuable (2GC limited, 2012). This study is therefore, being undertaken to explore relevant key management perspectives for the implementation of BSC in Pakistan Defense Forces.

The BSC system, tries to transpose the vision and the strategy of the organization into such a comprehensive system of indicators which at the same time also defines the strategic framework of performance assessment and management. It tries to establish a balance between four different perspectives: financial, customer, internal business processes, and learning and growth. At the same time it also establishes a link between strategy and operative management. It sets forth in a comprehensive report the most important factors for an organization (Kaplan & Norton, 1999.)

According to (Lawton, 2003) the Balanced Scorecard is such an integrated report that shows which dimensions of performance are the most important for an organization. It is balanced, because it sets forth in one single report all the most important objectives and indicators relevant to different dimensions and thus, it provides a multidimensional and comprehensive picture of the organizational performance.

Management science frequently criticizes accounting based corporate management, because resources and factors that do not appear in the balance sheet according to current rules become more and more important. Significant part of the difference between book value and market value of a company is the intellectual capital, which can be divided into three parts: client capital (customers), structural capital (operational processes), human capital (learning and development). The BSC provides an opportunity for the conversion of intellectual capital into financial capital at a strategic level (Lengyel, 2001).

A similar tool mentioned in French literature is the Tableau de Board (dashboard), which was already used in the first decades of the past century to improve manufacturing processes by identifying the cause
and effect relationship between activities. Both the American and the French approaches emphasize that the system of performance management should support the achievement of strategic objectives and apart from financial information, non-financial information should also be used to measure performance. Both tools are suitable to provide an incentive to management to articulate a clear, widely accepted strategy (Epstein & Manzoni, 1997). Epstein and Manzoni also emphasize that the majority of companies generate reports on the non-financial dimension of performance, but the great advantage of BSC and its French equivalent is that all these are summarized in one single document.

Bourguignon et al. (2001) and his co-authors were critical of the BSC and called attention to the need to study the cultural environment before its implementation. They have identified as a common characteristic that both systems are geared to eliminate the dominance of financial indicators and place the emphasis on being pro-active rather than making reactive interventions. Before dilating further on the pros and cons of finding or establishing suitability of BSC for Pakistan Defence Forces, it would be logical at the outset to understand working / operational paradigm of Pakistan Defence forces.

2.1 Understanding Operational Paradigm of Pakistan Defence Forces

What remains of supreme importance to any nation over her varied and multiple interests is the “National Interest”.

2.1.1 National Interest

In Pakistan’s Grand National Security Strategy the national interests are described as:

- Security
- Prosperity
- Freedom

These interests are interconnected as well as mutually supporting without any sense of security and the ability of a common Pakistani to live his / her life freely, the dream of prosperity cannot be fulfilled. Though freedom of Pakistani Nationals to interact / engage internationally creates opportunities, also makes them vulnerable in the event of any foreign aggression, which may entail application of force to secure international opportunities.

National interests are therefore underpinned through a secure and resilient nation. This means nation should be able to mitigate the risks to her interests both locally and internationally employing various elements or instruments of national power. Above mentioned broad national interests are secured by carefully articulating and employing national policy and national strategy:
• National Policy statement broadly outlines the various parameters or choices helping to adopt course of actions by the government. In a nutshell National Policy is a statement of intent or commitment to actions.

• National strategy on the other hand is creating and orchestrating the instruments/elements of national powers in the pursuit of national policy objectives.

Policy and strategy mutually describe what is required to be achieved as a nation i.e. (the achievement of national aims and objectives) or in more precise/technical term, (the ends). How to achieve it (the ways) or the strategy and what resources to be employed (the means). Although policy and strategy are shaped under influence of external factors, but are mutually interdependent. No intelligent or shrewd policy can ever deliver without a well articulated strategy. The protagonists of Balanced Score Card proudly claim that it helps the organizations to deliver strategy outcomes to achieve policy end state. That’s why BSC is attracting enormous interest of military and defence organizations.

2.1.3 National Strategy

Nations at global level are in a continuous state of competition to secure their respective interest and influence. Pakistan’s National Strategy also, therefore, sets out in pursuit of her national policy objective by coordinating/marshalling various instruments/elements of national power. Prime minister and his cabinet are overall responsible for Pakistan’s National Strategy. Nation Strategic Aims and objections are articulated in the political intentions of Government. National strategy is then put to test and is contested by other competing Nations in the international arena in diplomatic, economic and military domains. Therefore, formulation and execution of National strategy is dynamic in nature and needs to be adjusted to changing internal/external scenarios. The BSC system, tries to transpose the vision and the strategy of the organization into such a comprehensive system of indicators which at the same time also defines the strategic framework of performance assessment and management Bigliardi B, and Bottani E (2010).

The forum for discussing national security objectives is provided by National Security Council (NSC) and headed by the Prime Minster and is attended by Defence Minister, Interior Minister, Chiefs of Staff of three armed forces and Director General of Inter Services Intelligence (ISI). Various requirements of national security are prioritized exercising national security strategy using various strategic and security reviews led by NSC.

2.1.4 Defence Policy
National Defence Policy outline the “End States” of military strategy and defines contours, shapes, size and structures of defence forces in view of their desired contribution towards the achievement of national aims and objectives keeping in mind the availability of resources and various constraints.

2.1.5 Defence Strategy

The Defence Strategy describes overall contribution of defence forces towards the national strategy. It is an arm/department of states function under the Minster of Defence through Defence Secretary. Defence Strategy translates out of the defence policy various responsibilities allocated to the defence forces for the delivery of specific outcomes. Defense strategy also ensures that Pakistan maintains credible and capable defence forces generating credible deterrent effect to thwart any external aggression. Defence strategy gives direction as to how country’s defence capability should develop over time in view of future threat perceptions and anticipated operating environment in tandem with national resource base and possible constraints.

Defence strategy is to be kept above and supreme to individual services interest. Defence strategy knits together corporate strategy with political and military strategy. It also includes articulating and implementing various other strategies e.g. counter terrorism strategy like ongoing Operation Zerbe Azab, international defence engagement strategy e.g. forming part of UN peace keeping efforts.

2.1.5.1 Military Strategy

Military strategy functions under the overall umbrella of defence strategy and is a sub set of defence strategy. It directs the application of military power in response to internal and external challenges as recognized / classified by the Government. No intelligent or shrewd policy can ever deliver without a well articulated strategy Niven P.R (2014).

2.1.6 Instruments of National Power

The National Strategy seeks to employ coordinated use of following three instruments of national power.

- Diplomatic Instrument.
- Economic Instrument.
- Military Instrument.

For the sake of this research we will further dwell into the details of military instrument being the man subject of this research thesis.

2.1.7 Military Instrument
Military actions in support of National strategy range from serving as deterrence to coercion and finally the practical application of force to counter any threat.

**Fig: 2.1  Stages of Military Instrument in Action**

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<tr>
<th>Peace Time Stage</th>
<th>Building up of Tensions Stage</th>
<th>Outbreak of Hostilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serving as Deterrence Peace Time</td>
<td>Coercion Physical Posturing Maneuvering</td>
<td>Practical Use of Force War</td>
</tr>
</tbody>
</table>

The main strategic objective of any military action remains political in nature. This very fact precludes military action being the only solution to any conflict therefore, the military power / instrument:

- Is more effective when operates in tandem with other instrument of state power.
- Is not independent in nature rather is the continuation of national policy means for example tough negotiations with same prospective advisory trying to obstruct some vital national interest / gains; diplomacy might only be successful if backed by a credible threat of use of force.

The most important use of military instrument is to ensure internal as well as external national security through a credible threat or application of legitimate force. Following tasks / challenges could necessitate use of military instrument along with other state instruments of power and political wisdom:

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<th>Table 2.1</th>
<th>External Dimension</th>
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<tr>
<td>1</td>
<td>Maintaining National Sovereignty</td>
<td>1</td>
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<tr>
<td>2</td>
<td>Ensuring integrity of National Frontiers and Boundaries / Territorial limits.</td>
<td>2</td>
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</tbody>
</table>
3 Ensuring integrity of sea lines of communication keeping / maintaining the flow of international trade.

4 Ensuring security of National Air Space and Air Corridors

5 To be able to create strategic effects such as thwarting any foreign agencies or denying any prospective enemy to cease initiative of aggression against own nation. Creating an overall psychological sense of security for the nation enabling its people to perform at their optimum in various walks of life so that they can participate constructively in the process of nation building and national growth both at micro or macro level.

3 Aiding Law enforcement agencies against non state actors and terrorism

4 Rendering help during natural calamities / disasters.

The effectiveness and potency of military instrument rests squarely on the ability as well as willingness of nation to deploy rapidly in an effective manner and then should be able to sustain it at operation as well as tactical level. Yet there are many states around the world which are unable to overcome their limitations in logistic and command and control domains generally faced during the deployment of technically advanced and modern militaries.

Being able to apply force or presenting a credible threat against those having hostile intentions helps maintain integrity and security of national system and cohesion among various federating units of the state. At the same time it re-assures the people of Pakistan to engage in national building and prosperous activities without any fear and is the ultimate desired “End” state. The level and extent to which Pakistan desires such influence through her defence forces depends on its ability to maintain defence forces at an effective level of preparedness by providing sufficient quality resources both in terms of human and material. Pakistan maintains a military capability both in terms of nuclear as well as conventional forces, at a required level of readiness in view of the perceived hostile intentions of potential enemies.

2.1.8 The Characteristics of National Defence Forces or Military Instruments
The main purpose of Pakistan Defence Forces is to retain their fighting power and excellence. And in the face of any hostilities should be able to fight, win and defend the country from external aggression. The fighting ability of the military is comprised of:

- Conceptual Component
- Moral Component
- Physical Component

**Fig: 2.2 The Components of Fighting Power**

Any armed conflict is competitive and adverse in nature competing belligerents seek to undermine / annihilate fighting power / will of the other while retaining its own. Achieving relative superiority is a measure of ultimate success factor in any armed conflict.

**2.1.8.1 Conceptual Component**

The conceptual component defines a thinking frame-work for defence personnel for developing their understanding about the profession as well as various activities that they are required to undertake as part of their professional service. The conceptual component aims to:

- Lays down intellectual paradigm for armed forces
- Theoretical justification of provision and employment of Defence Forces.
- Preserving and building on corporate knowledge and experience.
Conceptual framework is therefore, a reflection of collective experience of a body of defence personnel. It encompasses improvements in the existing practices, tactics and doctrines as well as the analysis of future threat perceptions. The conceptual component consists of three important elements:

- Principles of War
- Doctrine
- Innovation

### 2.1.8.1.2 Principles of War

The principles of war serve as guide to employ military power. Though these are listed but are not exhaustive neither are required to be rigidly followed:

- Selection and Maintenance of aim
- Maintenance of morale
- Offensive Action
- Security
- Surprise
- Concentration of Force
- Economy of Effort
- Flexibility
- Cooperation
- Sustainability

### 2.1.8.1.3 Doctrine

Doctrine chalks out broad operational policy contours in the light of over-arching defence policy end defence strategy. Commanders in the field both at operational and tactical level are to draw insight for their actions from these doctrines these could be classified as:

- National Doctrine
- Joint Services Doctrine
- Respective Service (Army, Navy and Air Force) doctrine
- NATO or other allied doctrines

### 2.1.8.1.4 Innovation
To meet desired government policy requirements and develop for future defence needs in view of perceived future threat perception, defence forces need to be progressively engaged in intellectual and educational experimentation with an aim to understand that to what level existing doctrine contributes to the conceptual component. The component is continuously updated through conceptual innovation in the light of changing thinking in response to new technologies, capabilities and future challenges.

2.1.8.2 Moral Component

As warfare is a function of human activity, the moral component therefore, has a decisive psychological role to play both individually as well as collectively. The morals (principle of right or wrong) is one such aspect which enhances mutual cohesion and moral (A sense of well being and confidence) promotes mutual courage and commitment.

The moral component of fighting is to get the people to fight willingly. Moral component is comprised of following three components which are mutually inter related:

- Moral Cohesion (Prepared to fight)
- Motivation (Ready enthused to fight)
- Leadership (Inspiring to fight)

2.1.8.2.1 Leadership

“A commander should have profound understanding of human nature, the knack of smoothing out troubles, the power of winning affection while communicating energy, and capacity for ruthless determination when required by circumstances. He needs to generate an electrifying current, and keep cool head in applying it”. (BH Liddle Hart)

Leadership is the art of projecting personality as well as purpose of influence subordinates / stake holders and prevailing in a demanding circumstances, there is no rigid or definite style of leadership neither there is any prescription to be a successful leader. At the same time leadership is not an exclusive domain of seniors, intelligent, vibrant and decisive leadership needs to be exercised at all levels. While borne or natural leaders are rare; with help of training and experience, latent leadership potential can be developed. A military leader needs to consider the following:
Leadership is an artful combination of self example, persuasion and at times compulsion. An effective military leader displays strength of character, sound judgment, shrewd initiative and professionalism. And uses these traits to exploit and maximize opportunities. A military leader should always strive to muster respect, devotion and commitment of his subordinates by displaying professional competence, moral courage, fairness and discipline. A military leader should train his subordinates to cultivate necessary confidence to shoulder responsibility, take initiative and take calculated risks. In adverse situation, a military leader should be able to contain his own fear and demonstrate courage. Leaders should be able to clearly differentiate between an activity and progress. A well informed calm and confident leadership is vitally important for the success of any campaign/operation and maintenance of morale. A military leader should be visible to his men through frequent presence and self example. Higher level leadership should maintain relationship with subordinate, operational formation, lower level units and even individuals, including civilian partners and contractors. Mere management of personnel / human resource cannot substitute leadership, but can remarkably support it. Exercising leadership over geographically displaced, larger command segments having decentralized networks e.g. allied or joint forces structures is challenging. Perceptions of subordinates about their leaders are shaped due to their reputation, professional competence, self example and their authority.

Sound management and an effective leadership, while working in unison; induces and sustains motivation of subordinates and inspires confidence in them.

2.1.8.3 Physical Component (Resources)

“In the operations of war, where there are in the field a thousand swift chariots, as many heavy chariots, and a hundred thousand mail-clad soldiers, with provisions enough to carry them a thousand Li, the expenditure at home and at the front, including entertainment of guests, small items such as glue and
paint, and sums spent on chariots and armor, will reach the total of a thousand ounces of silver per day. Such is the cost of raising an army of 100,000 men”. Sun Tzu

Above narrations of centuries old military thinker and strategies Sun Tzu amply highlight the importance of resources for the maintenance of credible defence forces. It is therefore, that the roots of this study are imbedded in the “Resource Based Theory” It is, therefore, mandatory upon the National Defense Leaders to make a judicious, intelligent, proficient and most economic use of state’s hard earned resources to derive best possible value by achieving synergy among various constituents of the defence forces exercising best possible management practices to achieve grand national strategic defence objectives (Fontanel & Coulomb, 2007).

The physical component or the resource base of military provides it with the means to fight to achieve desired ends. This component encompasses the following:

- Man Power
- Training
- Collective Performance (Team Work)
- Equipment
- Sustainability
- Readiness
- Progressive Adaptation (Adapting New Technologies and knowledge)

### 2.1.8.3.1 Man Power

As for the importance of man power or human resource for a defence force; it is generally said, “It is not the gun but the man behind the gun which matters”. As it is difficult to guarantee technological or equipment superiority over an adversary; it is therefore, logical of a defence organization to invest in its people to achieve competitive or decisive edge. The term People include regular military men, service personnel or other employed and contracted by Ministry of Defence (MoD). It is vital to invest in defence people to ensure their sufficient numbers, well educated, well motivated and capable. In order to ensure a sustainable workforce, it is mandatory to invest in recruitment, development and retention of high quality personnel by introducing incentives and post retirement rehabilitation. Well motivated and capable personnel are a key resource of any fighting force and should therefore, be fully integrated into the defence planning process. Instead of relying on modern technologies and superior fire power, commander should induce, develop and exploit human traits / qualities e.g. adaptability, resilience, effective thinking, empathy and agility required in any future operating environment. Military leaders should also encourage and polish innovative instincts of their men by providing / creating conducive environment.
2.1.8.3.2 Recruitment

Every nation responds differently to its ever emerging security needs, and will therefore, have her own unique approach to raise its military capability, which may be influenced by its own peculiar history, culture, economic development and its geographical compulsions. Therefore every nation will have its own approach to determine size as well as composition of its defence force structure and shall carry out recruiting of personnel accordingly. However, beyond specifics there are certain common considerations which cannot be avoided in the exercise of determining any force structure. The most important of these is that any man power induction / recruitment strategy is to be aligned with certain nations of overarching military strategy and national security interests. In absence of this important linkage, recruitment remains direction less and makes very little sense. The force structure and man power induction / recruitment logically begin with the making of national security strategy, which emerges out of certain national interests and strategic compulsions as well as future threat perceptions. These considerations bring out roles to be performed by national armed forces and are therefore, primary determinants of force size and configuration. Then is the important factor of affordability and size of the defence budget that imposes restrictions on the size of force structure and in turn on recruitment policies. In view of these constraints, force structure and quantum of man power is determined considering what military capabilities are to be acquired and on what scale.

2.1.8.3.3 Management of Military Manpower

After induction / recruitment next important step is the distribution of manpower to various sub departments in order to meet their vital needs according to the required skill level and qualification. In practical terms it demands careful synchronization of the flow of man power through complex and integrated stages of recruiting, training, deployment, evaluation, promotion and finally release from the service. Failure to manage this important synchronization may result into serious imbalances in over all force structure, causing shortages of skill levels, qualification and competencies in certain critical areas, while surpluses in other less important areas. Any of this possibility can seriously affect the military capability. In nut shell the supreme aim of management of military man power is to maintain correct teeth to tail ratio of the military instrument to ensure its credibility to address possible eventualities threatening national security.

2.1.8.3.4 Training
To prepare recruited military personnel for war to undertake various challenging operation, they undergo tough and rigorous selection and evaluation procedures. Collective training transforms them into productive team members. Further development through various professional courses equips them with required skills to achieve balance in over all force structure. Despite facilitation of training through simulation thanks to modern technology and digital revolution live training on board actual platforms or in various geographical areas is necessary to ensure combat readiness of troops. It is therefore, important that our training methodologies should match demands and complexities of likely operating environment.

2.1.8.3.5 Collective Performance

Collective performance of troops is a function of good mutual cohesion, dependence, confidence and the level of proficiency achieved by the various units and formations while training together an optimized collection performance can be ensured through a high level of integration of all the stake holders usually each sister service i.e. Army, Navy and Air Force is responsible for achieving such integration and cohesion to present a joint response during joint national or international operations.

2.1.8.3.6 Equipment

A credible and potent fighting Army needs to be well supplied with sufficient and effective equipment, modernized and optimized according to likely challenges and future threat perceptions. At the same time given the fact that resources are not unlimited, the demand for military equipment should be according to the envisaged scale and frequency / intensity of use rightful projection and employment of force requires as well throughout, well measured and sustainable equipment supply programme. In the light of strategic needs as well as innovative conception, equipment procurement and acquisition should be under pinned by a robust and sustainable supply chains having flexible life support. Though technology may provide an edge over an adversary, however, experience has shown that too much reliance on technology at the cost of proven human based war fighting culture may prove risky.

2.1.8.3.7 Sustainability

Sustainability is one of the most essential aspects to ensure a credible and potent fighting military. It is an amalgamation of:

- Logistics.
- Personnel and administrative structures.
2.1.8.3.8 Readiness

Pakistan keeps its forces at varying states / degrees of readiness according to the risks assessment and threat perceptions. There could be following readiness postures:

- Balancing the time required to generate a force, carrying out preparation and deployment according to the available resources.
- It comprises of combinations of troops, availability of equipment, sustainability and collective / integrated performance.
- It indicates the minimum time frame within which a formation or unit can be put to action or deployment.
- It shows our ability to swiftly deploy our military instrument and demonstrates our ability and resolve.

2.1.8.3.9 Building for Future

Any dynamic defence force of its salt always keeps an eye on the state of preparedness of its existing and possible future enemies. Emerging/building crises may demand for new technologies or could render all ready held as obsolete Mark Webster (2017, pp.25-36). Therefore, Pakistan needs to raise and sustain her fighting element according to future threat perceptions. Therefore, threat perceptions for any nation are in fact dynamic in nature and keep changing in the wake of:

- Changing regional and international alliances.
- Changing economic obligations and compulsions of adversaries.
- Changing defence capabilities of an adversary with changing technologies and procurement of more effective and efficient weapons and sensors.

An alive alert and dynamic defence force always keeps an eye on above mentioned fundamental realities and keeps adjusting its responses accordingly by taking timely necessary actions and keeps war gaming its various options, also inducts new resource and capabilities to maintain a superiority or to ensure an equitable or befitting response. Pakistan endeavors to maintain required military capability to deal or confront likely conflicts or crises having potential to threaten national integrity or vital national interests. However, emerging/building crises may demand for new technologies or could render all ready held as
obsolete. Therefore, Pakistan needs to raise and sustain her fighting element that is according to the given resources:

- Is broadly well balanced and capable of dealing with a range of possible scenarios.
- Should be agile and flexible enough to adapt to the emerging challenges.
- Can adopt to the new technologies as well systems.

2.1.9 Enabling Processes Day to Day Working Methodology of Defence Forces

Day to day working methodology of any defence force is an ought most important paradigm, rather it defines the DNA of any Defence Organization as the enabling processes of defence forces have direct relation and effect on the effectiveness of peace time training and future preparedness for war or the ability to create strategic effects deemed important to ward off any external aggression or render a helping hand during national calamities. The quality of following three most important aspects having direct bearing on the effectiveness and potency of any defence force depends squarely on the proficiency and effectiveness of enabling processes:

- Recruitment
- Training
- Procurement

The ultimate outcome of various processes of a defence establishment is to generate a fighting power producing a military force capable of succeeding in operations against a prospective adversary. It therefore, needs to be carefully understood that there is a clear distinction between having a fighting instrument / military and generating a fighting power, which is a function of each element of a long chain of enabling processes of the entire defence organization. For example collective training alone generates no capability in itself; rather it is the resultant collective performance, which contributes intrinsically to the physical components elaborated in previous pages. Generating fighting power through various enabling processes has two fundamental implications:

- Generating fighting power achieves focus of various non operational activities across entire defence establishment. On an operational level at a scene of action some aspect of fighting power for example, morale may be enhanced, whereas, equipment might become depleted. A balance therefore, needs to be achieved from a strategic to the tactical level, between the generation of fighting power to the achievement of short term immediate objectives as well as the efforts for sustaining and fighting power for future assignments. This also includes maintaining capability to address various contingencies.
Generation of fighting power strongly depends upon various supporting foundations and units. Though not directly contributing to operational fighting capability, these play an essential role in ensuring the sustained provision of fighting capability. A well secured home base having appropriate technical infrastructure and accommodation could be such an example of supporting foundation. Just as the present fighting ability/power is a function of past foresight and investment, today’s investment in men and material shall determine the quality and effectiveness of future military power.

To achieve the key defence organizational objective of generating fighting power. Defence force organizations pursue various inter related strategies, which are categorized as ‘Core’ and ‘Support’ strategies as shown in the figure: 2.3

![Core Strategies Diagram](image.png)

Core and supports strategies are pursued and coordinated in a manner using various organizational processes to generate strategic/tactical effects including fire power in time of hostilities to support greater aims and objectives of the grand national strategy.

Above discussion gives a clear understanding of the working paradigm of national defence force in support of national strategy and defence strategy employing its military strategy to achieve Grand National objective of peace and prosperity by ensuring internal and external security of the country. This now sets the stage for exploring that how BSC can be used / exploited to help Pakistan Defence Force in achieving their objectives being a public / government organization. It is therefore, now logical to look for the global evidence and foot print of BSC in support of public or government organizations.
2.2 **Historical Perspective.**

World over, industries and the organizations are going through a revolution. The Industry based traditional competitions are shifting to information based competitions. From 1850 to 1975 during the industrial age the success of a company depended upon the fact that how well it succeeded in capturing the benefits using the strategy of economies of scale (Chandler, 1990). Technology used to matter and success used to be on the side of the one who could acquire and install new technologies, which offered efficient mass production of goods and physical products. Financial controls were developed and introduced by companies such as, Du Pont, General Motors, Matsushita and General Electric, to supervise and facilitate efficient and effective allocation of financial and physical resources (Chandler, 1977).

With the emergence of information age during the last decades of 20\textsuperscript{th} century, has rendered obsolete many myths of industrial age. Companies or organizations could no longer gain superiority by mere acquiring and deploying new technologies efficiently in physical terms or by proficient management of financial capital and assets. The impact of information era has been more revolutionary for services industry than for manufacturing industry. The information age demands new capabilities for comparative success for services, industrial as well as public organizations. An organization’s ability to exploit and leverage its intangible assets has become more decisive than to invest and manage its physical and tangible assets (Itami, 1987). The intangible assets can help an organization in the following manners:

- Developing relations with customers and stakeholders to retain their long term loyalties.
- To Introduce high quality customized products.
- Mobilize and exploit employee skills as well as motivations to continuously improve internal process capabilities, response time and quality.
- To Deploy Information Technology, systems and databases.

2.2.1 **Cross Departmental Functions.**

During reign of Industrial age, organizations used to gain competitive advantage by specializing respective trades and functional skills. These specializations used to work to the advantage of organizations providing them a sort of monopolistic leverage. However, with the passage of time, over specialization rather led to inefficiencies and slowing down of an organization due less intra department
cohesion and communication. On the other hand, in the ear of current information age, organizations conduct their functions through integrated processes cutting across traditional departmental functions (Champy and Hammer, 1993). It helps to exploit the specialization through integrated processes.

2.2.2 Innovation.

In the corporate world, life cycle of a product continuous to shrink. Competitive advantage gained during one generation of a product may not guarantee even survival of the product at next technological shift (Bower and Christensen, 1995). Companies and organizations competing using technological innovations are in a better position to assimilate future needs of the customers and stake holders, thereby designing futuristic products and services. And rapidly deploy new product technologies into efficient operating and service delivery systems.

2.2.3 Knowledge Workers

The industrial age organizations and companies have two distinct groups of employees; the elite group of engineers/managers and intellectuals. Who used to deploy their analytical skills for designing products and processes, as well as selecting and managing customers and stake holders, while running daily operations. The second blue collar group used to actually produce goods and products and deliver services. This working class was the main factor of production and used to work under direct supervision; deploying their physical efforts without applying their minds. With the end of twentieth century, the automation technologies have reduced the percentage of traditional work force. Whereas, competitive environment has increased the demand for personnel; capable of performing analytical functions, administration, engineering, marketing and management. The suggestions of the physical workers deployed on production lines are also sought to improve upon quality, cost reduction and improving production cycle time. In this age of information, people are viewed as thinkers and problem solvers rather than variable costs (Kaplan and Sweeney, 1994). As organizations are in the desperate state to transform continuously to remain relevant and gain competitive advantage, they are using various improvement methods such as:

- Time based competition.
- Building customer focused organization.
- Total quality management (TQM).
- Lean Production / Lean enterprise.
- Just in time (JIT) production and distribution.
- Employee Environment.
2.3 Performance Management Vs Performance Measurement

The fundamental concept of performance management is; great performance, be it on stage or by an entity; be it by an individual or by a team, just not happen by default or at its own. Almost all management definitions emphasis on the basic premise i.e. to make effective use of resources to gain desired results (Donnelly et al. 1995). Thus it may not be surprising when Anderson concludes, "Management is a process aiming to achieve high performances". This implies that when performance becomes lackluster it is the responsibility of the management to put it right. Performance is therefore, a simple management activity with a focused attention on the human aspect of the entire enterprise. To give organizations and managers a capacity to manage, two basic realities need to be addressed:

Firstly over emphasis on control vastly reduces the capacity of the management for action. Secondly under a controlled environment, result expectancy may have a short life. It is generally presumed that having more controls in place is likely to generate better results. This approach or set of mind was expressed by McGregor (1960) as, "Theory- x". Such distrust of government is expressed in principal and agent approach i.e. (when government employees are seen as agents, whose interests are different from those of principal which is public) (Boorsma and Halachmi, 1998). (William and Holzer, 2003) noted that emphasis on performance measurement was meant to eradicate corruption by allowing more control on the discretion of managers making them accountable. However, the opportunity cost of such controls was never taken into account. And as a result of these controls, loss of capacity to perform was never estimated. Such theory (X) like assumptions need to be questioned. It also needs to be questioned that why a method generally considered wrong to manage individual employee is likely to be effective for a collective or team work.

While data collection is important to improve performance (Edwards and Thomas, 2005) but mere collection of data does not guarantee improvement. Smith (2002) observes that, definition of performance management may be vague. But British government has adopted a multi faceted strategy to improve performance of British National Health Services (NHS), which was based on concrete goals, empirical evidence and measurable results. He further stated that government efforts were somewhat resisted due to lack of coordination among different directives, professional bodies/organizations and others involved in the process (Smith, 2002). This shows that performance management through performance measurement tools is not free of snags or problems according to Bennet and Hill (2002), ample evidence about general interest in performance management practices is available. However, despite this reality and popularity, performance management has not been successful as per expectations or as it was projected.
They further observed that in spite of their lackluster performance, government desirous of being perceived operating as business like entity or organization wish to have some sort of performance management system in force. This would by default generate a requirement for data collection and reporting, training and other supporting documents preparation for strategic plans, performance evaluation, measures and performance budgeting. However, the positive perception created in the process of all this has in fact less to do with the actual displayed performance. This ceremonial activity is of only ritual significance and works as cosmetic face uplifting to validate an organization (Meyer and Rowan, 1991).

As far as human aspect of an organization or enterprise is concerned, performance management has lot to offer (Halachmi, 2005). This resembles to theory ‘Y’ approach where external controls give way to greater flexibility to managers, which is considered a key to success. Such approach by carter McNamora (n.d) is elaborated in the shape of following assertions:

- Helps you plan for the desired results. Managers become stake holders.
- Managerial focus is more performance oriented rather than personalities.
- Helps to validate expectations i.e. in order to full fill the high expectations, tendency to measure results helps to verify that how realistic the vision is?
- It helps to ensure equity amongst employees as the appraisals are result oriented.
- As the results and goals are aligned, organizational operations are optimized.
- Performance is reviewed keeping in mind organizational goals.
- Encourages and gives impetus to greater communication, dialogue and feedback among all organs of the organization.
- Performance is regarded as an ongoing concern, rather than a onetime event.
- Has enhanced focus on internal as well as external customers and stake holders.
- Continuous analysis of results helps to increase learning, which allows timely and correct interventions.
- Helps to apply and direct recovery according to the commitments.
- It allows a top down approach thereby ensuring the alignment of goals and results with the organizations overall vision and mission.

McNamra approaches the performance management in accordance with behavioral view point. His views appear to be consistent with those of Lawler’s (2003), who states that, “every organization has a performance management system in existence, which is expected to secure / accomplish many objectives according to human capital management.
According to Lawler (2003) the objective of performance management also includes performance through motivation, helping personnel to develop and sharpen their skills, promoting a performance oriented culture, determining individual competencies for promotion, eliminating the poor performance and helping to implement the organizational strategies. Therefore, Lawler (2003) concludes: “There is no doubt that performance management system, which can help to accomplish above objective, can surely make positive contribution to the effectiveness of an organization, but there is not much clarity about what makes an organization effective”

Another effective management system should however, help to manage an organizational culture. This demands a continuous monitoring of the prevalent culture to look for any changes or shifts or various interacting patterns among internal and external elements. One of the central theme of “Reinventing Government” slogan or movement the managing or measuring performance has been a key driver in reforming public sector in recent years among nations, the local government of Germany can be sited as best example of performance measurement (Halachmi, 2005). However, still full potential of performance measurement has not been realized. He suggests that further research is needed to assess the opportunity cost of performance measurement as well as the conditions under which the performance measurement supports the learning process of an organization. He further asserts that as far as the strategic management is concerned, high hopes associated to BSC may not be realized due to complex nature of public administration and involvement of number of stake holders.

2.3.1 Defining Performance Management

A wide literature exits on the performance measurement (Doglos, 2000), and the public and defense sector has also been well covered. Main emphasis here would be on the organizational performance measurement instead of measuring individual performance.

As per oxford English dictionary the performance is defined as, ‘how well or bad the one works’ (oxford dictionary 7th edition, 2003). It is evident that a sense of measure exists in the basic meanings of the word, ‘Performance’, as there has to be some measurable criteria to pass a judgment about the goodness or the badness of a task carried out. It is also equally important to know that what is to be measured in relation to each activity; the performance triangle has three main vertices. Input output and outcome. Input are resources consumed in the course of performance of certain activity, which are relatively easily measurable. Output is the result of organizational activity performed in a given period. Whereas, the outcome shows which organizational objectives have been achieved and what value has been added to the organization. The concept of performance measurement entails to be capable of operationalizing the three motions and be able to measure them. Depending on what we intend to measure, using the
aforementioned triangular relationship we can make a fair judgment about the economy, efficiency, effectiveness and value displayed in the course of performance of certain activity. (Vigvari, 2002) has defined the 3Es i.e. Economy, Effectiveness and Efficiency as follows:

**Economy:** Means minimizing the cost of input resources for a given activity.

**Efficiency:** Is measured as the per unit cost of an action out of a given activity.

**Effectiveness:** Depicts the tangible manifestation of the achievement of objectives.

According to the philosophy of value for money, any expenditure gets vindicated or justified if it helps in realizing the actual or the visual value (vigvari, 2002).

In case of Pakistan Defense Forces time to time instructions keep pouring in, especially when hit by economic difficulties from the government to exercise 3Es using austerity measures. As such instructions are reactive in nature instead of being proactive and are issued in a time and space when the institutional inefficiencies have already taken their toll and no worthwhile and well thought out intervention can be put into action. Neither the relevant data to facilitate quality decision making is made available, as the prevailing working culture is not based on the classical performance measurement theory, therefore, preserving data about organizational activities has not been given due importance.

### 2.3.2 Why to Measure Performance

Following is an elaborated list of logics presented by Halachmi in support of performance measurement both for public and private sectors:

- If one cannot measure it, it cannot be understood.
- If not understood, it cannot be controlled.
- If not controllable, it cannot be improved upon.
- If personnel know it is to be measured, they will perform.
- If results/outcomes are not measured one cannot decide about failures or success.
- If success is not visible it cannot be rewarded.
- If success is not rewarded, the failure gets rewarded.
- If success is not recognized it cannot be sustained.
- If success or failure not visible then there is no learning.
• If there is no learning no interventions can be made for improvement resultantly organizations may become stagnant and lose direction and can not set any bench mark for future.
• If failure is not recognized, it will keep repeating and loss of resources will continue.
• If results and resources consumed cannot be related or compared the real cost cannot be evaluated.
• If the cost is not known, decision regarding whether to outsource or to continue using own resourced cannot be made
• If real cost is not known, the best value for money cannot be ensured.
• If outcomes or results cannot be demonstrated the stake holder may lose confidence and their support cannot be mustered.
• If the organizational processes as well as material and human resources contributing to the success or failure cannot be documented and the performance may be questioned.
• If it cannot be shown that in comparison to the past or the competitor an organization is doing at par or better, organization may lose the confidence of stake holders.
• If the data about personnel satisfaction or dissatisfaction is not maintained, organization may introduce a change when it should not or in a worst scenario case, may continue a course that may seem correct on the face of it but is factually wrong.

2.3.3 Performance Measurement through Financial Yardstick

Especially in the corporate world, historically performance of a company or an organization used to be measured in financial terms. Accounting has been the, “Business Language”. Record keeping on the lines of book keeping can be traced thousands of years back when it was used by Egyptians, Phoenicians as well as Sumerians to conduct their commercial transactions. Few centuries latter, Accountants started measuring and monitoring of commercial activities. And the double entry book keeping practice came into vogue. The 19th century industrial revolution gave birth to: Rail, Roads, giant textile Industry, machine tool, steel and retailing companies. However, innovative methods of measuring financial performance played or key role in the enormous growth of these companies (Chandler, 1977). The financial measures such as, return on Investment (ROI) and operating as well as cash budgeting played a critical role in the enormous success of enterprises like General Motors and Do Pont (Johnson and Kaplan, 1993). The trend to have diversified enterprise after World War-II created a demand within the enterprise for reporting and evaluating performance of a business unit, a practice used extensively by diversified business companies like General Electric.
Thus at the close of twentieth century, the financial aspect of the business units of enterprises around the world is highly developed. Many observers have, however, criticized the exclusive and extensive use of financial measures within corporate world (Kaplan and Norton, 1996). An over emphasis on achieving short term financial results may motivate companies to over invest in short term fixtures and under invest in long term value creating objective, particularly intellectual and intangible assets that generate future growth.

One relevant example within USA is that of FMC Corporation from 1970s to 1980s that displayed best financial results like any large corporation. Yet the new management in 1992 carried out a strategic review with an aim to maximize share holders wealth. During the review it came to light that although short term operating performance still is important, the company should pursue a growth strategy (Brady, 1993).

When the managers are consistently pressurized to deliver short term financial objectives, the search for or to avail the opportunities to make investments for future growth are over looked, missed are become obsolete, simply because of extreme focus on short term delivery of results. In the worst scenario case, the extensive focus for short term performance, companies and organizations may reduce spending on fabrication of new procedures and services, Human Resource Development, Improvement in processes and acquisition and improvement of relevant information technology, data bases, systems and customers/stake holders as well as market development. These necessary financial cut backs through accounting are reported as income even when this has consumed as a matter of fact company’s / organization’s capability to create future growth, (Kaplan and Norton, 1996).

Furthermore, a company may maximize its short term financial gains by exploiting and manipulating the customers / stake holders, but the disloyalty and dissatisfaction created in the wake of this will render the company / organization vulnerable to in roads by new competitors.

Financial measures alone are therefore, inadequate for evaluating performance of organizations while confronted with competitive environment, as it is only a lagging indicator that does not encompass or capture what might have been created or destroyed in the course of performance of a manager. The financial measure tells the practical story about past performance and fails to give appropriate guidance for actions to be taken now to create future value or growth for any enterprise or an organization (Kaplan and Norton, 1996).

2.3.4 Global Awareness of Performance Measurement

In Denmark the National Audit office has divided the management activities into four areas as explained in Fig-1. Budgetary management mainly looks after the monetary requirement, whereas, resource
management is involved in defining the quality as well as quantity and the composition of input resources. Activity management takes care of defining the output or the activities. The performance management at the same time studies/notes the progress made towards the achievement of objectives.

The contenders of the British reform programme have defined the 3E system in the following manner:

a. **Economy**. Economy to them is a measure of the cost of input i.e. what is the procurement cost of unit input resource.

b. **Efficiency**. Is taken as the measure of input resource; consumed to generate a unit output.

c. **Effectiveness**. Is taken as, the ratio of outcomes to the output. The relationship between these two most important measures is being depicted in the following matrix.

<table>
<thead>
<tr>
<th>Strategic Effectiveness</th>
<th>Operational</th>
<th>Efficiency</th>
</tr>
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<tbody>
<tr>
<td>High Performing</td>
<td>Performing</td>
<td>Performing</td>
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<td>Unimportant Right things</td>
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**2.3.4.1 Reforms Objectives and approach**

In the objectives domain, the study recognized three main objectives of introducing performance management, which every country catered for with varying degree of emphasis. More emphasis was laid on improvement of overall management and Internal process in Australia, Denmark, Finland, Netherlands, Sweden and the United States overall control and accountability gained more focus in France, New Zealand and the United Kingdom. Relatively more emphasis was on savings in Canada; however, significant emphasis was also given to the same by New Zealand, the United Kingdom and US as well. In case of approach by these counties, reviewers have separated it into following categories top down & bottom up, comprehensive or incremental and De-facto or De-sure.

**2.3.4.2 Impact of Instructional Structure**

In order to improve the performance management, organization structure was also subjected to changes, which created an internal pressure for the management and external pressure for the organization as a
whole. The administrative style, which was used to follow the predefined rules and regulation, gave way to managerial discretions while the monopolistic bureaucratic character shifted to market philosophy. The changes that reforms brought in had two dimensions:

- Centralized approach.
- De-centralized approach.

In the centralized approach, strong hierarchy exists between the central command and the peripheral or the operational level. The center exercises strong control over resources in term of both Human and material, which is much similar to the management style of Pakistan Defense Services.

The de-centralized approach on the other hand gives more autonomy and liberty to various tiers of management in allocating resources to the different projects being pursued by the organization. This approach also encourages flatter and smaller size, especially for those organizations carrying out homogeneous task / activities. In the domain of policies and programme implementation, the consolidation approach advocates the interrogation of programmes / polices during development, implementation and assessment. The De-coupling and disconnecting departments give them more independence to achieve overall organizational objectives. Based on these two dimensions, following consolidation methods were identified:

a. **Centralization & consolidation:**
   A general method adopted by bureaucratic, hierarchies exercising strong control over resources and centralized implementation of polices.

b. **Decentralization & Consolidations**
   It is a character of autonomous organizations, implementing policies through central guidelines and coordination programmes. The lower levels of organizations are allowed to adjust to the pace of higher level organization exercising their local discretion and management.

The above study revealed that there is a greater shift towards decentralization, but an organized/comprehensive attempt yet has to be made to implement policies in an autonomous manner.

### 2.3.4.3 Performance Information Systems

One of the major breakthroughs witnessed during the study under review was the institutionalization of performance information systems, which included:
• These information systems are being used to measure: inputs, outputs and outcomes in respect of various activities being performed in the public and defense sector.

• In respect of financial management these info systems are being used for forecasting budgeting managing accounting, auditing and evaluation.

• For reporting information on the performance in form of annual reports for public use.

• For gleaning information related to performance budgeting and performance related wages.

• To ensure result oriented management support techniques.

The contents information system report is linked to the philosophy behind the public sector reforms. Some of the nations are more concerned about the outputs e.g. New Zealand whereas, other about the outcomes such as Australia and the USA. Some lay more emphasis on finances, service quality or customer satisfaction such as in Denmark the beneficiaries of the service in the Danish system also play a strong role to help measure and monitor the service quality. To measure sector wise performance, in the Scandinavian countries survey method is extensively used.

(Hazafi, 1995) suggested that professional and financial performance must be integrated and these should go hand in hand, as the cheap public service on the cost of dissatisfaction of users is not a positive indicator. He also prefers that cost may not be important if the end user of service is satisfied. However, latter part of the statement is contestable, as mere putting in heavy investment or expenditure on certain public/ defense service initiative may not be an indicator of satisfied users or beneficiaries.

2.3.5 Objectives of Performance Measurement

Mckewit and Lawton after their study about the objective purpose of performance measurement have proposed following three functions of performance measurement.

a. **Organizational Function.** Defining the core objectives and values of the organization and soliciting commitment of the key organizational players for the realization of these objectives.

b. **Management Function.** Providing continues information / data about the actual and planned performance parameters, thereby facilitating in executive decision making.

c. **Technical Function.** Providing information to the concerned stakeholders about the overall performance of the organization.
2.4 Balanced Score Card in Public Service / Government Organizations

In the concluding years of 20th century, public / government organizations around the globe have witnessed extensive reforms, such as increasing focus on consumers / stake holder’s orientation (Aberbach and Christensen 2005), Decentralization, privatization, strategic planning and management, new accounting techniques, financial efficiencies, result measurement and bifurcation of politics and administration (Barelay, 2001; Hood, 1991; Lane, 2000; Peters, 1997). These reforms were exercised under the umbrella of New Public Management (NPM) (Aucoin 1990, Hood 1991).

Although the process of NPM earned criticism for not being considerate to public sector peculiarities (Brown, Water House and Flynn, 2003) in all these cases efforts of the public sector have been focused on increasing organizational excellence / effectiveness and efficiency. To achieve the same, various government reforms have been generally focusing on: planning, controlling and reporting about the performance of public sector organization (Hyndman and Eden 2002). Several public sector authors have therefore, suggested various management methodologies e.g. business excellence, model (European Foundation of Quality Management, 1999), the balanced score card (Kaplan and Norton, 1991), the Balanced Score Card (Kaplan and Norton, 1992) as well as Total Quality Management approaches to improve public sector services by making more judicious and proficient use of resources (Massey, 1999; Mc Adam and Walker, 2003).

It therefore, seems to be important for public sector to transit from a system based entirely on financial performance measures to those having more broader base where the activities performed can be made more focused to ensure future success of the organization in its entirely (Hoque, 2005). The Balanced Score Card approach can be a valuable tool to transform a public or government organization and those who have implemented it, are cultivating even greater faith in their belief that dividends of implementing BSC are much greater than the cost (Chan, 2004). There is growing and robust evidence about the utility and feasibility of BSC for not-for-profit organization particularly the government sector (Atkinson and Mc Crindell, 1997; Irwin, 2002; K Loot and Martin, 2000; Silk, 1998).

Though it is claimed that BSC is not a new management practice / system (Dinesh and Palmer, 1998; Johnsen, 2001), that it has some usefulness for some routine and tactical diagnostic and interactive controls but not for exercising strategic control (Van Veen – Dirks and Wijui, 2002), whereas, its effectiveness for the management of business activities has been well advocated both in theory and

It is claimed by Kaplan that potential of BSC to improve public/Government management is even greater. According to him for corporate organization financial perspective takes supreme importance, however, it serves as a constraint for public service (PSO) organizations. Although these organizations also need to monitor expenses remaining within their allocated budgets. But success factor of these organizations is not measured by the fact that how prudent they have been in monitoring their budgets or how much savings they have made out of the allocated budget. Success factor of (PSO)/Government Organizations should rather be measured by the fact that how effectively they have been able to fulfill the needs of their constituencies or at a bigger scale what percentage of laid down national objectives has been achieved by them (Kaplan, 1999) advises that PSO/Government organization should start their journey to BSC by recognizing an over arching objective embodying the essence of the mission statement of their organization, for example reducing poverty, malnutrition, illiteracy, disease, homelessness, pollution, discrimination or improving environment, safety or health care. These high objectives can then be reflected into the other supporting perspectives when cascading the BSC downwards. As the mission objective presents an intermittent progress, therefore, the measures of supporting perspectives would provide the snap shot of short to medium term achievable targets as well as feedback.

Financial and customer perspectives/objectives for a (PSO) or government need rethinking. The role of law enforcement agencies may be sighted as an example here. In the course of performance of its duties, should it look up to its immediate customers to measure satisfaction and loyalty? Certainly not; real customers for such enforcement agencies are mainly the citizens, who benefit from the just, fair and effective low enforcement following laid down regulations. Fig—shows that how financial and customer aspects of BSC can be amalgamated to present a frame work; where a government may have three main themes:
1. **Costing**

This perspective highlights relative importance of proficiencies of organizational operations. The organization needs to minimize direct as well as social costs required in the pursuit of delivering benefits embodied in its mission.

2. **Creating Value**

This theme tends to recognize how the government agency benefits its citizens, which is perhaps most difficult to measure, as it is generally quite difficult to quantify for example the financial benefits of improved education, pollution reduction, improved health care, lowered congestions and safer neighborhoods. But BSC still helps to recognize out puts if not outcomes, from the various activities as well as to measure these out puts. The general public and their local representatives, elected officials/legislators will at the end eventually make judgment about benefits from the out puts and relative cost incurred on those.

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Figure 2.4

**Figure – The Financial and Customer Perspectives for PSOs may Require Three Different Themes**

- **MISSION**
  - Cost of Providing Service – Including Social Cost
  - Value/Benefit of Service – Including positive Externalities
  - Support of legitimizing Authorities:
    - Legislature
    - Voters/Tax Payers
  - Internal Process
  - Learning & Growth
3. Legitimizing Support

The most important customer for any government organization or PSO is its “donor” typically the legislating bodies e.g. National Assembly or Senate providing funding for the government. To ensure continuity of its various activities, government needs to meet the various objectives of its funding sources i.e. legislature Tax Payers and the general public.

Thus any government body or PSO should be able to meet above mentioned three main objectives in order to accomplish its mission: creating value while lowering cost and muster continued support/commitment of its funding bodies. From these three man perspectives objectives may be identified for Internal Processes and Learning and growth perspectives that will in turn enable the PSO/ Government agency to achieve objectives of its above discussed three main perspectives. Once the top level BSC has been achieved the PSO/Government agency like any other corporate or private agency can deploy the process to the lower individual departments.

Making public service oriented to the peoples’ need and at the same time increasing its effectiveness and efficiency is posing a great challenge for the modernization of the Public Sector (Mitchell, 2000), various authors have supported the usefulness of BSC for the public organizations (Chang, 2006; Niven, 2003; Quilivan 2000; Smith, 2000). As matter of fact public organizations can rather accrue more benefits from BSC due to peculiar characteristics of these organizations. However, traditional model of BSC as proposed for the corporate world cannot be directly applied to PSO rather needs modification to make it compatible to the requirements of PSO/Government agency e.g. defence force (Kaplan and Norton, 1996) some of the concerns grow out of the difficulties faced in measurement context of PSO (Wisniewski and Olafsson, 2004). Remaining difficulties are related to the varying relevance of external stake holders (wisniewski and Olafsson, 2004).

In spite of above impediments, lot of evidence exists in the literature supporting successful utilization and implementation of BSC in public service domain (Aidemar, 2001; Amaratunga, et al, 2002; Chan and Ho, 2000; Chow et al, 1998), Police Services (Eleflak, 2001) and Higher Education (Chang and Chow, 1999; Stewart and Carpenter-Hubin, 2001). At the same time implementation of BSC in the public sector has strengths and weaknesses as well as opportunities and threats. Aidmark (2001), out of his experience of working with health care organization, highlights that BSC promotes dialogue, makes it necessary to discuss vision, mission and goals of the organization to the lowest level and also stimulates discussion on strategy. Application of BSC also puts high demands of efficient management, sound education, has high cost in terms of time and human resource and most importantly requires a top down approach. Therefore,
BSC requires an ownership from the highest level of management/administration and strong commitment from all the remaining levels of administration/command right to the lowest level same is required from a defence force organization.

Public service organizations are complex in nature, BSC for these organizations should therefore, be adopted keeping in mind the particular characteristics of these organizations. Wisniewski and Olafsson (2004) have proposed six significant aspects for the implementation of BSC in PSO / Government organizations:

- The process of developing of BSC is equally important as the expected out puts.
- Strategy mapping is important and essential element in the pursuit of successful implementation of BSC.
- In spite of four traditional prospective of BSC, these should be relabeled / modified to make these relevant to the core working of the organization.
- Implementation of BSC is a difficult preposition for those departments of PSO, which are compressed for time and resources.
- Senior management should take the ownership of the BSC process and strong commitment of all those who matter in the chain of command.
- Major difficulties are faced in connecting the scorecards across various departments of the PSO, given the comparative complexities of such departments, which can be resolved using strategy maps.

2.4.1 Global Experience of Public Sector Reforms

It is deemed important to study the global experiences of implementing organizational change and regulating reforms in the public as well as defence sector. Especially the US and UK examples need to be studied in detail. However, the main purpose should be to recognize the necessary pre-requisites of measuring the performance management instead of recommending the systems/ methodologies of these counties for adoption in Pakistan, as the implementation of performance management requires a comprehensive analysis encompassing organization vision/mission, size, cultural and historic background.

2.4.2 Comparative Study of International Reforms in Public Sector
The major emphasis of public sector reforms initiatives internationally is to boost efficiency. For the achievement of this goal, according to (Hood, 1991) following pre-requisites are deemed important:

- The sector should be manned by the core professionals.
- Performance parameters should be tangible and measurable.
- Greater emphasis should be on the measurement of outcomes and the achievement of objectives instead of only measuring output of a certain activity.
- Efforts should be to bring down the organization size.
- A competitions based culture should be promoted.
- Introduction and implementations of successful methods used in the relevant public sector be encouraged.
- A disciplined and cost effective use of resources should be encouraged.

The outcomes of new public sector reforms were reviewed in an OECD study involving ten countries: Australia, New Zealand, France, Neither land, United Kingdom, Denmark, Finland, Sweden, Canada, and the United states (OECD, 1997). The study undertook the review of performance management initiatives from four different aspects: objective and the main focus, the approach adopted, organizational arrangements and the performance information systems.

2.5 Measuring Performance in Defense Forces

Measurement of performance in public sector and defense services has gained prominence over the past few decades. Before that most of the influence was on adhering to laid down rules and regulations, which without a doubt still remains the main requirement, however, new management dimensions are also taking roots that need to be addressed. With the contracting / slowing down international economic environment and shrinking national defence budget, it is becoming imperative to make defense service more efficient, learn and adapt without compromising the competitive edge. (Kiraly, 1999).

It’s a well known fact that Pakistan still falls in the group of countries having hire defence spending as a proportion of her GDP on the cost of other vital public sector programmes i.e. Education, Health and energy. The much desired reduction in defence spending entails introducing more efficient and result oriented management practices to achieve strategic National Defense objectives in a cost effective way.

2.5.1 Controls as Tool for Measuring Performance in Defence Forces
The controllers’ institute of America was established in 1931. The institute started publication of a Journal, which was titled as, “The controller” (kormendi, 2002). The controlling mechanism started taking its roots in Europe at the public and defense departments’ level in 50s and 60s. In Pakistan at Defense Headquarters level a Ministry of Defense representative as Financial Advisor (FA) is entrusted the task of controlling / advising on the financial matters. However, instead of working systematically, much is left to the wish and whims of FA (Navy), (Army) or Air Force. The efficiency of any defense service depends upon the efficiency of its procurement rules and supply chain mechanism. However, in Pakistan Defense procurement system is very slow. Generally it takes one and half year for a procurement needing government approval to materialize. Major reason for this is the use of primitive and conventional methods which are slow and time consuming and neither these help in ensuring austerity or effectiveness, whereas, this inefficiency by government agencies is justified in the name of ensuring financial discipline and check & balances. On line contracting / procurements which has become norm in most of the countries around the world, yet have to find acceptance and will to implement with the powerful bureaucracy of defense and finance ministries.

The main function of controlling being a sub system of overall management is to analyze critically not only financial rather all the organizational activities with an aim to generate necessary data/ information for the top management to make necessary interventions (Jenei, 1995).

Horvath and Merzaros highlights that the controlling does not affect the working of a manager for achieving desired results, it just provides the necessary transparency for taking judicious decisions, and provides information support for making right decisions and coordinating the management functions (Horvath-Mesgaros, 1997)

### 2.5.2 Controls Classification in Defence Forces

The widely known control classification was made by Willian Ouchi, who divides them into bureaucratic, market and raw controls. Bureaucratic style professes strict adherence to the laid down rules and regulations. This style of controlling prevails in Pakistan as well, where defense services have been provided with the government publication, Financial Regulations, which gives clear procedure to be adopted to spend allocated funds and it also stipulates the financial powers for the various tiers of command. At the same time to regulate the conduct / behavior of the personnel, regulations in the shape of Army / Navy & Air regulations along with respective service manual of laws are promulgated. On the other hand the ‘market Control implements the standards which are mostly translated into financial for the purposes of measuring the output as well as efficiency of the Processes. However, both the control
mechanisms envisage that the performance of the personnel and organization units should be measurable either through output or through evaluation of the efficiency of the processes. (Bodnar et al, 1996).

In term of timeframe, there are three main sub categories of controlling i.e. task control, management control and strategic control. A well functioning and well conceived control is the one which embodies all the three above requirements; however, all the three demand different set of tools and approach (Horvath 1995). (Anthony 1988) explains, that management control is mechanism which provides leverage to manager to exercise influence on the personnel to achieve the organization’s strategic objectives.

One of the major differences between the strategic and management control is of regulatory and frequency (Anthony, 1988). Strategic plans are not changed frequently but are rather modified with change in own or competitor’s ability or because of the substantial change in the environment (Anthony, 1988).

2.5.3 Exercising Control Function in Defence Organization

Controls cannot be expected to help complete realization of plans, because plans are made on the past assumptions, which may not be valid for present time and space. And if the underlying assumptions change, the plan itself should be changed, to make it achieve the overall strategic goal.

In order to steer an organization towards its ultimate objectives, it is important to know the difference between planned and the actual cost to have an idea about the deviation so that the corrective measures can be applied timely (Csikos et al, 1993). However, it is crucially important that while trying to locate the gap between planned and actually achieved outcomes/ objectives, a conscious effort should be made to avoid falling into corporal style approach to eliminate the fear factor, otherwise employees would become more interested in covering up the actual reasons / factors responsible for below the targeted achievement presenting false or cooked up results (Hurton, 2002). Instead of locating the culprits, controlling should adopt a forward looking approach to draw important lessons for making right intervention for future performance (Salamon, 1993). The sole aim of controlling function should remain to generate important & realistic information/ data for the top management to facilitate in effective decision making (Bodnar, 2001), as management tool, inherently has a built in controlling and measurement character, an exploratory research is therefore, deemed important before its application in Pakistan Defense Force to address the above mentioned concern, for which a separate research and
survey would be required, as the sole aim of this study is to find the applicability of BSC as a performance measurement tool for Pak Defense Services.

2.5.4 Introducing Controls in Defense Organization

While trying to introduce controlling mechanisms in a bureaucratic organization like defense, following laws should be taken into account due to sheer size of the defense organization:

a. **Law of Imperfect Control.** According to this law, large organizations cannot be controlled perfectly thus right from its inception we are confronted with the limitation.

b. **Law of Decreasing Control.** This law stipulates that, larger is the organization, weaker is the top management control on its employees.

c. **Law of Decreasing Coordination.** This law states, that coordination among various activities and departments decreases with the increase in the size of the organization, (Gulya’s, 2002).

Above laws are the limitations those should be given due consideration while planning to implement the controls in a large organization like Pakistan Defense services.

2.5.5 US Experience of Performance Management in Department of Defense

In USA the General Accounting Office working under the supervision of congress defines the basic principles of auditing and accounting. It also lays down the standards for auditing programmes and functions being undertaken by the government public and defense institutions. The salient working principles of this institute are as follows:

“The basic principle of a democratic society is that the government and its related agencies involved in the handling of public money and exercising the right to allocate and expand it, should also bear the responsibility of being accountable for their activities. This accountability of government should not only include the public funds, rather should also cover the ways/ methods of expanding the public money and its related implications (Herbert et al, 1988).
The General Accounting Officer, while reporting on the performance of department of defense (DOD) for the year 2000, highlighted numerous deficiencies. As per the performance plan of DOD, it is aimed to achieve the following outcomes:

- To maintain the technical superiority of US forces in the key military capabilities.
- To maintain a sufficient number of well trained and highly motivated personnel.
- To maintain a higher level of operational readiness on continuous basis.
- Maintaining an efficient and cost effective infrastructure as well as operating systems.
- To sufficiently eradicate the availability and use of drugs.
- Incurring only few erroneous payments.

The study found that it was not possible to measure the progress that DOD had made to secure the required outcomes, as these were too complex, the boundaries transgressed each other, therefore, required several years to ensure practical achievement. It was therefore, difficult to chalk out path for the practical realization of both strategic objectives and outcomes.

According to the study, some of the performance indicators like the procurement absorbing most of the cost for achievement of technological edge could not provide a linkage to the required outcomes. It also becomes difficult to measure the progress and performance comprehensively, as in certain areas the performance indicators were met, while it was not the case with others and in certain cases the performance indicators had reduced over the period of time. For most of the observed discrepancies between the planned and displayed outcomes, DOD could not put in practice appropriate strategy or measure, to achieve the intended performance. In future public sector organizations will have to transform their culture to be more outcome oriented and customer focused (GAO, 2010). It needs at least 5 to 7 years to make a cultural shift to adapt a radical change.

2.5.6 The British Experience

British public sector reforms were initiated in 1960 and 1970 following the Fulton report. In 1982 the financial management initiative was published. As a result of these initiatives, in 1995, the programme aimed at transition to resource accounting and budgeting was started (Ashton et al, 1991).

In pursuit of the above programme, it became the obligation of Public and defense departments to submit the following reports to UK parliament:
a. **Summary Resource out term.** A comparison of resources planned for a certain activity and actually spent on it and the reconciliation of left over resources.

b. **Operating Cost Statement.** Category wise statement of cost of resources used.

c. **Balance Sheet.** A snapshot of assets and liabilities of a department.

d. **Cash Flow Statement.** To highlight the liquidity health of the department by clearly showing the source of funding, their expenditure and the amount of cash available.

The above reports were also required to be complemented by a general analytical report on the overall performance of the department to shed a light on the intangibles involved (Resource report, 1999).

The British government has rightly realized that in order to have an cost effective management, it is important that resource allocation be made to public and defense departments keeping in mind the departmental objectives and the outcomes attained should be compared accordingly i.e. only those activities to be finalized that help achieving the desired outcomes.

The British government as part of public/ defense sector reforms has also institutionalized a resource control mechanism. Following requirements were defined for this control system:

- It should be clear and transparent system, which is thoroughly understood and accepted by all.
- It should embody specific, measurable, achievable, realistic and time bound (SMART) objective.
- It should be linked to certain performance Indicators PIs, which are driven from the organization’s strategic objectives and cannot be easily manipulated
- The data substantiating these PIs should be accurate and reliable.
- The feedback should be as candid as possible.
- The system itself should be cost effective.
- It should create an atmosphere of trust and confidence.
- It should be able to measure both resources expenditure and performance as well.
- It should give a clear picture to the top management about the output as a result of their activities so that timely and right interventions may be ensured. (UK Resource Report 1999).

### 2.6 Measuring Performance through Balanced Score Card
Performance Management within corporate sector is common and is being practiced since long. because it took its roots mainly for the purposes of financial control and reporting within or outside of an organization; focusing mainly on the financial indicators and having only cursory links with the strategic plans or operations. Since 1970 for example major focus in the US remained on the short term profitability while managing performance with financial orientation. However, since 1980, in this globalized and ever changing environment; lack of strategic planning and initiatives has rendered many organizations across the world; less dynamic and competitive. The negative effect of financially focused management is that it does not provide comprehensive information about multi faceted changes taking place in the arena of strategic importance. According to Nilsson and Kalid(2002) in the back drop of this debate number of new models for performance management were presented. Many of them got lot of public attention and most prominent of all these was the BSC (Kaplan and Norton, 1992).

Over the years, the BSC has transformed from a mere performance measurement tool to an instrument for implementing strategies (Kaplan and Norton, 1996). It also provides a framework to align the informational, human and organizational capital with the strategy (Kaplan and Norton, 2004). This paradigm shift has influenced the companies to view BSC as a strategic management and communication system and has generated a significant debate about issues concerning implementation of BSC, which were not previously documented. (Papalexandris et al, 2005) suggest that BSC helps fostering balance in the following aspects of organizations:

- Between the short term and long term objectives.
- Between leading and lagging performance measures.
- Between quantitative and qualitative measures.

However, BSC has been subjected to criticism as well. Norreklit (2000) has raised questions about the cause and effect relationship among BSC elements. Papalexandris et al.(2005) have pointed towards the little attention paid to the variously critical supporting factors i.e. IT infrastructure development, Project management, quality assurance, change management and risk management are considered critical for the effective implementation of BSC. Bontis et al. (1999) have also made following two critical statements about BSC:

BSC is rigid in its design. This rigidity is visible in most of the aspects of the BSC. Firstly the identification of Key Success Factors (KSFs) is perspective driven. It poses a limit because most of the KSFs are cross perspectives, having relation or impact on various dimensions of the intangible resource of an organization. It may however, not be a big issue if the management can successfully recognize KSFs in their stand alone capacity. This carries an imbedded danger i.e the attention of the management
may be mostly absorbed by the perspectives in the wake of which some of the important KSFs may be missed just because it could not neatly fit into any of the category of perspectives. On the other hand perspectives may also be limiting. Kaplan and Norton themselves profess that four perspectives should not be taken as strait jackets and organizations may expand or delete the perspective as they deem fit to their strategic objectives and the vision, but these should be treated as specific classification of possible measures. This contradicts Kaplan and Norton's earlier assertions. Furthermore the perimeter of external environment is limited to the customers, whereas, companies and organizations do have an important relationship capital associated to some important external actors such as, partners, suppliers, local community and finally consumers.

BSC is also less considerate toward employees. Personnel have been grouped together as an IT department and system within Learning and Growth perspective. Furthermore, innovations i.e. (the learning over the period through human actions) forms the part of internal processes perspective. It seems BSC takes the human innovations as routine matter sounding as if the organization can do without it. As consequence BSC tends to undermine the management of personnel as well as their learning and the knowledge gained in the course of performance of their jobs. BSC treats the knowledge as a physical commodity. This misperception is liable to reinforce the common mistake made by most of the organization believing that setting up a robust IT infrastructure shall automatically help in managing the knowledge.

Papalexandris et al. (2005) have highlighted another weakness of BSC, which states that methodical approaches for implementing BSC vary from Project to Project in a significant way in content matter, sequence, phases and number of implementation steps involved, and are specific to a particular company or organization which cannot be generalized to other organizations or market segments. This shows that BSC is a concept rather than an algorithm to overcome various weaknesses of evaluation and measurement systems.

2.6.1 Emergence of Balanced Score Card

The Balanced Score Card (BSC) has received tremendous impetus and acclaim by the west, especially in US and particularly by its protagonists coming from the elite Harvard University i-e Professor Robert Kaplan as well as David Norton. The Transformation of this performance measurement concept to an elaborated tool of strategic management has been comprehensively documented in Harvard Business Review essay (Kaplan, 1994, Kaplan and Norton, 1992, 1993, 1996 a) and has been discussed at length in Kaplan and Norton’s book “The Balance Score Card: Translating strategy into Action” (Kaplan and Norton, 1996 b). Regular surveys also claim that BSC is being increasingly realized as the key element of
an organization’s strategy implementation (2GC Limited, 2014). For a layman the concise explanation of BSC concept may be:

“Kaplan and Norton have in fact forwarded a unique perspective of management that helps translating any growths strategy into actionable constituents” this is the shallowest explanation of this concept, as the protagonists Kaplan and Norton also state that:

“The BSC helps in translation of Mission and strategy of an organization into an elaborated set of performance measures and give a framework to conduct strategic management as well as measurement (Kaplan and Norton, 1996 b). Above narrations though give somewhat simple overview, but still much short at giving the full scope of radical changes brought in by BSC to the management world. BSC elaborates and concentrates on the critical success factors (CSFs) forming backbone for the fulfillment of organisational goals thereby ensuring future success. This is ensured by close monitoring and understanding of the cause and effect relationship amongst various internal and external variables considered operative and contributory in the overall management domain. The complete business environment is divided into four key perspectives Fig-1.

Table 2.3

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<th>Key Perspectives</th>
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<td>Financial</td>
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Additional perspectives given the peculiarity of an organization or some unique internal or external factors having strong bearing on the overall performance can also be included. An example of Performance Measurement action Team, a US government management body which monitors the procurement practices of US government may be relevant in this regard, as it identified and found it relevant to include “employee Empowerment” also as one of the key perspective of their BSC focus (Kaplan and Norton, 1996 b).

2.6.2 Theory and Application of BSC

BSC has been implemented successfully across a number of industries and in the public sector within USA. Application within public sector has been discussed at Length (Tonga, 1996) and many successful
accomplishments have been documented. All of these have reported favorable outcomes and generally no failures have been reported, but number of pitfalls and handicaps in the course of Application of BSC, which vary from organization to organization (Kaplan and Norton, 1996). BSC concept is not simple in its application and requires thorough understanding of the fundamental principals involved. Above all, it demands strong commitment to accept and fully imbibe the philosophy while implementing the needed change.

Ample evidence is available that supports the theory that BSC does provide a medium to deliver and secure a strategic vision. At the same time provides a comprehensive evaluation system. Numerous case studies as a physical proof support this theory. Furthermore, BSC concept has also been approached by various disciplines of management perspective. The accountancy perspective of BSC has been widely considered. (Booth, 1996, Corrigan, 1995; Hussain, 1996; Mc Williams, 1996; Newing, 1994). The performance measurement aspect of BSC has received lot of attention and interest (Birchard, 1995, Brown, 1994, Lingle and Schliemann, 1996) usefulness of BSC has also been linked to total quality Management aspect as well (Cortada, 1994). The capability of BSC concept to measure performance has been considered through some valid and unique perspectives (Davis, 1996, Feurer; Smith, 1993, Vantrappen and Metz, 1994).

Traditionally corporate organizations tend to measure their performance considering financial aspects. However, stand alone financial measures do not give the balanced view of critical fundamentals. Furthermore, core success factors of an organization shall never be understood (Sanger, 1998).

The (BSC) is somewhat similar to theory “Y” developed in 1960 by McGregor. Theory, ‘X’ also propounded by McGrger assumes that, “Human being has inborn dislike for the work and will avoid it if he can” (Dinesh and Palmer, 1998). Whereas, theory, ‘Y’ assumes the opposite of the theory, ‘X’ and states, “The human being finds work as natural as play or rest”. McGregor, therefore, concluded that, if an employee is involved in the goal setting process, he can be better relied upon for self discipline and self control. Productivity can, therefore, be better ensured through clarification of strategically aligned goals” (Dinesh and Palmer, 1998). After a span of 40 years, BSC is also based on the very concept of goal conformity to improve performance, (Dinesh and Palmer, 1998).

While associating BSC with theory, ‘Y’, it should be noted that theory, ‘Y’ tends to deal with individual performance, whereas, BSC deals with overall organizational performance. Notwithstanding the above, comparing and linking the two performance measurement systems makes sense given the fact that sum of individual performance results in the overall performance of an organization. What makes BSC prominent is its ability to give holistic view of management performance and defining performance
measures while communicating vision, mission and objectives across all tiers of management (Roest, 1997).

2.6.3 A Paradigm Shift in Measurement and Management

Considering the existing performance measures obsolete and irrelevant, this mostly used to rely on financial measures as the bottom line. BSC concept was developed and emerged as one of the innovative performance measurement tool for the corporate world (Kaplan and Norton, 1996 b). Most importantly this innovative approach can also encompass the intangible i.e. ‘soft’ factors, which previously regarded as immeasurable or of little importance. The term ‘Balanced Score Card’ as such represents a state of balance amongst, Leading and Lagging indicators, non financial and financial measures, Long term and short term objectives and internal as well as external performance domains.

In the wake of successful outcomes about numerous projects completed under the umbrella of BSC, it comes to light that BSC can also be used as medium for the communication and alignment of any strategic approach. BSC remained a success story for the corporate world, because fundamentally it was successful in the identification of right linkages amongst the four key perspectives which are the main source of delivering perpetual success.

It is therefore, important to note that BSC basically is a concept rather than a tool, whose success actually depends upon the rightful recognition of key perspectives of an organization considered central to the core mission of an organization. The additional value of the BSC is the fact that it draws together the key management perspectives and helps in establishing and exploiting linkages that deliver success. The very fact that decision taken in our management area has its direct or indirect effect on other areas can be recognized prior the implementation of such decision; presents more strategic visibility than it is normally expected. Such holistic approach has better performance prospects, resulting into much better informed decision making. (Hoffecker and Goldenberg, 1994).

Over the time BSC has transformed itself from an innovative tool to proven management concept or system (Kaplan, 1994). Many case studies have supported this success story: “Diversified holdings Company’s Chemical Division” (Vital et al, 1994), “Mobil use of marketing and refining Division” (MC Williams, 1996), and Pepsi “Dashboard” (Jensen and Gerr, 1994/95).

2.6.4 A Universal Solution to Management

Most of the BSC case studies with favorable results have emerged from USA with respect to US Corporate as well as public perspective. The concept with same intensity of success has not yet been
reported from other developed countries. A number of possible reasons could be speculated, but these would remain conjectures serving no purpose. As a practical step use of BSC within British hospitality industry under study has been considered. (Brander Brown and McDonnell, 1995). It is being realized that BSC emphasizes vision and requires the management to be dynamic and forward looking rather than focusing only on control fundamentals. This approach allows the management to understand number of interdependencies and inter-relationships amongst various factors active within the organization, and it can help achieving a balance between internal and external variables through recognition of tradeoffs amongst them. The learning of UK hotel industry managers,’ onside with the claims by Kaplan and Norton. The pilot study conducted in UK concluded in the form of development of BSC for real operations, this however, has highlighted certain weaknesses, which could be classified as hoteling industry specific and need further research. A few of them are listed as under:

- Common Staff Function (CSFs) and performance measures for the industry need to be specified after a thorough research.
- Employment of BSC at company level and subsequently at the management level.
- Identification of Performance Measures (PMs) related to Common staff functions i.e guest satisfaction, Marketing and morale of the personnel.

In these intangible and soft aspects, it was felt that BSC became somewhat hampered. However, Kaplan and Norton the protagonists of BSC claim that BSC is unique measurement tool only because it has the ability to measure even intangibles. Most prominent example of BSC application within UK till to date is, the British Army, especially by the victualing Service of Royal Logistic Corps. A UK based study also supports the suitability of BSC for food and catering services (Heyworth, 1997).

2.6.5 Linking BSC Measures to Organizational Strategy

The ultimate objective of any measurement system should be to motivate personnel to fully understand and implement organization’s strategy. Companies / organizations having ability to translate their respective strategies into measures are in a better position to execute strategy because their objectives and targets can be communicated to the lower echelon (Kaplan and Norton, 1996). Thus the success of a BSC pivots on its ability to communicate organization’s strategy through financial or non financial measures, as explained in Fig-2.5
It is important to build a Balanced Score Card that communicates an organization’s strategy due to following reasons (Kaplan and Norton, 1996):

- It describes the organizations future vision to the whole organization. It generates a shared and common understanding.
- BSC creates a holistic strategy model, which allows the employees to view how they contribute to the success of the organization. In the absence of such linkage departments may optimize their performance but fail to contribute to the achievement of strategic goals of an organization.
- BSC focuses on the efforts being undertaken for change. If the recognition of objectives is correct and valid measures are identified, desired change can be implemented successfully.

The litmus test of a BSC whether it imbibes the organization strategy fully or not or whether it communicates outcomes and the performance drivers is its transparency. All outside observers should be able to look behind the score card and should be able to see the organization strategy underlining all objectives and measures of the score card.

There are three main principles which help linking an organization’s balanced scorecard to its strategy (Kaplan and Norton, 1996).

1. Cause and effect relationship (explained in Fig-2.3)
2. Performance Drivers.
2.6.6 Placing Number of Measures on a balanced scorecard

Higher is the number of measures of a BSC the more complex it will become. BSC should be viewed as an instrument of a standalone single strategy, in such a scenario the measures on the score card become irrelevant, as all the measures on the score card are linked closely in a cause and effect relationship. Most organizations have 16 to 25 measures to keep themselves functioning. They may be correct in a narrow sense but perhaps they remain fail to understand diagnostic measures (Simons, 1995).

The outcomes and performance measures on BSC should be an outcome of intensive interaction amongst senior and middle managers while they are re-evaluating strategies in the light of new knowledge and new information about technologies, customers and competitions (Simons, 1995). At no stage the measurement system of an organization should encourage an under optimization mere for a single measure or for a single perspective. To avoid cluttering score card with unnecessary or irrelevant measures, organization should use diagnostic measures in order to balance the strategic measures on the score card (Kaplan, 1990).

2.7 BSC Perspectives

In the background of above discussion, Kaplan and Norton have suggested four major perspectives of an organization needing focus of the management to ensure a balanced growth of an organization or enterprise which have been discussed as under:

2.7.1 Financial Perspective

BSC retains Finance as perspective due to its usefulness of measuring “economic consequences of actions taken by the managers”. The financial measure highlights as to what extent the organization’s strategy is contributing to the bottom line growth. Financial measurement typically has its bearings on profitability measured through operating income, return on capital invested and what economic value has been added.

2.7.2 Customer Perspective

In this perspective managers are to identify the market segment and the customers or the stake holders in which company or an organization is expected to compete. This perspective focuses on certain well deliberated and well formulated measures which could be core as well as generic in nature to measure
outcomes of a well thought out organizational strategy (Kaplan and Norton, 1996). Some of the core measures for example could be: Customer’s / Stake Holder’s satisfaction, retention, new customers acquisition, profitability from customers, changing behavior of the market and percentage of the market captured as well as the future scope. Now the specific drivers for the core customers could be those factors that make the customers loyal to a company / organization or make them switch to other suppliers / company; for example “short lead time”, “on time delivery” or, “innovative products or services” The customer perspective enables the company / organization to anticipate emerging customers/ stake holders’ needs and facilitates them to change or modify their strategy accordingly.

2.7.3 Internal Processes Perspective

This perspective allows the executives and managers to identify critical internal processes in which an organization needs to focus and excel. For example in case of Defiance Forces such processes could be: recruitment, training, evaluation, procurement and research and development etc. Such processes enable an organization to:

- Deliver value to the customer / stake holders to earn their loyalty and to create attraction for further customers and stake holders.
- To maximize share holders wealth.

The related measures of this perspective have greater focus on achieving customers/stake holders satisfaction and financial objectives of the organization (Kaplan and Norton, 1996). The fundamental difference between traditional approach and BSC approach toward improvement of internal processes is that BSC emphasis on identifying new processes on which an organization must excel to achieve both customer and financial objectives (Kaplan and Norton, 1996). On the other hand traditional approach tends to improve existing process with a focus to enhance the bottom line. The second major difference of BSC approach is that it includes, “Innovation” as a process in the chain of Internal Process Fig- 2.7 Whereas traditional approach is mostly concerned to deliver existing products to existing customers, and tries to improve ongoing operations, which points to a short lived value creation. But the drivers of long term financial success may require an organization to create altogether new products and services which can fulfill the needs of existing and future customers / stake holders. This is where innovation process of BSC as, “Long Wave of Value Creation Comes into Play”.
2.7.4 Learning and Growth Perspective

The purpose of learning and growth perspective of BSC is to create an infrastructure that allows and facilitates an organization to make improvements for long term growth. It therefore, identifies the critical factors important for current as well as future growth. Organizations embracing and becoming fixated only with the existing expertise and the technologies may not meet future needs of the customers / stakeholders (Kaplan and Norton, 1996). On the other hand after becoming a global village in an information era only those organizations shall be able to face the global competitions which are willing and ready to change and improve their goods and services on continuous basis.

The learning and growth for an organization emerges from three major sources: organizational procedures, systems and the people (Kaplan and Norton, 1996) the thorough analysis of financial, customers / stake holders and internal processes perspective will reveal gaps among existing capabilities of systems, people and procedures compared to those required for breakthrough performance. To bridge these gaps upon identification, organizations are required to undertake deskilling the people, equipping with new IT systems and aligning procedures and routines (Kaplan and Norton, 1996). All these objectives are articulated within learning and growth perspective of BSC.
2.8 Evolution of Balanced Scorecard

(Gavin and Lan, 2002) have characterized various definitions of BSC into three generations of Balanced Scorecard. This classification has improved the understanding of BSC working and application as a strategic management tool. The main addition to the BSC literature by both the researchers is to minimize the risk of failure of BSC application, as BSC application needs to reflect the idea of information asymmetry and the understanding of the process of strategic control by the organizations.

2.8.1 1st Generation Balanced Scorecard

Since its inception Kaplan and Norton have not provided a clear definition of Balanced Score Card, rather have emphasized how to put to use a BSC. However, from their number of articles published since 1992, various attributes of BSC can be deduced, which are listed as follows:

- It is a mix of financial and non financial measures (Kaplan and Norton 1992, 1993, 1996a, 1996b).

- Caters to limited number of measures (Kaplan and Norton, 1992), between 15 – 20 (Kaplan and Norton, 1993) and 20 – 25 (Kaplan and Norton 1996b).

- Measures have been grouped as four distinct elements, which are known as perspectives: “Financial”, “Customer”, “Internal Process” and Innovation and learning, (Kaplan and Norton, 1992, 1993, 1996a, 1996b). The last two measures were later modified to “Internal Business Process” and learning and growth (Kaplan and Norton, 1996).

- Measures must be accepted with the endorsement of top management of the organization, as they are having access to the strategic information (Kaplan and Norton, 1992, 1993, 1996a, 1996b).

- The 1992 and 1993 papers show links between above mentioned perspectives, however, these links have not been discussed in detail. The 1996a paper by Kaplan and Norton attempts to discuss casual relation between perspectives in a way that suggest certain features of 2nd Generation BSC. 1996 book by both the above authors professes causality between performance drivers (leading measures) and the outcomes (lagging measures) (Kaplan and Norton, 1996c).
The Balanced Score Card that conformed to the above mentioned design of four basic perspectives is known as 1st Generation BSC (Gavin and Lan, 2002).

Due lack of clear definition from Kaplan and Norton, gave way to several attempts by others to list a definition of BSC (Moorag, Oyon and Hostettler, 1999), which are compatible to 1st Generation definition mentioned in the preceding paragraphs, wherever, alternate definitions have appeared these suggest either a change in the number of measures, or a change in naming the perspectives (Bringnal, 2002). The literature has generally endorsed the usefulness of 1st Generation approach (Manzoni, 1997), however, certain weaknesses have also been noticed in the initial design and the various improvements have been recommended, both in the BSC designing concepts and the method (Woldersee and Neely, 2000).

2.8.2 Need to Modify Balanced Scorecard

Since its inception it was evident that methodology to select various measures for BSC would be quite critical for its latter success, both in terms of delineating/filtering i.e. (organizations generally have many measures, than the number required to populate the BSC) and clustering i.e. (The process of deciding that what measures to appear and in which perspectives). In their first paper Kaplan and Norton have mentioned very little about how to undertake the measures selection activity, other than narrating the general design philosophy (Gavin and Lan, 2002). A number of design challenges were presented by the
1st Generation BSC (Butlor, Letza and Neely, 1997). Similarly affects of weak measure selection on the effectiveness and usefulness of BSC were noticed by many researchers (Schieman, 1996).

Various general approaches to 1st Generation BSC were mentioned in a summarized form (Kaplan and Norton, 1993) and latter in detail in 1996. Though these were helpful in laying down a wider plan, but were limited in detail on making the BSC design choices. This gave birth to the Idea of “How to” books as well as articles, which tried to fill the void (Bourne, 2000). Such publications in fact have presented solution to the problem. This was mainly due to the fact that definition of an effective design process was dependent upon changes being made in the design features of the Balanced Score Card (Gavin and Lan, 2002).

2.8.3 2nd Generation of Balanced Scorecard

The practical difficulties related with the designing process of 1st Generation Balanced Score Card were numerous, some due to the vague definition of Balanced Score Card at the initial stages. Some difficulties emerged from the design questions confronted by the 1st Generation Balanced Score Card, particularly in the domain of filtering and clustering the initial proposal by Kaplan and Norton to measure selection (e.g “To succeed financially, how we should appear to our share holders?”) was recognized as weak and was quickly replaced with the concept of “Strategic Objectives”. Pointed short sentences to describe the nature of the goals were included in 1992 proposed by Kaplan and Norton. The innovation was to highlight the need for direct mapping between various strategic objectives associated to each perspective, or more than one measure. This additional step for measure selection process has transformed the design process from the one which was initially proposed, as it particularly helps in sorting out the filtering issue. The priority of one measure over another was justified by the strategic objective itself out of number of possible measures in respect of each perspective.

The key innovation at the second stage was related with causality. As discussed earlier, that initial attempts to measure causality were quite weak. During the period from 1992 – 1996 efforts were dedicated to find ways to locate and show causality amongst measures. Linkages based on measures provided an improved model of causality but at the same time highlighted some conceptual issues for example encouraging and recommending the use of different forms of analysis to validate the measure selection process on the basis of numerical correlation between the measures (Brewer, 2002). Though such methods are efficient for measure selection process, but are difficult to integrate with the need for Balanced Score Card design, which may reflect the agreement of users for the device referred as key
characteristic above. With the passage of time strategic linkage became important element of BSC designing methodology.

Since 1990, showing graphical linkages between measures within the strategic objectives themselves; along with causality linkages across the perspective of Financial Performance was introduced. This major transition was graphically presented by Kaplan and Norton in their 1996 papers. The one published at the start of the year 1996 showed linkages between measures (Kaplan and Norton, 1996a), whereas, the second paper presented possible linkages between strategic objectives (Kaplan and Norton, 1996b). At that time, the graphical presentation showing linkages between objectives was named, ‘Strategic Linkage Models’ which are now commonly known as ‘Strategy Maps’.

This evolutionary transition of Balanced Score Card was named as ‘From an improved measurement system to a core management system’; thereby maintaining a focus on the basic fact that a BSC should help in strategy implementation. Collectively such changes in the basic design of Balanced Score Card brought up a different definition of BSC than the one discussed as 1st Generation in the preceding paragraphs. The two main enhancements that occurred in the basic design of 1st Generation BSC are as follows:

1. Measures are selected based on their specific relation with the strategic objectives; the basic aim of the design is to locate/identify 20 – 25 strategic objectives each related to one or more measures and assigned to any one of the four perspectives (Wetter, 1999).
The casual relationship among objectives is documented graphically, and the results are presented in the form of ‘strategy maps’.

The BSC that embodies above mentioned modifications/developments is called the ‘2nd Generation Balanced Score Card’. The elements of 2nd Generation Balanced Score Card now represent the mainstream thinking of the BSC, as acceptance of this definition shows general consistency amongst a number of practitioners and academicians (Niven, 2002), with the graphic presentation of the objective linkages, the short titles were also needed to fit them on the Strategy Map diagrams. Objectives were not being assigned to the owners of the specific management functions and the measures to the objectives. Earlier BSC software began to incorporate these enhanced design elements using E-mail as well as diary system for speedy diagnosis and interventions. This enhanced feature of storing and working with such characteristics is now a mainstay of leading BSC system (Neely, 2001).

2nd Generation Balanced Score Card shows substantial improvements as compared to the Balanced Score Card design of the 1st Generation. It addresses a number of weaknesses of 1st Generation BSC, and facilities the use of rather a less challenging design of BSC. However, some concerns are yet persistent mainly due to definition weaknesses. In case of first Generation such concerns were mainly focused on the measure selection process, “Filtering”, whereas, in case of 2nd Generation BSC design same were focused on the process of grouping the measures “Clustering”. The standard layout of the BSC model shows the causality across the four basic perspectives i.e. from “Learning and Growth” through, “Internal Business Process” and “Customer” while ending up at “Financial”. Some critiques have emerged, suggesting that such causal flow for some of the organizations may not be appropriate. In part it is due to the fact that it overlooks/misses some of the important clusters (Neely, 2000) or the causal links are not properly justified (Nerreklit, 2000). The common theme of all these concerns is that there is a need to enhance the confidence that BSC properly embodies and reflects the strategic objectives of the organizations, and the linkages shown across various perspectives through strategy maps are meaningful.

Practically organizations involved in developing second generation BSC confronted many problems in terms of both measures selection and as well as setting the targets (Barney et al, 2004) such problems were also faced while cascading the BSCs to the lower levels of management tiers (Banker and Chang, 2004). These problems are related to the weaknesses in the design approach related to the specific design activities. In the designing of the 2nd BSC, it is assumed that individual understanding of vision and mission and the strategic planning, on which the BSC is based, is shared among all the management team, prior asking the members to indentify and agree with the actions as well as results finally leading to the achievement of BSC design. One of the weaknesses of 2nd Generation Balanced Score Card is that it does not clarify who is to make the selection of strategic objective (Kaplan and Norton, 2000). The original
design approach of 1996 as proposed by Kaplan and Norton suggests that a small group of key personnel should first analyze the organizational strategy with the help of source consultants. Such analysis must then help to select priorities and the strategic objectives on behalf of the management team. Any failure to use a collective approach might fail the strategy itself of an organization (Mintzberg, 1990) as well as the implementation due to lack of general consensus and support by those who are supposed to implement the strategy (Thomson, 1967). The other important aspect of 2nd Generation Balanced Score Card is that it recommends decoupling the selection of strategic objectives from any causality among them. Cause and effect relationship is considered, “Post-hoc” only.

2.8.4 3rd Generation Balanced Scorecard

3rd Generation Balanced Score Card is in fact a refined form of 2nd Generation Balanced Score Card. However, some new features have been included to enhance the functionality and strategic relevance in order to address the practical issues related to the 2nd Generation BSC design. These new developments actually originated from the problems related to the selection of strategic objectives and the setting of the targets. This triggered in 1990, the development of another design element; “Destination Statement”. Initially “Destination Statements” were created near the end of the design process by challenging the management team involved in imaging its effect on the organization in the process of securing strategic objectives chosen initially in the process of designing BSC. This process of integration helped in recognizing inconsistencies in the chosen objectives which are caused due to the inherent limitations of having only four perspectives as discussed earlier, therefore, the final document became more helpful to validate the targets chosen for some measures. The idea to have a clear statement about what an organization tends to achieve was not new (Senge, 1990). Such a statement was needed as a guiding reference during the process of setting targets.

Soon it was realized that such, ‘Rolling Forward’ in terms of strategy became easy to conceptualize/comprehend when it is associated to a certain future date, (e.g. in two years time) – because all the strategic objectives may not be achievable within a time frame. Due to its role to serve as a target setting device, an effort was made, that statement narrating, ‘How much’ of the key thing to be achieved, should have been achieved by the stipulated time e.g., (Revenues, quality levels, headcounts, customer satisfaction etc). In order to conduct a focused discussion about consequences of a strategy, the statements were broken into various categories.
In the practical domain it soon became evident that the management teams were now able to create as well as relate to the, ‘Destinations Statement’ with ease and without any reference to the objectives selected. Resultantly, the Balanced Score Card design process was reversed with the invention of ‘Destination Statement’ this being the first design activity rather than being the final one. It further revealed that by working from destination statements, the strategic objective selection as well as hypothesis articulation of causality became quite easier, and a consensus within a management team could be achieved much quickly (Kotter, 1995).

Two additional benefits emerging from the use of ‘Destination Statements’ as a part of BSC are elaborated as follows:

1. In the projects aiming to develop various BSC, the ability of Destination Statements to help achieving strategic alignment, without enforcing common objective, created ownership and usefulness of BSC within an organization (Chang and Pizzini, 2004). While providing operational utility in the process of designing multiple BSCs with the help of this added feature. It also removes the presence of, ‘Common Objectives’, which could otherwise reduce the utility of cascading BSC (Banker, et al, 2004).

2. Particularly in Public sector organizations, the typical rigid definition of BSC based on four basic perspectives may cause problems: The alternating labels of application in public sector organizations are quite common (Lyons, 2003). The initial motivation to use four perspectives was basically to encourage the consideration of performance aspects other than financial while selecting measures for BSC. Same
can also be performed equally well through a careful selection of “Category” headings while articulating destination statements i.e. limiting the need of basic four perspectives in the strategic model delineating linkages. Due to selection of strategic objectives using Destination Statements across the four basic categories, the public sector managers find it comfortable to choose “activity” and “outcome” objectives linked to causality only. Therefore, the existence of only two perspectives eliminates the debate about missing perspectives. Aim is simply to see whether the rightly prioritized activities are represented, and consequently correct results produced by such activities are shown or not. Strategic linkage model (Figure–4) based on two perspectives has been documented in the literature for one of the major UK Government department, which also embodied the requirement of cascading such aligned BSC, achieved using 3rd Generation BSC (Lawrie et al; 2004).

![Diagram of Two-perspective Strategic Linkage Model](image)

The BSC design which incorporates, ‘Destination Statements’ and two perspectives strategic linkage model came to be known as, ‘3rd Generation Balanced Score Card’. It has following basic enhancement compared to 2nd Generation BSC:

### 2.8.5 Destination Statements

It’s a description which includes quantitative details of how an organization or a certain department of an organization would look on a certain future date (Edinburgh and Scotland, 2004). Independent surveys also reveal that an increased number of BSC users are using Destination Statements as integral part of their BSC design (2GC Limited, 2013). Destination Statements are further sub divided into some
descriptive categories, which serve a unique purpose (but might have different labels) to the perspectives of 1st and 2nd Generation BSC designs.

2.8.6 Activity and Outcome Perspectives Based Strategic Linkage Model


Destination Statements describing how an organization would look like on a future date and shows the unity / consensus of a shared view about a strategic planning. Its possible consequences are mutually agreed upon before taking any decision about an organizational activity as well as, setting targets for such activities. The survey reveals over 90 percent usage of BSC includes elements specific to 2nd and 3rd Generation (2GC Limited, 2010).

It caters to all the issues associated with 2nd Generation Balanced Score Card in shifting from four perspectives to two perspectives, however, the major difference between the both is how the model is actually designed rather than how it looks. Strategic objectives define important activities as well as their related results so that management teams can focus on short term goals in order to ensure medium to long term achievements of the organization mentioned in the destination statements. The identification of strategic objectives through full participation of management teams and ear marking a starting point in the destination statement, asking questions such as “what to do to reach destination” also deals with the most critical deficiency in the 2nd Generation BSC design. Since its inception, the protagonists of BSC had clearly stated that the main role of the BSC would be to serve as a control tool for the managers. But managers exercise various controls. Such controls are also called by some as strategic controls (Muralidharan, 1997) instead of management controls (Bungay and Goold, 1991). In practical terms a lot of attention has been focused on the application of BSC the purposes of Management Control (Frigo, 2000). This can be partly attributed to 1st Generation BSC, which is used as base for academic Contribution (Kennerley and Neely, 2000).

The transition from 1st to 2nd Generation Balanced Score Card coincided with positioning of BSC as a tool to support strategic controls. Resultantly latter on developments of practical approaches towards designing of BSC focused on achieving consensus with the thinking of top leadership developed over many years. The use of simple causal models supporting articulation of strategic objectives was in sync with organizational change and learning (Burke and Litwin, 1992).
The transition from 2\textsuperscript{nd} Generation to 3\textsuperscript{rd} Generation Balanced Score Card shows a significant change in approaches to BSC design activity. 3\textsuperscript{rd} Generation BSC design has been particularly helpful in developing multiple Balanced Score Cards for organizations undertaking complex activities (Gvidoun, 2000). In addition to above supporting reasoning for 3\textsuperscript{rd} Generation Balanced Score Card, the importance of 3\textsuperscript{rd} Generation BSC is enhanced further due its ability to solve the issues of information asymmetry. The protagonists of the idea of information asymmetry suggest that projecting controls developed strategy into its components for an organization may be problematic (Stieglitz, 1976). This fact is evident from the problems being faced due to negative implications of the “common objectives” in case of multiple BSCs (Salterio, 2000). It has been argued by various researchers that ‘common objectives’ tend to distract evaluators of the BSC, data of the remaining objectives – partly due to the fact that evaluator has better knowledge of the common objectives. This contains the risk of none of the objectives being evaluated effectively except for few. An effective mechanism for the efficient communication of comprehensive local context as well as issues that were central to the selection of strategic objectives is therefore, needed and the ‘destination statements’ have been found quite helpful in facilitating such communication (Lawrie \textit{et al}; 2004).

Various corporate management performance softwares have emerged as a part of solution to centrally collate and assess large volumes of detailed information about the performance and activities of an organization. The prominent feature of such softwares is to dig deep into voluminous information to get to the root cause of various anomalies hampering the performance (Marr and Neely, 2001). However, the school of thought of information asymmetry; actually challenges the usefulness of any such software, as these provide only a partial solution to the problem of information asymmetry. One may have more data but not necessarily more information of the local context to make such data useful. Recent research actually suggests that BSC data in most of the software applications are neither balanced nor useful. Measures are also numerous and mostly focus on financials, the investment in BSC is considered expensive and less useful substitute to traditional paper reports.

In the same way even more complex alternatives to BSC don’t broadly address the issue of information asymmetry (Kennerley and Neely, 2000). The development of 3\textsuperscript{rd} Generation BSC has supported some alternative management models that have accommodated the issue of information asymmetry because of communication of key data through precise articulation and it also helps in identification of criticalities of communication amongst the hierarchy of an organization.

All along its three generations, BSC has evolved as a strategic management tool, which involves managers working at various management levels in the process of strategic management levels of an
organization. It provides control perimeter, and above all it removes barriers between the formulation of strategy and its implementation.

### 2.9 Implementation of Balanced Score Card

There was a time where the corporate world learnt many things in the management domain from the Defense Forces, however, over the time due fierce competition in the corporate and market area, number of modifications / innovation have been brought about in the management methods at corporate level, which have proven their success in bringing efficiencies and producing right outcomes to meet organizations’ strategic objective. The trend has therefore, now reversed and it’s time for Defense forces to learn from the experiences of corporate world. One such major management innovation by the corporate world is the introduction of BSC, which helps in transposing the organization strategies into some comprehensive indicators, which help in defending the strategic frame work of performance management and assessment. Four major pillars of BSC are the four perspectives. Financial, Customers Internal Business Processes and the Learning and Growth and it moves down to the employees level (Brown, 2007). The whole thrust of BSC concept is to achieve a balanced growth of these four perspectives in respect of an organization as it grows, so that none of these remains neglected i.e. a balanced growth of organization is insured. Implementing BSC in itself is strategy of an organization at the operational level (Kaplan and Norton, 1999).

According to Lawton, BSC also helps in recognizing in the given time and space the challenges and dictates that, which perspective of the organization needs to be focused. This makes it possible for the timely and right intervention by top management to ensure balanced growth of an institution. Thus role of BSC is to provide a comprehensive performance picture of the organization as a whole about all the projects and the activities being pursued (Lawton, 2003). In view of Harsvolgy, BSC helps organizations in focusing on objectives, locating the performance indicators (PIs) and enhancing value, which as a whole describes the practical manifestation of the strategy. BSC therefore, is the means to achieve the overall strategy and has least or no role in strategy formulation (Harsvdgi et al, 2002).

Management accounting processes was used by Kaplan and Atkinson for the measurement of all the four processes. They also concluded that it is important to measure the length, cost and the quality of the process whereas; in respect of HR the key element to measure according to them is the, retention of the employees and the coverage of the strategic posts (Kaplan and Atkinson, 2003). Management science is critical of the accounting based management as it does not account any other assets in its calculation which are not the part of balanced Sheet. Whereas, according to management science, there are three other important capitals which have direct bearing on the financial performance of the company:
customer capital (customers), structural capital (internal processes) Human capital (Learning and the Growth). The BSC tends to transform all these three generally considered intangible capitals into financial capitals (Lengyéd, 2001).

2.9.1 International Experience of Implementing BSC Hungarian Experience

Many Hungarian companies have implemented BSC. They have very positive experience and consider BSC a tool which helps implementing organization’s strategy. Its importance also stands justified and vindicated due the fact that no organization can succeed in development until the organization strategy is not known to its employees. According to a survey by Fortune Magazine, 90% of the world organizations remain fail in realizing their strategy (Szigdi, 2003). The link between the strategy and the daily operation can be well understood by the following figure: 2.12

![Figure 2.12](image)

BSC does not make it implicit to achieve perfection in internal processes rather it’s a tool helping organizations to concentrate on value generation as well as the core processes (Kaplan and Norton, 2002). BSC is an excellent tool to disseminate the organization strategy across all the employees and helps in methodical and judicious allocation of resources where needed (Varkonyi, 2003). In order to maintain transparency, BSC can pursue and maintain up to 25-30 performance Indicators (PIs), which are driven from organization strategy. While defining and deriving the PIs, a balance should be struck between lagging and the leading Indicators.
Following table shows a comparison between, BSC performance indicators and the tradition indicators.

**Table: 2.4**
Comparison of BSC & Traditional Indicators

<table>
<thead>
<tr>
<th>BSC Performance Indicators</th>
<th>Traditional Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. These concentrate only on strategic area.</td>
<td>These encompass the whole scope of operations.</td>
</tr>
<tr>
<td>b. Organized in an ordered sequence</td>
<td>These exist on no cause and effect relationship</td>
</tr>
<tr>
<td>c. Expected results are spread over a longer duration</td>
<td>Targets are spread over a shorter time frame</td>
</tr>
<tr>
<td>d. Strategy is communicated down the line</td>
<td>Strategy remains limited to the top level</td>
</tr>
<tr>
<td>e. Actions to achieve every objective and PI are well deliberated.</td>
<td>No particular actions are laid down for each objective or the indicator.</td>
</tr>
</tbody>
</table>

The Hungarian experience of implementing BSC brings to light that; implementation of BSC is possible only on project basis. In larger organizations like defense services, Information Technology (IT) is considered vital for the meaningful implementation of BSC, and there would remain a continuous need to train all the personnel to keep them informed and elicit their support. The PIs selection and target setting should be managed from the top level through involvement of experts from the relevant field. Core activities should be focused, and PIs should be revised continuously.

Popular acceptance of BSC highlights, that there is an increased interest among both the private and public sector including defense services to measure and improve performance. Lawton has made a pertinent observation in which he warns against using BSC as a dash board i.e. purely concentrating on achieving the target values in numbers instead of securing objectives and implementing strategy. He advises it is important to look ahead on the road to avoid accidents instead of just concentrating on the Dash Board (Lawton, 2003). Lengyed has also highlighted that a change in circumstances (change of top management, poor articulation of score card (too few or too many unbalanced indicators), problems faced during the course of implementation (lack of commitment by the management less number of employees involved in the process and the delays); can collectively fail the efforts and whole essence of BSC (Lengyed, 2001).
2.9.2 Implementation of BSC by UK Ministry of Defense

The British Ministry of Defense (MoD) has implemented the BSC across the ministry. According to the UK MoD experience, BSC helps in ensuring more focused management, rational decision making, and transparency helps in right decision making. However, on the other hand MoD also highlighted the concern that BSC performance depends upon the amount of right information behind it and difficulties faced in operational section and measurement assessment of BSC may be subjective (Performance, 2000).

Prior implementation of BSC, UK MoD brain stormed that how to interpret the BSC perspectives of corporate world for the use of defense services. They concluded that number of perspectives should not be changed, however these should be modified according to the requirements of defense services.

Customers’ perspective was modified to deliverables as the Defense sector does not have the customers in a business sense. “Financial” perspective was changed to “resource management” because instead of making profits, purpose here is the effective use of resources. “Learning and Growth” perspective was named as “Building for the future”. Building here does not imply developing in quantity rather enhancing quality, mostly in term of human resource (HR), IT and research & development (R & D). These four UK MoD specific BSC perspectives are explained further as follows:

a. **Deliverable.** Includes success in operations both in peace and war, raining of a well prepared potent armed forces defense structure; compatible with National Defense policy and the implementation and understanding of grand Defence strategy.

b. **Resource Management.** This perspective includes, preparing and implementing well balanced programmes / projects, controlling wasteful financial expenditures, balanced availability of human resource (HR) i.e. as per the manning requirement of various establishments as well as the war fighting platforms e.g. ships, Aircrafts, tanks and shore missile batteries etc. Ensuring investment in military technologies and building reputation capital at the national and international level.

c. **Enabling Processes.** Making inter service processes shorter, efficient and enhancing and promoting team work, making procurement procedures faster and well thought out for future support ability and above all implementing performance management culture.
d. **Building for Future.** Development of personnel as per future requirement of qualification and knowledge keeping in mind the fast growth of defense technology and tactics, making a well thought out strategic assessment and use of secured means of IT, increased R & D and adapting to new technologies (Halley, 2004).

### 2.10 Leading and Managing a Balanced Scorecard

The BSC is a tool for senior management to focus their organization on laid down strategies for long term success. This aspect until now has been difficult to accomplish. By identifying the most key objectives which should be focused by an organization keeping in view the available resources, BSC provides a framework for a strategic management system (Kaplan and Norton, 1996). In this management system each component can be linked to a specific strategic goal. In case of defense forces objectives; where nation is a stake holder, internal management processes and personnel as well as internal management systems are linked to achieve long term national goals and objectives. Among all the three arms of defense services, departmental, as well as individual goals are aligned to the achievement of *National strategic goals.*

The introduction of a management system centered on balanced scorecard helps to overcome the management inertia that tends to absorb almost any change programme. Any new system for its effective implementation needs two types of change agents. Foremost are the transitional leaders who help in building a Balanced Scorecard and embed it as a new management system. Secondly are those who operate the management system through Balanced Scorecard as an ongoing process. However, responsibilities of both these entities do not fall within the traditional management domains.

### 2.11 Transitional Management Role

There are three critical roles that a management needs to undertake for building and embedding the Balanced Scorecard for a strategic management:

1. As an Architect
2. As a Change Agent
3. As a Communicator
Being an architect a leader is responsible for the process of building the initial BSC and introducing it into the management system. As BSC brings in a radical change in the entire management philosophy, the architect should thoroughly understand and needs to be motivated internally by focusing on long term strategic objectives. Architect should be fully capable of educating the whole executive management team translating the strategy into specific objectives.

The success of a Scorecard programme depends upon the level of commitment and dedication of the executive management team, which means that architect shall not have many chances to take rather he will be playing in narrow window of opportunity to take along the executive team. If the initial efforts of an architect are not successful and convincing, he will find it extremely difficult to muster additional time for executive team meetings. This is especially difficult in defense services where very strong hierarchies exist and plucking time from the top management is much difficult. External consultants and internal knowledge workers may play a critical role to launch a successful BSC programme. The ideal conditions require external and internal consultants working in a close coordination on pilot programmes.

Two Distinct purposes are served by a pilot programme; firstly it highlights the importance of BSC and secondly it builds up the competency rapport of the internal consulting group managing the rollout of the programme to the rest of the organization (Kaplan and Norton, 1996). The internal consultants also have to support the change agent who has to embed the Scorecard into the normal ongoing processes of the organization. Change agent should therefore, have a direct approach to the top leadership as he serves as the chief of staff to guide and develop the new management system spanning over a time period of two to three years during which the new management processes based on the BSC shall unfold. The change agent’s role is also critical in a way that he is to serve as a surrogate on behalf of the top leadership, giving shape to the day to day use of BSC. Change Agent also guides and helps the managers at various tiers to redefine their roles as per the requirements of the new system being implemented through BSC.

The communicator’s role is to muster the understanding, support and buy in by the organization members at all levels; including the top most leadership down to the level of an ordinary corporal. New strategies based on the BSC generally require a paradigm change in new values and ways of performing various works, which brings in enhanced and multifaceted roles for all the members of the organization. The communicator’s role is therefore, more akin to a marketing campaigner. He should also be able to motivate the personnel to give realistic feedback about whether the new strategy being enforced is desirable and feasible. He is to spearhead the communication campaign until the objectives of thorough awareness about the new system and strategies are fully imbibed by all members of the organization and they are appropriately motivated to adopt the new system.
2.12 Mobilizing the Organization

A management system cannot be implemented over night. Looking at its scope, complexity and impact a new management system must be implemented over time. During this grace time the leader who is leading this change should be able to unfreeze the organization from the existing management paradigm and should be able to communicate and send a message about the new management system through necessary education and motivation. If every segment of change is linked to a consistent underpinning/message e.g a new strategy for the organization; every transformation gets reinforced and builds its foundation upon the previous one. When BSC becomes a central framework for the new management system, all the changes to follow can then be coherent and consistent with dramatic results (Kaplan, 1996). In the past most of the organizations used to fail whenever they tried to bring about new change or tried to implement new strategy or processes because their management system and processes were not mutually linked up in a coherent manner through a central or pivotal framework to the strategy desired to be implemented. As the BSC serves as a coherent framework, it can be used by the leaders as tool to mobilize and guide organization as per the requirements of new strategic direction. The most important role of the Balanced Scorecard in defense forces could be to fill the void of non availability of a systematic process to implement the strategy of an organization. The empirical evidence also suggests the same (Greenbank and Tapp, 2007).

2.13 Building an Integrated Management System

Once a Score Card has been finally designed and implemented, concern would soon surface if it has not been integrated with other management programmes as well, such as budget making, alignment of all strategic initiatives and setting of individual targets. Unless such integrations and alignment are ensured, tangible results may not be expected from Balanced Scorecard. Generally the organizations depend upon a management calendar that elaborates the various processes and schedules for the operation of these processes. Such calendars are mostly organized around budgeting and operational reviews without having any linkage with the strategy formulation. The Balanced Scorecard helps to fill this void and provides a vehicle that brings in the strategic thinking processes in ongoing management process. However, such linkage should be made explicit. The above mentioned management system embodies four important aspects of any strategic management system:

1. Making a strategy and issuing updates.
2. Linking Individual objectives and rewards.
3. Link to allocation of resources and annual budget planning.

2.14 Strategy Formulation

The strategy formulation and updating is a way of top down guidance for the various heads of department of defense forces. During this process either the BSC is linked to a new plan having far reaching effects, or strategy is updated manually.

2.15 Linkage to Personal Objectives and Rewards

As the organization attempt implement new strategies, adopting new technologies and evaluating new opportunities and challenges, managers need to take continual calculated risks and undertake new experiments which are extremely important for their personal grooming and learning. This process intern prepares them to take even greater risks as they rise further in the management hierarchy. The senior leadership should encourage and support this risk taking innovative behavior by managing lower cadre integration issue i.e. linkage to personal objectives and rewards (Kaplan and Norton, 1996). If the personal incentive and rewards are limited to short term measures especially in term of finance, leaders and managers remain risk averse, whereas, at the same time senior leadership will find it difficult to keep their focus on building long term capabilities. Unless punishment and rewards are mutually integrated to a certain well balanced set of objectives, measures or targets on a Scorecard, organization may not be able to use BSC as the main central framework for the entire management system.

2.16 Strategic Learning through Feedback

The final component of a management system is the strategic learning through feedback using various review processes. During this process various monthly reviews are analyzed and the management compares the short term performances with the targets set for those time periods. Whereas, the quarterly reviews are used to analyze the long term trends using the scorecard measures to see that whether the strategy is working well towards the achievement of long term strategic goals. The integration of various management processes using BSC helps the management to shift its focus from tactical domain to a strategic domain where they can effectively translate their strategies into actions.

2.17 Inter Departmental Synergies

The conclusive effect of BSC is to create inter departmental cohesiveness in order to achieve synergetic effect of all efforts being made individually by various departments of an organization. For many years,
the researchers in the domain of strategic management have emphasized the importance of realization of synergy (Ângelo Sil et al. 2016, pp. 452-464). Though this is the desired outcome for all the organizations of the world; but perhaps defence forces as organisation need it the most. Even the multi business industries aspiring in the fields of general goods, Telecommunications, finance, chemical and retail do make efforts to achieve synergy among their various businesses units with an utmost priority to enhance their performance. Synergy means ‘Collective Action’ and has its roots in the Greek word ‘synergos’, which means working together (Merriam – Webster Online Dictionary 2006). Ansoff (1965) introduced the concept of synergy in the strategic management. He used the term synergy to describe the effect that combined return of a whole is greater than the sum of the return from the individual parts. The synergy may be defined as, ‘Synergy is the effect that the combined return of the, “whole” is greater than the sum of the returns from the individual parts. Combining the parts into coherent whole is costly. Or we can say synergy creation needs to be managed and commits resources (c.f Porter 1985; Prahalad & Doz 1987, 1998; Sirower 1997). Therefore, the synergetic potential can never be fully translated into actual synergies.

Recent corporate reports suggest about 116 Swiss, German and Austrian multi business organizations are continuously striving to achieve synergies among their various business units (Muller-Stewens & Knoll 2006). While raising their efficiencies and cutting costs, good corporate companies around the globe are also endeavoring to achieve growth through better inter departmental collaboration (Muller-Stewens & Knoll 2006). Many of these organizations strongly believe that in order to achieve growth in the saturated market, cross business collaboration is the main lever to work.

Inspired by this fundamental truth, achievement of inter departmental synergy generally remains neglected by the researchers of strategic management. Most of the cross business or interdepartmental research has been indirect in approach focusing on the implications of diversification and mostly remained abstract in nature. Fact remains that little is known about how to achieve synergies among various departments of an organization especially the organizations of bigger volume as of defense forces. In case of defense forces research particularly lakes in a sense that how to achieve cost effective inter departmental synergies within the force and most importantly amongst the sister services at joint operations level.

For many years, the researchers in the domain of strategic management have emphasized the importance of realization of synergy. Around the globe main purpose of various mergers and acquisitions is to achieve more growth through realization of synergies (e.g., Larson & Finkelstein 1999), and for alliances (e.g., Das & Teng 2000; Harrison et al. 2001), and for multi business firms (e.g., Ansoff 1965; Porter 1985; Martin & Eisenhardt 2001; Martin 2002). Amongst the defense history most important example of achievement synergetic effect among various arms of the defense forces was the Normandy landing by
the allies on the French coast. Inter departmental synergies can be summarized as, “the value that is created and captured, over time, by the some of the departmental efforts relative to what it would be separately by each department” (Martin & Eisenhardt 2001: 3). They have tried to express the value addition by the managerial level of each department. They especially capture two managerial performance effects. The first effect comes into being due to the vertical relationship between the senior leadership levels where as the horizontal effect takes place due to relationship among the middle management level. Researcher doubt whether these relationship really have any role to play in the overall performance of an organization. However, recent studies suggest that in the corporate world inter departmental synergies have an effect of up to 18 % (Roquebert et al. 1996; Bowman & Helfat 2002). Further studies in this field have shown that within the diversified industries 43 % of them have outperformed the traditional focused group type firms (Anand & Byzalov 2007). This suggests that interdepartmental synergies do exist within an organization.

2.17.1 Categories of Interdepartmental Synergies

Although the existence of inter departmental synergies have been well established, a fact which itself lies in the genesis of BSC; and even the managers in the corporate world intend to seek cross business synergies desperately (Goold & Campbell 1998), researchers on the other hand have yet not been able to establish a research perspective for inter departmental synergies. The research in the fields of economics, strategic management and financial management try to explore sources of cross business synergies from different perspectives. Since the initial work of Ansoff (1965) and Porter (1985) about 30 years ago, scholars have not been able to provide typologies of interdepartmental synergies imbedded in the theory. Some of the typologies are quite arbitrary not giving any proper definition or classification criteria (Ansoff 1965; Goold & Campbell 2000).

Despite the importance attributed to inter departmental growth synergies, their continual realization did not get as much attention in the literature. This is little disturbing as the achievement of these synergies is an indefinable goal for the top management of any organization of its salt (cf. Bettis 1981; Amit & Livnat 1988; Ramanujam & Varadarajan 1989; Eisenhardt & Galunic 2000; Palich et al. 2000; Martin 2002).

2.17.2 The Impact of Inter Departmental Synergies on Over All Performance

In the corporate world, cross business synergies exist if the Net Present Value (NPV) of the combined firm is greater than the NPVs of standalone business units of the firm. Therefore, from corporate perspective the measure of synergy is quite easy as it can be translated into NPV. However, where cross
business synergies cause an increase in the firm’s NPV that does not automatically mean that firm will also out perform its competitors as well. This raises the question then; that under what circumstances realization of cross business synergies actually leads to the overall advantageous situation.

This question has not been addressed directly by the empirical research; however, resource based theory as well as transaction cost theory has given certain tools that allow us to answer this question. The cross business or inter departmental synergies contribute to the overall organizational advantage if these are:

- A source of comparative advantage
- If the firm has an agency advantage on the available market to realize them (cf. Markides & Williamson 1994, 1996; Collis & Montgomery 2005; Grant 2005a; Barney 2007). NPV.

On the other hand, not for profit organizations like defense forces have to devise their own methodology to measure inter departmental synergetic effects. BSC at present is therefore, the only tool which claims to measure the synergetic intangibles of performance (Kaplan and Norton 1996).

### 2.17.3 Inter Departmental Synergies as Source of Competitive Advantage

Inter departmental or cross business synergies would contribute to over all organizational advantage if these have competitive advantage ingrained into them. Logically any activity that leads to gain a competitive advantage will also lead to the overall performance advantage of the organization comparative to a single departmental activity. (Farjoun 1994; Markides & Williamson 1994; Robins and Wiersema 1995). Conditions have been elaborated by Resource Based view under the umbrella of which interdepartmental synergies become the source of sustained competitive advantage (Barney 1991; Conner 1991; Peteraf 1993; Wernerfelt 1948):

- Firstly the synergetic source should be *valuable*. This could only be possible if such sources are relevant to the key success factors of the core function of an organization (Grant 2005a). To put it more clearly, source should enable the organization to exploit the available opportunity or should mediate to reduce the challenges and threats (Barney 2007). Ultimately these sources should be able to address the apprehensions of the stake holders and in case of defence services public as whole is the indirect stake holder whereas, the personnel and their families are the direct stake holders (Collis & Montgomery 2005).

- Secondly, the synergetic resources should be *rare*, means these should be short in supply. If these are in abundance then these may be required to compete but may not be necessary for
competitive advantage (Grant 2005a). Resources which are valuable but not rare can also be a source of competitive advantage (Barney 2007).

- Finally the synergetic resources of sustained competitive advantage should be difficult to imitate. Such resource is difficult to imitate only if it has cost and timings disadvantageous for the competitors to achieve it (Grant 2005a; Barney 2007). It may due to some unique and outstanding historical conditions e.g. diseconomies of time compression, Social complexity, causal ambiguity or patents (Barny 2007) be difficult for the competitors to achieve.

### 2.17.4 The Existence of Interdepartmental Synergies

The researchers of Strategic Management since long have been questioning the possibility of existence of interdepartmental synergies of an organization. At the same time they also raised their doubts whether the vertical and horizontal relationship of an organization do have some effect on the overall performance of an organization. Early studies have attributed the performance difference at a small scale performance i.e. in case of corporate firm till business level and for not for profit organization like defense services till departmental level (Werner felt & Montgomery 1988; Rumelt 1991), However recent studies with improved sampling and intricate analytical and statistic methods have suggested broad corporate advantages of up to 18 % (Roqueber et al, 1996). (Bowman and Helfat 2001) have concluded:

“A revisionist view that corporate strategy does not matter has gained considerable influence in recent years. This view largely stems from empirical results of early variance decomposition studies that found negligible corporate effects associated with profitability differences between businesses. Our analysis of the variance decomposition literature shows this view to be incorrect. Studies as group show that factors at the corporate level of organizations contribute to profitability differences. Corporate strategy in fact does matter.”

### 2.17.5 Types of Inter-Departmental Synergies

Various literature streams including financial theories and industrial economies and strategic management mention the existence of interdepartmental synergies. However, theoretically well established typologies of such strategies are found absent from the literature. Most of them are arbitrary. E.g. Ansoff (1965) classifies them as, Investment Synergies, Operating Synergies, Sales Synergies and Managerial Synergies as sum of inter departmental synergies without however, some proper definition, criteria to classify or any theoretical grounds. Recently Goold and Campbell (2000) have classified
synergetic typology without much logic as; Pooled negotiation power, coordinated strategies, shared tangible resources, combined new generation and vertical integration.

Table 2.5 Inter Departmental Synergies

<table>
<thead>
<tr>
<th>Inter Departmental Synergies</th>
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<tr>
<td>The value that is created and captured, over time, by the sum of the departmental activities together relative to what it would be separately</td>
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</table>

- **Operating Synergies**: the performance advantage achieved by an organization by leveraging its operating resources.

- **Public Relations Synergies**: is comprised of public good will capital mustered over longish period of time through better provision of services comparative to other organization.

- **Financial Synergies**: include all means of financing an organization’s operations.

- **Management Resources**: comprise the management and leadership capabilities at the top management level.

Based on these resources four type of inter departmental synergies have been conceptualized: **Operative Synergies**: organizations apply these resources appropriately across all their departments to increase efficiencies and profitability. **Public Relation Synergies**: to exploit already established PR capital among the public most important for defense services in order to muster home support against external threats, as no military of the world can succeed if its public does not stand by it. **Financial Synergies**: leveraging available financial resources to increase efficiencies and to have financial flexibility. **Management Synergies**: it encompasses all those abilities of the management and leadership team that are considered
mandatory for the efficient management of all available resources of an organization and are necessary to create comparative difference.

This typology has been based in the scholarly articles published in the journals of strategic management over the last three decades. A thorough empirical exploratory work was undertaken to complement the theoretical analysis of existing secondary data while laying out the typology of synergies; as sufficient data/information is not available in the existing literature for conceptualization of these synergies.

In the ensuing paragraphs a thorough elaboration of different type of synergies has been given. The analysis of each synergy has been structured in four steps. In the beginning an introduction of interdepartmental synergies has been given. Subsequently different sources of that synergy have been given based on more in depth analysis. Finally the contribution of that synergy to the overall performance of the organization has been discussed. This shortcoming has been addressed by providing a typology based on the latest research. This synergy typology is embedded in the resource based perspective of an organization. Deriving from Barney (1991), a broad based notion of resources can be defined as, “all assets, capabilities, organizational processes, firm attributes, information, knowledge etc, controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness” (Barney, 1991). By positing these leveraging resources across all departments or across all businesses in case of a corporate organization synergy is created and it also helps delineating different types of interdepartmental synergies based on four type of resources: Operating resources, Public relationship resources, Financial resources and Management resources. Operating resources encompass the tangible and intangible resources of an organization necessary for supporting ongoing operations. Public Relation Resources are comprised of public goodwill capital mustered over longish period of time through better provisioning of services comparative to other organizations, e.g. in Pakistan regular defense services are better respected and enjoy better reputation than the paramilitary forces i.e. police, Ranger and Frontier Corps etc. Financial Resources include all means of financing an organization’s operations. The Management Resources comprise the management and leadership capabilities at the top management level.

2.17.5.1 Operating Synergies

Available literature on the multi function organizations argues that such organizations can enhance their output value by leveraging their operating resources judiciously across all the departments (Ansf 1965; Dundas & Richardson 1980; kay 1982, 1984; teece 1980; Porter 1985). Operating resources include
tangible as well as intangible middle management level resources considered necessary to run day to day operations of an organization. The operating synergies can be defined as follows:

**Definition of Operating Synergies:**
Operating synergies of an organization are the performance level advantages of a multi departmental organization like Pakistan Defense Forces derived by intelligent application of its operating resources across all the departments.

### 2.17.5.1.1 Classification of Operating Synergies

A thorough review of the literature suggests two type of operating synergies, which differ in their operating outcomes, named as *Efficiency Synergies* and the *Growth Synergies*, same have been discussed in the following paragraphs at the end their differences shall be highlighted.

1. **Efficiency Synergies**

   The Efficiency Synergy is defined as the efficiency advantage derived by an organization from the application of same operating resources across all the departments of an organization:

   **Definition of Efficiency Synergy**
   Efficiency Synergy is defined as the efficiency advantage derived by an organization from the application of same operating resources across all the departments of an organization.

   In the available literature of Strategic Management the concept of *Efficiency Synergies* is based on *Economies of Scope* (Panzar & 1981; Baily & Friedlander 1982). The existence of Scope Economies is manifested if “it is cost effective to combine two or more functions in an organization than to undertake them independently” (Panzar & Willing 1981). The Scope Economies are materialized by sharing resources in the undertaking of multiple functions across the organization. Which, result in lowering costs of performance of various functions by putting underutilized resources to the productive use. (Panzer & Willing 1981; Baily & Friedlander 1982). Economies of Scope for two functions of an organization exist if the combined cost of performance of two functions ‘Y1’ and ‘Y2’ within one organization (C(Y1,Y2)) is less than combined cost of performing these functions separately in two separate organizations (C(Y1)) + (C(Y2)). The following equation gives the expression of Scope Economies:
Economies of Scope Between Two Functions

\[ C(Y_1,Y_2) < C(Y_1) + (C(Y_2) \]

Where \( C \) = total cost of performance of one function, \( Y_1 \) = output of function 1, whereas, \( Y_2 \) = output of function 2.

Traditionally the focus of Economies of Scope has been limited to the domain of physical output especially in the corporate world (Panzar & Willing 1981). However, further research has highlighted the possibility of existence of Economies of Scope in other functions related to values creation e.g. in the field of research and development (Davis & Tomas, 1993), and it also includes the intangible resources e.g. Best Practices and Reputation of an organization. (Montgomery & Wernerfelt 1982). With advancement of research in the strategic Management, various resources of the Scope Economies have been put forward (Bailey & Friedlander 1982):

- Networking various functions of an organization to perform them together instead of performing them separately.
- Reusing of an input for the performance of more than one function.
- Sharing of intangible assets for the performance of various functions.

The bigger organizations like Pakistan Defense services can apply/transfer numerous tangible and intangible resources across various functions to realize efficiency synergies. Possibilities are so numerous that it is impossible to lay an exhaustive list.

A common example of realizing efficiency synergies could be the application of research as well as IT services across various departments and functions of an organization (Porter, 1985). The other example of a common knowledge could be the transfer of best practices of one department across other departments as well (Collis & Montgomery 2005).

2.17.5.2 Growth Synergies

Growth synergy is defined as, profitable Growth Advantage of an organization by recombining and transferring of various resources complementing each other across multiple functions of an organization.
Definition of Growth Synergies

Growth synergies are profitable Growth Advantage of an organization by recombining and transferring of various resources complementing each other across multiple functions of an organization.

Number of organizations across the world focus on their inter departmental activities for the achievement of Growth Synergies. Especially in the corporate world e.g. the survey of 116 corporate firms across Europe revealed that more than 70% managers did indicate that achievement of Growth Synergies is their desire as well as priority (Muller- Stewens & Knoll 2006). Though achievement of Growth Synergies is an important aspect of managerial practices, however, same remained neglected by the researcher of Management Science. Most of the research has generally focused on the achievement of Efficiency Synergies (Ramanujam & Varadarajan, 1989). Research in the field of strategic management has recently uncovered the possible sources of Growth Synergies but has not much clarified them. However, from the early research it emerges that growth synergies take their shape by recombination of resources dynamically; complementing each other in the performance of various functions across all the departments of an organization rather than their static utilization (Eisenhard & Galunic 2000, Eisenhardt & Martin 2000). The efficiency synergies are achieved by putting same resource to multiple usage e.g. an air sortie of Pakistan Air Force jet fighter on return form mission of providing air cover to Pakistan Army troops also provides air cap to PN ships transiting closed to vulnerable coastal area. Whereas, Growth synergies are materialized by combination of resources i.e. to create a value, which has strategic effects. For example it is a well known fact the submarine force has far reaching strategic effects on the movements of enemy war and merchant ships. Same has been very well proven during Second World War in the shape of tonnage sunk by German submarines and the way maritime liberty of England was curtailed and denied. In the recent history, during Falk Land war of 1982 just the fear of existence of one Argentinean submarine Santa Fee, tied the British resources to an extent that British Navy Ships launched about 200 Mark 45 torpedoes on the wrong assumption of underwater probable submarine contact. Now if during one budget year other two Pakistan sister services i.e. Pak Air Force and Pak Army when contributed their part of budget for purchase of state of the Art Agosta 90-B submarines for Pak Navy helped in achieving the strategic parity over the traditional enemy thereby providing a strategic growth to the synergies of defense services of Pakistan.

Thus the key resources that can be combined across the departments of an organization or within the various arms of Defense Services to create some strategic value are the sources of creating Growth Synergies. And these resources are known as the complementary resources. Two resources are considered complementary when they help to complete the achievement of a whole. In other words these must mutually reinforce (Milgrom & Roberts 1990). Two resources are considered complementary; when
increasing the level of one resource while all ready having a level of other source in place has more incremental effect on the value created in the process. Complementary resources may not be identical, but yet they may simultaneously complement each other (Harrison et al. 2001)

2.17.5.3 Comparing Efficiency Synergies and Growth Synergies

Although Efficiency and Growth synergies are sub classes of Operating Synergies but while in action these appear to be giving birth to a different phenomenon. In the following table, characteristics of both the synergies have been compared.

Table 2.6 Comparison of Efficiency and Growth Synergies

<table>
<thead>
<tr>
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<th>Efficiency Synergy</th>
<th>Growth Synergy</th>
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<tbody>
<tr>
<td><strong>Primary Effect</strong></td>
<td>Efficiency is increased</td>
<td>Value is increased</td>
</tr>
<tr>
<td><strong>Conceptualization</strong></td>
<td>It causes the materialization of Economies of Scope</td>
<td>Causes supper additives to the value and revenues in case of corporate organization</td>
</tr>
<tr>
<td><strong>Basic Driver of Value</strong></td>
<td>The operational efficiency</td>
<td>Gives rise to innovation and causes stakeholders’ satisfaction</td>
</tr>
<tr>
<td><strong>Mechanism for Realization</strong></td>
<td>Concentration of resources</td>
<td>Combination of resources</td>
</tr>
<tr>
<td><strong>Focus</strong></td>
<td>Internal focus on similarities</td>
<td>External focus on public/future</td>
</tr>
<tr>
<td><strong>Dynamic Level</strong></td>
<td>Static i.e. on sharing resources</td>
<td>Dynamic i.e. exploiting opportunities</td>
</tr>
<tr>
<td><strong>Examples</strong></td>
<td>Shared services/values, central production unit</td>
<td>Inter departmental solutions, causing effects by combination of resources</td>
</tr>
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</table>

The primary effect of efficiency synergy is felt in the form of reduced costs of performing functions. While the primary effect of Growth synergies is felt in the form of creation of better strategic value and overall growth of an organization. In case of defense forces the effects of Growth Synergies are felt in the form of improved Teeth to Tail Ratio. The main value driver for Efficiency Synergy is enhanced Operational Efficiency achieved by focusing same type of operational resources across all the departments of an organization. Whereas, primary value driver for Growth Synergies is the enhanced strategic value and improved innovation for an organization achieved through concentration of resources. Further more Efficiency Synergies are static in nature sharing common resources over a longish period of time; on the other hand Growth Synergies are dynamic in nature as these are produced by combining resources to exploit the available opportunities. It may be noted that both the synergies are not mutually exclusive both might occur together as well i.e. a single source causing Efficiency Synergy at the same time might be getting combined with another resources of another department of an organization and producing Growth Synergies.
2.17.5.4 Impact of Operating Synergies on the Over All Performance of Organization

In the following paragraphs, existing research shall to look into the effect of Operating Synergies on the overall performance of an organization:

(1) Roll of Operating Synergies in Gaining Competitive Advantage

Operating Synergies shall lead to overall advantage of an organization if they become the source of Competitive advantage for that organization (Barney 2007). But according to the Resource Based view it is only possible if such resources are rare, valuable and difficult to imitate (Barney 2007). What are such resources in the context of interdepartmental cohesiveness? Such resources might be idiosyncratic to the organization; however, some studies have classified intangible sources as salient resources for achieving overall corporate advantage. Miller (2006) has shown that organization which invests more into intangible resources e.g. Public Relations (PRs) outperform other organizations which have more dependence on tangible resources. Nayyar (1993) also finds that the ability of an organization to share its reputational capital across all the departments has positive influence on it’s over all diversified performance.

Although Growth Synergies are based on rare and valuable resources, but these are likely to be sustainable resources of overall advantage to the organization. As the Growth synergies take effect from combination of resources. This combination of resources creates inter connected stock of assets, which are difficult to imitate for other competitors. (Porter 1996; Rivkin 2000; Harrison et al. 2001).

(2) Transaction advantage in Realizing Operating Synergies

Some studies in the literature have shown that organizations may also achieve overall advantage by leveraging certain resources which may not be rare or difficult to imitate as these have transaction advantage comparing to other organizations. For example in the corporate world in an inefficient market, buyers and sellers both suffer from the lack of information due to an un developed communication infrastructure. It is because of the non availability/non institutionalization of independent consumer information organizations or consumer research bodies as well as premature product liabilities. These inefficiencies of the market make it difficult for the traders and the merchants to obtain required information data on customers and their consumer behavior. On the other hand consumers are also denied information on the quality of goods or services they desire. Operative synergies in such markets
from a strong brand or the market research can be basis of corporate advantage even if these shared resources are not the source of comparative advantage, as these are not rare or limited and are approachable and obtainable by anybody willing to do so. On the other hand in an efficient market it is quite difficult to introduce a new brand due to very loyal customer following. Firms having strength only in a single business cannot afford penetration into such markets and therefore, cannot afford investments in such markets. Whereas, a Multi Business Firm (MBF) applying its Operative Synergies e.g. through a shared brand i.e. employing its Efficiency Synergies can make the investment worthwhile over a single business rival. However, as the efficiency of product markets increases and product information are easily accessible to the customers, the corporate advantage being obtained from a shared product exists no more. Even if the Efficiency Synergies of the shared brand remain the same (Palepu and Khannan 1997).

2.17.5.5 Summary Discussion

We have discussed operative synergies as the first type of synergy of a multi departmental organization. It has been seen through literature review that operating synergies contribute to the overall advantage of the organization through better utilization of those resources which are rare and difficult to imitate by other competitor of the same field. Intangible, coordination and mediation resources are particularly the more salient ones having direct contribution to the overall advantage of a multi departmental organization like Defense Services. Furthermore, operating synergies have been classified further into Efficiency and Growth synergies as two distinct classes or operating synergies along with the evidence of their existence. Efficiency synergies drive strength from sharing of similar resources for multiple utility, whereas, Growth synergies drive strength from sharing of multiple resources across the departments for a single purpose. Efficiency synergies are well imbedded in the literature; however, Growth synergies are emerging concepts requiring further research and clarification.

The concept is extremely useful and beneficial especially for the strategic organization like Pakistan defense services. During the study it also becomes evident that BSC in its methodology embodies the synergetic effects as previously discussed if an intelligent selection of perspectives is made before the designing of Score Card of and organization, as, the basic emphasis of the BSC is also on the better utility of resources along with measurement of each activity being undertaken in an organization.
2.17.6 Public Relations Synergies

The second type of synergy is the Public Relation Synergies which emerged in the wake of our literature review. The literature reveals that multidepartment organization like Pakistan Defense forces working under the direct glare of public domain, can add lot of value to their day to day performance provided they are conscious of the existence of such type of synergies (Porter 1980; Caves 1981). The basic governing argument is that strong public support enhance the public image of the organization and becomes a source of extreme positive motivation for its personnel to do even better in the process both; organization and the public itself benefit from each other. Organization enjoys better reputation and the public avails of improved quality of service. The Public Relation Synergy is defined as follows:

**Public Relations Synergy:** is comprised of public good will capital mustered over long period of time through better provision of services comparative to other organization.

Public Relation Synergies are expected to have following positive outcomes for an organization like Defense Services:

- Enhances the acceptance of an organization among the public.
- Becomes a source of increased self esteem for the personnel.
- This acceptance is especially important for the personnel of defense services as it gives them home support to perform better at the front while confronted with the enemy.
- Personnel perform their jobs with more motivation and willingness, which ultimately increases the quality of service or product fabrication.

2.17.7 Financial Synergies

Third type of inter departmental synergy that came to light during the literature research is the Financial Synergy. Financial as well management literature argues that strategic organization like defense services can create strategic value by leveraging strategic resources across their departments. The financial resources of an organization include its capacity to take financial risks as well as all means of financing its various functions across all the departments. The financial synergy may be defined as follows:

**Definition**
Financial synergies of multi departmental organization are its performance advantages that are achieved
by leveraging its financial resources.

2.17.7.1 Classification of Financial Synergies

The available literature suggests that strategic organizations can gain advantage out of financial synergies in two different ways: (1) Risk Reduction for the Organization, (2) Financial Economies of Scale.

Table 2.7 Financial Synergies

<table>
<thead>
<tr>
<th>Financial Synergies</th>
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<tr>
<td>↓</td>
</tr>
<tr>
<td>Performance Advantages of Multidepartment Organization by Leveraging Financial Resources Across Businesses</td>
</tr>
<tr>
<td>↓</td>
</tr>
<tr>
<td>Risk Reduction: Raising the risk taking capacity of an organization and raising the confidence of its personnel to take more bold decision.</td>
</tr>
<tr>
<td>↓</td>
</tr>
<tr>
<td>Financial Economies of Scale: Helps to reduce transaction and flotation cost.</td>
</tr>
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</table>

Reduction of risk means to increase the overall risk taking capacity of the organization and gaining confidence of the stake holdersso that they have more willingness to invest further into the organization.

Better risk reduction also results in saving of funds, which gives flexibility to the organization to allocate funds for more productive purposes in case of defense services it results in further enhancing the lethality of the organization. As, the decision making at the top level has strategic effect it also has an influence on the financial risk of the organization. This means that financial positive returns are not just linear in nature rather these get influenced by the decision making leadership/managerial body of the organization (Bettis & Hall, 1982; Lubatkin & O’Neill, 1987; Chatterjee & Lubatkin, 1990). In other words it can also be said that leadership and management body can always intervene to control the financial risk of the organization.
2.17.7.2 Competitive Advantage of Financial Synergies

Generally financial synergies are not considered as a source of Competitive advantage. Two arguments are made to support this assertion: firstly it is considered that financial resources are generic in nature which is not rare or difficult to imitate (Collis & Montgomery 2005). Secondly the investors can themselves diversify organization specific risk (Montgomery & Singh 1984). Financial synergies may not directly qualify as a source of competitive advantage; these can be an indirect source of competitive advantage, as the risk reduction allows the willingness of investors to make further investments which can be an indirect source of financial synergy. Better financial flexibility allows the freedom to the organization to ‘Go Big’ and invests further into the Risky/Innovative projects that become a source of competitive advantage later on. Military leadership generally remains oblivious of the indirect contribution of financial synergies towards overall performance of the organization, as generally the effect of these synergies remains opaque. Another argument put forward by the management scholars is that financial synergies or comparative advantage through finances can only be secured if the related diversification is made rather than single function unrelated diversification (Amit & Livant 1988; Hill & Hanson 1991; Palich et al. 2001). Due to this argument, scholars some time infer that financial synergies do not contribute to the overall advantage of the organization. However, while financial synergies may not be one of the dominant factors of overall advantage to the organization’s functioning, this does not mean financial synergies don’t contribute to the overall organization’s benefit at all.

2.17.8 Leadership and Management Synergies

Many researchers of the strategic management think that multi departmental organization do possess management capabilities that help each department within the organization to perform at even higher level if that operates as an independent organization and resultantly generates inter departmental synergies (Ansoff 1965; Bower 1986; Rumelt 19740). Leadership and management synergies can be defined as following:

Definition of Leadership and Management Synergies

Leadership and Management synergies of a strategic organization are the performance advantages accrued by leveraging the strategic and tactical leadership as well as management capabilities of its human capital across all the departments.
2.17.8.1 Existing Research on Leadership and Management Synergies

Leadership and management synergies have not yet been well conceptualized in the management literature. However, some scholars have highlighted the concept by discussing certain organizational activities as well as capabilities that help certain departments within the organization to perform better than the others. In the ensuing paragraphs a brief review of the same is given.

(1) Views of Bowman and Helfat (2001)

Their views have been documented as Variation Decomposition Literature. Bowman and Helfat (2002) have founded evidence suggesting that factors associated with the organizational strategy do contribute to the strategic effects. They have hypothetically suggested that leaders and managers influence the overall performance of the organization by shaping:

- The scope of the organization.
- The goals and objectives of the organization.
- Overall environment of the organization.
- Structure of the organization.
- Strategic planning and control.
- The core competencies of the organization.

(2) Views of Hill and Jones (2007)

Both Hill and Jones (2007) make a reference to general organizational capabilities, which they have named as, “competencies transcending individual departments or units and exist at the strategic level of a multi departmental organization like Defense Forces” (Hill & Jones 2007). These competencies may increase performance of strategic organization and these are mostly the skills of top management of the organization (Hill & Jones 2007).

Hill and Jones classify these organizational capabilities into three types: (1) Risk taking capabilities (2) Capabilities of the general organizational design (3) Comparatively Superior Strategic Capabilities.

- **Risk Taking Capabilities.** These capabilities are the built in character or culture of a strategic organization, which allows its managers to take calculated risks in the best interest of the organization. And such organizations encourage: (1) the risk taking capabilities (2) dedicate resources to pursue the innovative ideas. (3) Allow its
employees to fail while pursuing their innovative ideas. (4) Prevent wastes while allowing taking calculated risks.

- **Abilities of General Organization Design.** Design capabilities of an organization include following: (1) Create a culture and structure of the organization in a style that motivates the employees. (2) Both exploration and exploitation should be balanced. (3) Structure, strategy and environment should be continuously aligned, this is where BSC comes in a big way

- **Strategically Superior Capabilities.** These qualities refer to the effect that, “to manage certain intangible management skill and human capital to operate different departments that enables there departments to deliver better than that if these would have been performing independently” (Hill & Jones 2007). It depends upon two main capabilities of the strategic manager. Firstly to devise a strategy to enhance individual performance of the managers, procedures, a unit or the department (Hill & Jones, 2007). Secondly to recognize underlying reasons becoming a source of low performance and fixing them on priority basis (Hill & Jones, 2007)

(3) Discussion by Grant (2005)

Just on the same lines as that of Hill and Jones (2007), Grant (2005a) has highlighted some of the core capabilities considered important to influence performance of an organization undertaking diversified functions, these are in fact the capabilities located at the strategic level. Grant has not provided much explanation that what those qualities are located at the strategic level. However, he has supported his reasoning in the light of working of General Electric Company (GE) and 3M. According to him the core capabilities of GE lie at the strategic level, which include, “the ability of the company as an organization to motivate as well as develop its managers, its outstanding strategic management team that exercises decentralized decision making with a strong centralized control, and its ability to manage internationally” (Grant, 2005a). On the other hand in case of 3M he observes that, capabilities of technical knowhow, product development even the international marketing is undertaken individually by their business units. However, maintenance and nurturing of these capabilities is insured at the strategic level (Grant 2005a).

(4) Discussion by Alexander, Campbell and Goold (1994)

These three scholars of the management science have also concluded that strategic management resources are the key to success of a multi departmental organization. Multi departmental organizations do have
certain department which can run and exist independent of the strategic management hierarchy. It is this hierarchy which acts as strategic parent that is responsible for making strategic decisions. It is this parent which is to decide what new ventures or risks should be taken in the best interest of the organization. What capabilities should be acquired and what alliances should be made. It also chalks out the structure of the organization, lays out budgets and defines expenditure methodologies and sets the strategic tone, values and attitudes of the organization. It is this strategic parent which comes under strict scrutiny when the organization goes wrong or misses the destination. This parent is therefore, always at the heart of strategic decision making. Therefore, in our reckoning this strategic parent has to take center stage to devise and run the organizational strategy (Goold, Campbell & Alexander 1994). These researchers have delineated value adding strategic parent activities into three classes: (1) Core capabilities or stand alone influences. (2) Relating and linking influences. (3) Strategic development.

- **Stand-alone Influence:** Stand alone influence is the influence of the strategic level as well as the performance of an individual department within a multi departmental organization. The strategic managers exert stand alone influence by (1) appointing unit or department level managers. (2) By controlling budgets. (3) Conducting strategy reviews and functional skills. (4) Making strategic investment decision in the best interest of organization.

- **Relating and linking Influence:** It is the influence of the strategic level on its sub organizations to realize operative synergies. Strategic managers exert this influence by aligning various elements of the organization design which includes the decision making process and organization structure, Policies as well as guide lines.

- **Strategic Development:** Strategic Development means developing an organization proportionately keeping in mind the future challenges, threats as well as the possible opportunities which may materialize in future. Peeping into the future depends upon the foresight of the strategic leaders as well as their ability to analyze the present events for their possible effects on future.

In the light of above discussions about the views of various management scholars it can be concluded that strategic management capabilities are manifested in various functions of a multi departmental organization and has an impact on strategic performance.

**2.17.8.2 Characteristics and Classification of Strategic Management Synergies**
First we shall discuss the characteristics of strategic management synergies and then their underlying sources shall be classified.

(1) Characteristics of Strategic Management Synergies

Strategic management synergies focus on vertical relationship between the strategic center and the organizational functioning and capture the performance enhancement of departments that takes place due to the activities undertaken by the strategic managers. Strategic management synergies stem from the capabilities that shape the strategic context of the organization (Burgelman 1983; Bower 1970; Bowman & Helfat 2001) and that enable strategic managers to provide departments with managerial advice (Goold et al. 1994)

The potential for strategic managerial synergies is likely to increase with the increase of managerial relatedness with the department. Managerial relatedness is strategic in nature rather than being operational commonalities within the departments. (Grant 1988; 2005). Managerial relatedness within departments may increase depending upon the similarity of key success factors as well as strategic assets (Grant 2005). Strategic synergies are different from operative synergies even though both derive value from organization’s combined source base. Strategic synergies mainly have their focus on advantages from vertical relationship between the strategic center and individual department, at the same time, focus of the operative synergies is horizontal in nature between the various departments of the sister organizations. Strategic management synergies focus on the fit between individual department and the skills of the strategic leaders. However, operative synergies focus on similarity of resources along the overall value chain of the organization.

To conclude, strategic management synergies in fact conceptualize strategic level capabilities that directly enhance capabilities and efficiencies of the organization. They contain discrete value adding phenomena of strategic management. Strategic management synergies extend the strategic role in a multifarious way (Williamson, 1975)

(2) Classes of Strategic Management Capabilities

The existing literature classifies Strategic Management Capabilities into three forms: (1) Strategic Function Capabilities (Prahalad & Hamel 1990; Goold et al. 1994) (2) Strategic Abilities of Top Management (Hmbrick & Mason 1984). (3) Strategic Design of Organization (Chandler 1962, 1977; Williamson 1975). These capabilities may be further defined as follows:
• **Strategic Function Capabilities.** These are the functional skills of the top management level that is an underlying source of better comparative performance of an organization. That’s why it is said that an organization’s output at the end of the day speaks volumes about the functional capabilities of its leaders at the strategic level in particular. The Arab Israel war of 1967 is a relevant example in this regard. Israel army being smaller in size and resources; overwhelmed all Arab armies collectively just because of better functional capabilities of its strategic leadership.

• **Strategic Abilities of Top Management.** These are general management capabilities of the top management level providing strategic guidance to the entire organization that conclusively improves the competitiveness of the organization. The superior strategic capabilities of US Naval leadership can be sited as one of the relevant example. Because they took a strategic decision under the strategic advice of Mahan who said, “One who rules the seas shall rule the world” or “the nation which shall control the Indian Ocean shall control the world”. Presently US navy rules the sea without any viable challenge and there is no choke point of the world which is not under the direct or discrete supervision of US navy. This capability gives a strategic leverage to US as nation as, their sea lanes of communication are unchallenged and the resources of the entire world are within their approach. On the other hand they have the capability to deny same liberty and leverage to other nations to whom they wish to, at their wish and will; at any time of their choosing and anywhere in the world.

• **Strategic Design of Organization.** These are the general management capabilities of the top leadership which supports all the departments of an organization in formulation and execution of their respective strategies. In case of defense services such role is undertaken by the respective Headquarters, which oversees the working of all the departments and intervenes when ever so required following the proper channel or design of the organization. At the same time this design is kept flexible, only the strategic guidance and requirements desired by the Headquarters are communicated to the respective arms or formations and in order to achieve those strategic effects organizations are free to devise their own strategies in the face of changing tactical situations.
Chapter 3

Theoretical Frame Work

3. Overview

In light of preceding literature review it evolves that BSC is mainly a management tool that works on the principal of performance and activities measurement having direct bearing on the achievement of organizational strategy as well as the strategic aims and objectives of the organization. The four main corner stones that play a pivotal role in the achievement of organizational strategy and are generally agreed upon by the corporate community are:

- The Financial.
- Customer.
- Internal Processes.
- Learning and Growth.

However, as defence forces are not a profit making organizations per say and neither have a concept of classical customer relationship imbedded in their operational philosophy the corporate centered BSC perspectives, therefore, need to be modified to make these compatible to the National Defense Strategy as well as the requirement of Pakistan Defence Forces in the light of preceding literature review. Under the detailed discussion of,” Understanding operational paradigm of Pakistan Defence forces” in the preceding chapter, following have emerged as key management perspectives for Pakistan Defence Forces; all the four have been discussed in chapter 2 at length:

- Purpose
- Resources
- Enabling process
- Building for future

3.1 Explanation of Relationship of Variables

Following is the summary of relationship among independent and the dependent variables their elaborated discussion is appended in the literature review section:
### Table 3.1 Relationship with Dependent Variable

<table>
<thead>
<tr>
<th>Variables</th>
<th>Relationship with Dependent variable</th>
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<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>The National Defense Strategy is always pursued in the light of National purpose. Same was highlighted 2000 years BC by Sun Tzu in following words, “war is one of the most important affairs to the state” (LUO, 1994). An elaborated discussion on the same has been included in the Literature Review section. The leadership and management role of the superior command helps in giving right direction and impetus to this effort of pursuing the aim as a contingent effect. As function of the pursuit of National purpose, a positive synergetic force is created; which helps in materializing the achievement of National Aims and objectives.</td>
</tr>
<tr>
<td><strong>Resource Management</strong></td>
<td>Right maintenance and right application of Human and Material resources is an important aspect of strategic management and has a relationship with the achievement of National defense aims and objectives. It also has an important economical bearing as the defense services are the biggest national departments which absorb more than 40% of the National budget. Any mismanagement of defense resources during peace or war has direct bearing on the national exchequer and the national economy and ultimately on the achievement of Grand National Strategy of which achievement of National Defense Aims and Objectives is a sub part.</td>
</tr>
<tr>
<td><strong>Enabling Processes</strong></td>
<td>Enabling Processes means the internal management processes of defense forces adopted to conduct the businesses or working of the defense forces during both peace and war. As strong hierarchies exist in the defense services world over, even then they differ in the performance of their functions. The only dividing line is that If processes or proficient, hassle free, short and simple as well as less time consuming these will have a positive effect on the working of the defense services. As the time involved in carrying out any process is the major essence of military working, therefore, these should be as unambiguous as possible. To bring in this desired proficiency into the day to day working of Defense Services entirely depends upon the efficiency of the enabling processes.</td>
</tr>
</tbody>
</table>
**Building for Future**

The right perception and right interpretation of changes taking place at national, regional and international level lead to correct evaluation about the future national threat perception, which resultantly helps in peeping into the future defense needs of the country. Rapidly changing technology brings every day new changes in the military weaponry and is so dynamic in nature that no army of its salt can stay aloof, as doing so would amount to acceding tactical, strategic and economical grounds to the enemy. At the same time it will severely affect the future viability of defense services and any such force will fail to build for the future. Perhaps that’s why it is said, ‘more you sweat in peace less you bleed in war’. So building for future has a direct relationship with the Achievement of National Aims and Objectives.

**Leadership/Management**

Irrespective of the fact that how well thought out a Balanced Scorecard is, after all it has to be implemented through human beings exercising the role of leaders as well as managers, it is therefore, but natural that their respective leadership and management qualities shall have a direct effect on the output of the activities being undertaken under the umbrella of their leadership and management. These qualities therefore, have a contingent effect on the actions of independent variables, and from thereon on the Achievement of National Aims and Objectives.

**Creation of Positive Synergy**

The conclusive effect of BSC is to create inter departmental cohesiveness in order to achieve synergetic effect of all efforts being made individually by various departments of an organization. Though this is the desired outcome for all the organizations of the world; but perhaps defense forces as a strategic organization need it the most. Even the multi business industries aspiring in the fields of general goods, Telecommunications, finance, chemical and retail do make efforts to achieve synergy among their various business units with an utmost priority in order to enhance their performance. This synergetic effect however, is temporal in nature i.e. is manifested as function of time the time during which independent variables are in action. This synergetic effect however, culminates in the form of achievement of National Strategic Aims and Objectives.

The balanced growth of above perspectives as professed by the supporters of BSC (Kaplan and Norton, 1996) should help in achieving the National Defence Strategic Aims, which is the ultimate objective of
raising and cultivating the defiance forces of Pakistan. All the four perspectives are therefore, taken as independent variable, whereas, the achievement of National Defence Strategic Aim is taken as dependent variable, which have been discussed at length in the chapter on literature review. All the independent variables explain variance in the dependent variable. Whereas, leadership and managerial skills; have a moderating/contingent effect across the spectrum of all independent variables. Persuasion of grand strategy and sister services strategy may affect the pursuit of collective Purpose of National Defence Strategic Aim. The perspective of Resources while in action may be affected by the quality/quantity of human/ material resources respectively. In the same way, timeliness of procurements, effectiveness of training/ recruitment may affect the outcome of Enabling Processes perspective. Similarly, the quality of appreciation of threat perception, the quality of national industrial infrastructure and selection/comprehension of National aims and objectives; may have a contingent effect on the perspective of, ‘Building for Future’. The only mediating factor, “Creation of Positive Synergy” is produced as function of individual or collective operation of all the four independent variables. Finally the creation of positive synergy helps achieving the dependent variable i.e. the achievement of National Defense Strategic Aims”. It also helps to conceptualize the relationship among independent and dependent variables, as to how the independent variable affects the dependent variable. Mutual relationships also exist among all the four independent variables. Resource perspective has its bearing and influence on Purpose, Enabling Process and Building for Futures whereas, Enabling Processes influences Building for Future, Resources and the perspective of Purpose. The Conceptual Framework has three temporal divisions as depicted in the Fig-3.1 and elaborated as under:

- **t1.** Shows the time domain when the independent variables come into action.
- **t2.** Shows the time when creation of Positive Synergy takes place as a function of operation of independent variables.
- **t3.** Represents the time domain of achievement of dependent variable as a result of creation of Positive Synergy.

The whole Conceptual Model operates under an overall International/geopolitical situation i.e. the Environment. The environment within itself embodies National, Regional and International environment. Conceptual model of this relationship is shown in Fig-3.1
Figure 3.1  Conceptual Model

CONCEPTUAL MODEL

ENVIRONMENT
National/Regional/International

Purpose

Leadership Managerial Skills

Resources

Enabling Process

Building for future

H1

H2

H3

H4

H5

H6

H7

POSITIVE
CREATION
ENERGY

Pursuit of Grand National Defense Strategy

Pursuit of Sister Services Defense Strategy

Marshalling Human Resources

Marshalling Material Resources

Timely Procurement

Effective Training

Effective Recruitment

Analyzing Threat Perception

Comprehending National Aims/Objectives

Achievement of National Defense Strategic Aims
3.1 Hypothesis Formulation

The above research and conceptualization of the subject led the researcher to formulate following hypothesis:

3.1.1 Pursuit of National Purpose and Achievement of National Defense Strategic Aims

The National Defense Strategy is always pursued in the light of National purpose. Same was highlighted 2000 years BC by Sun Tzu in following words, “war is one of the most important affairs to the state” (LUO, 1994). An elaborated discussion on the same has been included in the Literature Review section. The leadership and management role of the superior command helps in giving right direction and impetus to this effort of pursuing the aim as a contingent effect. As function of the pursuit of National purpose, a positive synergetic force is created; which helps in materializing the achievement of National Aims and objectives. Therefore, it can be hypothesized that higher is the understanding and persuasion of Purpose, higher is the positive synergy and resultantly higher are the prospects of achieving. National Aims and objectives:

**Hypothesis-1:** Greater is the pursuit of National purpose, greater is the achievement of strategic Aims and Objective.

3.1.2 Availability/Application of Resources and Achievement of National Defense Strategic Aims

Availability of resources, human as well as material and their right and judicious application is of fundamental importance. The importance of resources for winning a war was highlighted by Sun Tzu in his art of war as follows, “A wise commander should strive to get provisions in the enemy state” (Luo, 1994). Historically militaries having more resources on their Disposal have been more successful and the same is true even today. It is therefore, hypothesized that availability of resources both human and material would help in securing the National Defiance Strategic objectives.

**Hypothesis-2:** Higher is the availability of resources; greater is the achievement of strategic defence aims and objectives.
3.1.3 Enabling Processes and Achievement of National Defense Strategic Aims

The enabling processes are akin to internal processes of an organization e.g. training, procurement and research or development etc. however, these are not exhaustive, because with changing environment and changing enemy capabilities, a review of the existing and recognition of new enabling processes would be needed (Kaplan and Norton, 1996). Achieving excellence in enabling processes helps organization to excel and achieve ultimate strategic goals of an organization (Kaplan and Norton, 1996). Some of the important outcomes of Internal Processes are as follows:

- Deliver valuable output in the shape of enhanced competence both in terms of human and material. And play a contributory role in creation of positive synergy.
- These processes help in earning the confidence of stakeholders. For a national military those are the citizen of the state. This national support enhances synergetic effect.

In the light of above discussion it can be hypothesized:

**Hypothesis-3:** Enabling processes help in achieving defence strategic aims and objectives.

3.1.4 Building for Future and Achievement of National Defense Strategic Aims

We are living in an ever changing world, and it is generally said that, “only constant in the world is change”. This phenomenon is even more relevant to the defence organizations, as most of the changes in defence capabilities both in terms of technology and tactics take place more frequently.

Any military or defence organization will remain aloof of this reality at the cost of its own existence. It is therefore but natural that an observant and alive military organization should enhance its capability in synch with the changing capabilities of expected enemy / enemies. The famous saying of centuries old strategist Sun Tzu is highly relevant over here, “know your enemy and know yourself you will not lose in hundred battles” (Luo, 1994). The right appreciation and correct judgment of future threat perception as well as the quality of research/development including National industrial base; has contingent effect on the efforts to build for future. It can therefore, be concluded that sound Building for Future has positive effect on the achievement of defense strategic aims. Resultantly it is hypothesized:

**Hypothesis-4:** Building for future helps the achievement of Defense Strategic Aims and objectives.
3.1.5 Leadership/Management Skills and Achievement of Defense Strategic Aims

The BSC is a tool for senior management to focus their organization on laid down strategies for long term success. This aspect until now has been difficult to accomplish. By identifying the most key objectives which should be focused by an organization keeping in view the available resources, BSC provides a framework for a strategic management system (Kaplan and Norton, 1996). In this management system each component can be linked to a specific strategic goal. In case of defense forces objectives for nation as a stake holder, internal management processes and personnel as well as internal management systems are linked to achieve long term national goals and objectives. Among all the three arms of defense services, departmental teams as well as individual goals are aligned to the achievement of National strategic goals.

In the light of preceding literature review it may be deduced that leadership and management skills though have not been treated as one of the Aspect of BSC rather these have a moderating and contingent effect on the overall Achievement of National Aims and Objectives. No matter how well planned a Score Card may be, but its output shall depend upon the fact that how well it is being implemented. As BSC brings in a paradigm change in the overall management style of an organization, it demands a well planned execution of this change management. Those who have to play the role of change agent shall be required to put in their best leadership as well as management skills to motivate the personnel to accept new change willingly, because if the personnel are not fully ready to accept BSC it can never be implemented smoothly and its results can never be as per expectations. As every individual has his/her peculiar style of leadership as well as management, therefore, with the changed individuals in the leading role, performance of BSC shall be affected proportionally as per the qualities of leadership and management of the individual exercising lead role. It is, therefore hypothesized:

Hypothesis-5 Leadership and management qualities are the predictors of achievement of National Defense Objectives.

3.1.6 Creation of Positive Synergies and Achievement of Defense Strategic Aims

The conclusive effect of BSC is to create inter departmental cohesiveness in order to achieve synergetic effect of all efforts being made individually by various departments of an organization. Though this is the desired outcome for all the organizations of the world; but perhaps defense forces as a strategic organization need it the most. Even the multi business industries aspiring in the fields of general goods, Telecommunications, finance, chemical and retail do make efforts to achieve synergy among their
various business units with an utmost priority in order to enhance their performance. Synergy means ‘Collective effect’ and has its roots in the Greek word ‘synergos’, which means working together (Merriam – Webster Online Dictionary 2006). Ansoff (1965) introduced the concept of synergy in the strategic management. He used the term synergy to describe the effect that the combined return of a whole is greater than the sum of the return from the individual parts, “Synergy is the effect that the combined return of the, “whole” is greater than the sum of the returns from the individual parts”. Combining the parts into coherent whole is costly. Or we can say synergy creation needs to be managed and commits resources.

The main aim of BSC is to align all actions of an organization towards the achievement of mission. The climax of such alignment results in the creation of motivational force for personnel. Whereas, combined effect of physical actions; results in the creation of a positive synergetic force, which helps in the achievement of National Aims and Objectives. In the light of this discussion it may be hypothesized:

**Hypothesis- 6** creation of management synergy while implementing BSC helps in achieving National Aims and Objectives

### 3.1.7 Purpose, Resources, Enabling Processes, Building for Future, Leadership/Management, Creation of Positive Synergies and Achievement of Defense Strategic Aims

The positive synergy shown in the model comes into being as a collective function of all the four independent variables; Purpose, Resources, Enabling Processes and Building for Future under the contingent effect of leadership/Management. The creation of this positive synergy acts as prime mover for the achievement of national defense strategic aims being mediating or intervening variable, which is temporal in nature. All the four independent variables therefore, have a positive correlation with achievement of defense strategic aims.

**Hypothesis-7:** The purpose, resources, enabling processes, building for future, Leadership/Management skills and creation of Positive Synergy have positive correlation with achievement of defense strategic aims.
Chapter 4

Research Methodology

4. Introduction

The purpose of this research is to explore the relevant key management perspectives for BSC of Pakistan Defence Forces to be used as strategic management tool for Pakistan armed forces to achieve desired strategic objectives. As no previous research within Pakistan exists on the topic, therefore, first through exploratory research Zikmund (2003) Key perspectives were delineated but their formal acceptance to serve as basis for BSC implementation was decided through descriptive research (Uma Sekaran & Roger Bougie, 2010) where the relevance of each perspective was studied with the overall strategic vision of the defense services. All those perspectives which passed the test of relevance as independent or depended factors were accepted as perspectives for further testing. Finally perspectives were prioritized keeping in view their $R^2$ values in order to reduce their number so that concurrently relevant Key Performance Indicators (KPIs) and Key Success Factors (KSFs) are also reduced to facilitate smooth measurement of objectives.

The study has provided necessary insight about the following important aspects:

- Relevance of Core BSC perspectives for the BSC of Pakistan Defense Services
- Compatibility of BSC model to the Pakistan Defense Services’ strategic vision/mission
- Challenges in adopting BSC model by the defense services

The use of both primary and secondary sources has been made to find answers to the above questions. For the purposes of secondary data a thorough literature review (chapter 2) was undertaken. Only few books exist on the subject most prominently, ‘Translating Strategy into Action: the Balanced Scorecard’ written by (Kaplan and Norton, 1996) however, being a relatively new subject it has invited lot of interest from academicians and practitioners from all over the world, therefore, a number of research papers exist on the topic. More than 350 research papers were studied on the topic, whereas, a number of journal articles and blogs having views both for and against the application of BSC as management tool were also studied to have an overall insight about the utility and usefulness of BSC world over. While going through the literature research, attention was mostly focused on the following areas:
Collecting evidence of use of BSC in public sector/Government organizations and its outcomes.

• Especial efforts were made to study the BSC application in defence forces around the globe.

• The available literature on doctrines and the management methodologies on Pakistan defence forces were studied in depth to locate their key management areas to use the same as key perspectives for the development of BSC.

The primary data on the other hand both quantitative and qualitative was collected through survey and in-depth interviews respectively same has been further explained under the heading of “Survey Design” and Chapter 6 explains the collection of qualitative data and cross case analysis. The collection of Primary/Secondary data has been used to understand the broader perspective of the research problem and to develop the bigger picture of theoretical perspective. The data was collected and analyzed to identify the relevant key Management Perspectives of Pakistan Defense Services that could be adopted as BSC Key Perspectives.

4.1 Population and Sampling

Both officers and men of all three services form the research population for this study which is approximately 617,000 and is listed. However, for this research our target population has been based on the personnel who have exposure of strategies at the management level in the three Armed Forces. Officers and men are the individual respondents who form the elements of survey sample drawn for the study purposes. However, this study required an input from personnel having at least graduate or Masters level of education, which was deemed necessary to develop an understanding of the strategic management, therefore, officers having a thorough understanding of strategy development and implementation were considered as respondents for this research. These are the officers who have undergone respective staff courses, Armed Forces War Course (AFWC) and the National Defense Course (NDC) form the elements of survey sample conducted for the primary data collection.

Such officers fall in the rank of Brigadiers, Captains, and Wing Commanders and above in Army, Navy and Air Force respectively. They form the targeted strata of survey population. The total strength of this targeted population is 1450 from where the sample is drawn. This sampling technique therefore, falls in the category of stratified sampling Zikmund (2003).

Two stage sampling was conducted in order to collect primary data as well as qualitative data. In the first stage, quantitative data to address the technical aspects of the study was collected from the rank wise strata of officers cadre as mentioned above, however, in order to get an insight about the intangibles;
mostly the expected challenges involved in the implementation of BSC, second stage convenient sampling across all the strata including lower ranks was conducted for in-depth interview purposes.

In the present study population clusters were stratified rank wise. The rank was taken as the basic character of each stratum. The reason for using the stratified sampling during this study is because of the large population but dispersed only Force and rank wise. Stratified sampling also necessitated ordering the sample rank wise and then selecting the same percentage of sample elements using simple random order. This was made easy during this study as the clusters of whole population are exactly listed, which is a rare case for large populations as may be the case for any social study.

As the purpose of this research is to decide/locate the key management perspectives of Pakistan Defence Services to serve as the building blocks for BSC to be adopted by Pakistan Defence Forces, which is expected to bring a paradigm change in the basic strategic management philosophy of Pakistani Defence Services, precision in drawing the sample for this study was therefore, of paramount importance. A due regard has therefore, been given to this overwhelming concern while drawing the sample.

4.1.1 Sampling Technique

For this study Probability sampling has been used. It is based on random order, stratified sampling as well as systematic sampling. A sample may become biased if it misses certain type of elements, whereas, some of the elements comparatively have more representation. This problem can be overcome only if every element of the sample has equal probability of representation. As in this study the population is properly listed as Army List, Navy List and Pakistan Air Force List, therefore, random sampling techniques to draw sample can be applied with good degree of confidence and accuracy, which allows the results to be generalized for all the three services of Pakistan.

4.1.2 Sample Size

The sample variability is determined by the size of a sample. Larger is the sample size; more precise is the estimation of the population. Elements having lower as well as higher representation may have more chances of being selected. As the sample size has an effect on the confidence interval, therefore, a certain sample size can be selected which will ultimately affect the degree of confidence.

As in this study the research population is well listed, the random order sample selection technique has been used to draw sample from the target strata for quantitative primary data collection, however, as a rule of thumb the minimum size of any such sample depends upon the number of independent and dependent variables and the formula for the same is \((\text{Number of Variable} \times 30 = \text{Sample Size})\), which is
the minimum sample size requirement for analysis on SPSS (Uma Sekaran and Roger Bougie, 2009) and Roscoe (1975). The sample size for data to be analyzed using SPSS was drawn keeping in mind the 95% of accuracy level Ranjit Singh (unknown, p. 182). Using online computer based sample calculator by Raosoft Inc, with confidence interval of 5 i.e confidence level of 95%; comes out to be 304 and for confidence level 99% it comes out to be 456. For the research survey the selected sample size is 304 keeping in mind 95% of confidence level. However, the sample sizes for respective force on prorate basis\textsuperscript{32} is as follows:

\begin{itemize}
  \item[a.] Army 62\% X 304 = 189
  \item[b.] Navy 20.7\% X 304 = 63
  \item[c.] Air Force 17.2\% X 304 = 52
\end{itemize}

Total = 304

The exigency of such a study is to balance accuracy and cost both in terms of money and time involved. The absolute sample size is therefore, of crucial importance instead of a relative size. Though a larger sample size reduces the error but it may not be cost effective as far as administering a questionnaire or analysis of the data is concerned. Therefore, for the sake of administering questionnaire the final selected sample size for this study is 300 i.e. n=300.

In this study both qualitative and quantitative techniques are being employed for the collection of primary data, as both the techniques if applied stand alone can have their negative outcomes; if it is purely quantitative it may not reflect the complete essence of the problem. At the same time if it is only qualitative in nature it may fail to capture data that can be used for statistical analysis, and true quantum of problem under study may not be encompassed. The data collection methodology for this research is being explained under survey design.

### 4.1.3 Survey Design

Though lot of literature and secondary data is available on the subject, however, there are only few organizations within Pakistan using BSC as management tool. Resultantly an independent survey has to be conducted by the researcher. This was bit challenging as the survey elements were generally committed officers of the armed forces; data collection and conducting interviews was therefore, a Demanding activity. The nature of this survey is Cross Sectional\textsuperscript{33}; consequently findings of this study can only be generalized for Pakistan Defense Services. The questionnaire was designed on Likert Scale\textsuperscript{34} in a manner that allowed clear understanding by the survey elements so that their responses are measured in the best possible way. To assure confidentiality of the respondents there personnel data including names were not made part of the questionnaire.
The medium for collecting qualitative data was the face to face interviews conducted in the most congenial manner again soliciting time from the senior military officers given their high level of commitment was the challenging part of qualitative data collection. In certain cases interviews could not be completed due to immediate exigencies of the officers arising in the course of performance of their routine duties and repeated visits had to be conducted. Data collection therefore, turned out to be time consuming and costly activity. Administering questionnaire are conducting interviews of the officers or personnel engaged at the operational level of military command was the most challenging part of the study. Difficulty in conducting survey was also faced due to the fact that BSC is a relatively new subject even for well qualified officers. The natural affinity of the senior officers with existing traditional military management system was also a major barrier in soliciting their unbiased response.

Data collection errors may exceed the sampling error, both of them were therefore, handled carefully.

Chapter 5

Findings and Discussion of Qualitative Data

5. Introduction

In this chapter perceptive data gathered from various ranks to capture an insight about BSC has been analyzed. Different schools of thoughts exist on the process of analyzing qualitative data. Therefore, questions in the mind of researcher to gather and process qualitative data were as follows:

- How the culture of Pakistan Defense Services, Way of communication, Learning and growth, background Knowledge would affect implementation of BSC.

- As the conceptual framework validated through quantitative data confirms the explanation of variance of dependent variable i.e. Achievement of National Objectives and was not aimed at capturing perceptions of the target population.

To achieve above objectives this chapter attempts to provide an in depth understanding of senior officers and their perception as well as fears about the implementation of BSC. Twenty interviews of senior Army, Navy and Air Force officers were conducted having qualifications of Staff College, Armed Forces war
College (AFWC), National Defense College (NDC) and courses abroad as well. All of them are of the rank of Colonel and above having rich service experience on their disposal. An elaboration about their experience and qualification is given in the table 5.1; however, their names have not been shown for the purposes of confidentiality. This chapter contains an in-depth discussion and interpretation of these interviews. Accordingly the objectives of this chapter are:

- Discussing the method of collecting qualitative data.
- Provide an in-depth interview profile.
- Briefly focusing on each interview individually to find what lies beyond the perception of individuals about BSC.
- Exploring the finding of the qualitative data through cross case analysis trying to focus on the common evidence.

- Summarizing the findings of qualitative information and to verify whether the underlying argument about the utility of BSC as management tool for defense services holds good or not.

5.1 Qualitative Data Collection and Sampling

For qualitative data a technique which is less *structured but more intrusive* in nature allows the interviewer to gain an insight (Jarrat, 1996). A non directive and congenial environment helps in reducing biases and collecting realistic data. And a non structured interview allows the researcher to extract some hidden facts related to the study which may surface if the environment is not very formal rather is informal and relaxed (Malhotra, 1993). This allows in fact extracting additional and voluntary information of interest which might have not been even planned or thought out by the researcher prior the conduct of such interview (Mathews, 2002). Therefore, for this study a smaller sample of participants was drawn, however, the fact remains that meeting with senior military officers remains a difficult preposition, because being junior researcher lightening the environment mostly rested with the interviewee. But the good aspect was that after breaking the ice successfully most of the senior officers kept the environment very congenial and light which facilitated the researcher in a big way.

For the purpose of qualitative interviews, purposive sampling was used, which is a non probability sampling technique and allows the selection of cases or elements according to the judgment of the researcher but should conform to a certain criteria of respondents (Cooper and Schindler, 2001). Strength of the purposive sampling lies in the fact that information rich cases should be selected which may
enhance the interest intensity and would also facilitate to get more insight about the subject under study (Patton, 1990). Therefore, care has been taken while selecting cases for interview that such officer should have vast service experience, especially the experience of staff duties, good qualification preferably those officers who have done foreign courses and foreign assignment as Naval Attaches. Because officers having foreign exposure during deputations abroad are having lot of knowledge of other cultures and working of their defense forces on their disposal. Especially those officers who have performed duties as naval attaches in USA and Europe were of particular interest as number of these countries is using BSC as management tool even in their defense services. Especially USA defense forces take pride in having earned the Hall of Pride Award for successfully implementing BSC. Table- 6.1 below gives brief details of each respondent selected for qualitative study:

Table 5.1  Respondents their Qualification and Other Characteristics

<table>
<thead>
<tr>
<th>S.No</th>
<th>Code</th>
<th>Rank</th>
<th>Length of Service</th>
<th>Qualification</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A1</td>
<td>Lt Gen</td>
<td>36</td>
<td>C &amp;S , NDC, C &amp; C USA</td>
<td>Held various Command and Staff appointments at, Military Attaché to USA</td>
</tr>
<tr>
<td>2</td>
<td>A2</td>
<td>MaJ Gen</td>
<td>32</td>
<td>C &amp;S , AFWC, C &amp; C UK</td>
<td>Held various command and staff appointment. Worked with UN mission in Somalia</td>
</tr>
<tr>
<td>3</td>
<td>A3</td>
<td>Maj Gen</td>
<td>33</td>
<td>C &amp;S , AFWC, C &amp; C UK</td>
<td>Held various command and staff appointments, Military attaché to Turkey, duties with UN mission in Bosnia</td>
</tr>
<tr>
<td>4</td>
<td>A4</td>
<td>Brig</td>
<td>30</td>
<td>C &amp;S , AFWC,</td>
<td>Commanded a Brigade, Operational Staff duties at GHQ. Duties with UN mission in Ghana</td>
</tr>
<tr>
<td>5</td>
<td>A5</td>
<td>Brig</td>
<td>30</td>
<td>C &amp;S , AFWC, IWC Turkey</td>
<td>Commanded a Brigade, Chief Staff Officer to Corps Cdr, Military Attache at Sri lanka</td>
</tr>
<tr>
<td>6</td>
<td>A6</td>
<td>Brig</td>
<td>29</td>
<td>C &amp;S , AFWC, IWC China</td>
<td>Brigade Cdr, Chief Inst at C&amp;SC Quetta. Duties with UN mission East Timor</td>
</tr>
<tr>
<td>7</td>
<td>A7</td>
<td>Lt Col</td>
<td>25</td>
<td>C &amp;S</td>
<td>Commanded a Unit, performed staff duties at GHQ, Duties with UN Mission in Ghana From the Engineers Corp, Duties with MES at GHQ</td>
</tr>
<tr>
<td>8</td>
<td>A8</td>
<td>Lt Col</td>
<td>25</td>
<td>C &amp;S</td>
<td>Commanded a Unit, Staff officer at GHQ</td>
</tr>
<tr>
<td>9</td>
<td>A9</td>
<td>Lt Col</td>
<td>25</td>
<td>C&amp;S</td>
<td>Commanded a Unit, Staff Officer at GHQ</td>
</tr>
<tr>
<td>10</td>
<td>A10</td>
<td>Col</td>
<td>27</td>
<td>C&amp;S</td>
<td>Commanded PN Fleet, Various lower Commands, Commanded S/M</td>
</tr>
<tr>
<td>11</td>
<td>B1</td>
<td>Vice Admiral</td>
<td>35</td>
<td>PNSC, AFWC, IWC China,</td>
<td></td>
</tr>
</tbody>
</table>
5.2 Qualitative Interview Protocol

There are various data collection techniques e.g. interviews, focus groups, oral history, observation approaches and Delphi Group (Luna Reyes and Anderson, 2003). This study used in-depth interviews and a set research protocol was followed. (Appendix - II). This protocol was established with the help of a group of Pakistan Navy Officers having PhD in management science and having experience of staff duties at Naval Headquarters. This protocol was used as guide line to obtain rich information from the target sub group for interview. The protocol was pretested before formal application by conducting two interviews of the officers of commander rank from Pakistan Navy. The feedback gained through the pilot interview was reviewed and the protocol was revised for better flow of information. A semi structured questionnaire as well as a tape recorder was used as an instrument for data collection, however, with a commitment to the interviewee that his sonic interview shall strictly remain confidential. The questionnaire was tailored in a way to motivate respondents to speak out of their experiences and narrate practical incidents related to the research problem that they might have come across practically in the course of their service.

5.3 Data Analysis

Grounding of theory in a data is a significant factor to secure the basic aim of supporting the claims with good degree of evidence. This also helps understand the link between the theory and data. As such this study has used the paradigm where qualitative data has been collected to test theoretical arguments and this analysis follows the constant comparative method (Glaser and Strauss, 1967). Though each
individual who was interviewed was termed as a unit or single case, however, cross case analysis was conducted for the purposes of comparison between cases (Patton, 1990).

For case analysis, Perry (1998) has suggested to report only descriptive evaluation of individual source of information, it therefore, shall be considered as descriptive analysis. The analysis of this study however, is focused on exploring the level of acceptance and agreement of the interviewees with the proposed perspectives of Balanced Scorecard for Pakistan Defense Services, as these four perspectives have to serve as the foundation stones for the latter on development of Scorecards. The knowledge so acquired also helped in formulation of Hypotheses analyzed quantitatively in the next chapter. Which were also aimed at developing link of proposed BSC perspectives with the desired strategic outcome i.e. the achievement of National Strategic Aims and Objectives? The general methodology adopted during the interviews was that the *causal story* was presented to the respondents and their comments were invited on the determinants (Luna-Reyes and Andersen, 2003). This set up served as triangulation by integrating qualitative as well as quantitative findings (Amaratunga and Baldry, 2001) which supported some of the desired research expectations.

As mentioned earlier on that there are no standard means and approaches of collecting as well as analyzing the qualitative data, during this study however, *cross case methodology* has been employed to analyze the field data using *cross case analysis* (Patton, 1990), to facilitate comparison among cases, data was coded into three main categories and properties of each category were explored (Douglas, 2003). The properties of various categories according to different constructs were grouped together to perform comparison, discussion and to interpret phenomena (Patton, 1990; Seale, 1999). There were three major categories of respondents from all the three service as shown in table 5.1. Officers representing Army, Navy and Air Force have been coded as A1-A10, B1-B5 and C1-C5 respectively for cross comparison and cross analysis.

### 5.4 In-Depth Interview Profiles

While selecting cases for interview it was aimed to target those cases having an enriched firsthand knowledge of management. Therefore, care has been taken while selecting cases for interview that such officer should have vast service experience, especially the experience of staff duties, good qualification preferably those officers who have done foreign courses and foreign assignment as Naval Attaches. Because officers having foreign exposure during deputations abroad are having lot of knowledge of other cultures and working of their defense forces on their disposal. Especially those officers who have performed duties as naval attaches in USA and Europe were of particular interest as number of these
countries is using BSC as management tool even in their defense services. Especially USA defense forces take pride in having earned the Hall of Fame Award for successfully implementing Balanced Scorecard.

Total 20 respondents were selected given it huge size 10 respondents were selected from Army, whereas, 5 each from Navy and Air Force. One of the interview cases from Army was reluctant to respond his reasons were recorded in the protocol sheet and his replacement was sought. Each interview on the average took 45 minutes but in certain cases mutual interest and easiness helped stretching interview to even beyond 60 minutes. Each interview was recorded for latter on recalling and taking necessary notes, but interestingly none of the case was allowed sharing of his verbal communication and name with any third person. The profile of each respondent has been tabulated in table 5.1.

5.5 Findings of Qualitative Data

In this section findings and cross case comparison have been integrated, the integrated cross case analysis greatly helped in constructing conceptual model and provided strong basis for understanding the underlying issues. Though the main purpose of this qualitative study was to find feasibility of proposed perspectives for Balanced Scorecard and to explore the acceptance, trust and willingness of those leaders and managers who are spearheading the management in all three defense services, however, this process was developed through some integrated factors. Therefore, influential factors about all the perspectives along with their degree of influence have been discussed first in the ensuing paragraphs. These perceptions and views have been captured using Interview protocol (Appendix II).

5.5.1 Strategic National Defense Objectives

Achievement of National Defense Objectives is the dependent factor of this research. Lot of useful discussion was generated about National Defense Objectives as it is not a tangible thing and is rather intangible, therefore, its physical manifestation and comprehension by the lower ranks of the defense services is not possible. As interview case A2 elaborated:

“General public is not very much clear on the subject that is why most of the criticism that is directed on the defense services by the public is of being non productive, they being the tax payers do have the right, but at the same time they do not have much awareness about the National Grand Strategy from where all other state institutions derive their respective strategies. Supreme to the National Grand Strategy are the national Aims and Objectives in the support of which all other national strategies exist. Therefore, National defense strategy is chalked out to support the Grand National Strategy, whereas, defense forces strategies are made to support the National Defense Strategy”
The above contentions of A2 are considered supportive to the researcher’s contention that defense strategic aims are actually the Grand National Aims and objectives. The researcher also tends to agree that general public being a stake holder do have the right of criticism of the actions of the defense forces but at the same time it is also an acceptable phenomenon that during peace time public remains much incomprehensive about the role and performance of the defense services. As B1 contended:

“Wars do not happen as a matter of routine, where you can judge their performance on regular basis, neither the war is only means of assessing the effectiveness of any military. There may be incidents where in a nation’s life time no war takes place, that does not mean that they should not have defense forces. Mere the fact that your enemy knows that you own a weapon, deters him to attempt any aggression against you proves that your investment to own that weapon was not a waste”

He further quoted the Quranic reference to support his argument which states as follows:

“And prepare against them whatever you are able of power and of steeds of war by which you may terrify the enemy of Allah and your enemy and others besides them whom you do not know [but] whom Allah knows. And whatever you spend in the cause of Allah will be fully repaid to you, and you will not be wronged. Al. Quran (08: 60)”

It is deduced from the contentions of B1 and quranic reference that to own defense forces is a strategic defense requirement, as it deters aggression from any future aggressor to be. It also makes it clear that such strategic fundamentals because of not having their physical manifestation are incomprehensible by the general public who are the stake holders being tax payers and contributing funding for the maintenance of National Defense Forces. (A3, A4, B3 and C2) were collectively of the view:

“Existence of defense forces support the Grand National Aims and Objectives as well as Grand National Strategy in variety of ways: (1) at the foremost, they help to thwart any aggression there by cultivating a sense of security among the public. (2) It earns the nation a respectable place among the comity of Nations. (3) It helps to integrate varied masses of nation by having a reasonable and proportionate representation of all of them in the defense services.”

The researcher tends to fully agree with the contentions of all the four cases. Especially for a country like Pakistan, role of the defense services to integrate varied masses i.e. Punjabies, Sindhies, Serhadies and
Balochies of Pakistan cannot be denied as the defense forces have their own means of educating its personnel and creating unity among all ranks and files of service remains their major priority. When such personnel go back to their native people they help in correcting their wrongful notions as they get to know the reality on ground and working of defense services. As A5 and A7 further highlighted:

“All three defense services of Pakistan are running their own respective education directorates, which are contributing to Nation Building in a big way. Other than running general schools i.e. Army Public Schools, Faujee Foundation School, Bahria College & Schools and Air Force Schools and academies through Fauje, Bahria and Shaheen Foundations; Pakistan defense forces are also running number of cadet colleges/Military colleges which are a great source of Nation Building and National Integration. Most importantly Pak Army has recently started Military College Wana and Military College Sui, the areas considered hub of fundamentalist and Jehadi organizations who are exploiting the natives of these areas due to their lake of education. At the same time Pakistan Navy has started Cadet College Ormara exactly on the lines of Military Colleges, where total free education is being given to the cadets of Baluchistan and 50 percent seats are allocated for them. Underlying aims and objectives of these cadet colleges is to integrate the masses of this area in the main national stream by providing the effective education. This indirectly supports the greater national aim to achieve national cohesion and unity to deny the anti state forces to exploit the people of these areas against their own country”.

No doubt that general Pakistani public is very much appreciative of the fact that defense forces through the above mentioned educational institution are doing the most sacred duty to the nation. There are many other cadet colleges which are totally autonomous but those are being governed by the defense services as Chairman Board of governors. In most of such institutions Principals/Project Directors are also either serving are retired Army, Navy or Air Force officers e.g. Cadet College Petaro, Cadet College larkana, Cadet College Punnu Akil, Cadet College Kohat and Cadet College Razmak etc. The researcher himself is the Principal and Project Director of Cadet College Sanghar. This college is situated in the remote and backward area of interior Sindh, but having supervision by naval personnel and Chairman Board of Governors and principal being from naval background; earns a lot of good will for Navy and indirectly for defense services. A number of alumnae’s of this college have joined defense forces and other reputed institutions. Their successful education at this cadet college is a win win situation for the parents, individual and at greater national level it serves the strategic aim of achieving National Integration. Hence it proves that defense services are a means of supporting the greater National Aims and objectives in a Varity of ways.
B4 and B5 were of the view:

“We do agree that defense forces are a means of earning international repo and good will when they are performing their international duties as part of UN body or International Peace keeping force. One thing which we generally fail to comprehend is that defense force is also a tool that can be used in the support of foreign policy and to run International diplomacy. For example flag showing by the visit of naval ships to Allied countries as well as other countries is a mean of projecting power on international shores. When visiting allies, you earn their good will in a way that they perceive you as a potent ally whose friendship could be useful to them and they may get into some defense contracts and may like to send their officers or soldier to avail training courses in your country, which could be a source of earning international good will as well as earning revenues and the respective defense force there by contributes to the achievement of grand national aims and objectives. It helps projecting military prowess on the international shores and indirectly supports the greater national aim of keeping your merchant fleets safe and secure, which are bringing raw materials for commercial activities from around the world. Deployment of US naval fleet in all the oceans of the world; especially at the vital choke points is the best living example of the same”.

In this contention of B4 and B5 it is quite evident that Naval forces as part of overall National Defense Forces have quite an important role to play i.e. to keep the sea lines of communication open for the purposes of national trade which has an important link with the national economy serving grand national purpose as the prosperity of a nation is much dependent upon the health of the national economy. In case of Pakistan our 95% National trade is sea borne. Almost 70 percent of POL requirement is imported from the Middle East countries and a number of commodities are exported to the other nations to earn foreign exchange. If sea lines of communications are not made secure by Pakistan Navy, the country shall suffer gravely, whole national economy shall grind to halt and will lead to a chaotic situation with unbearable consequences. Further more in the modern era economies have become interlinked and the bulk of transportation that can take place through sea is unparalleled and not possible by road or air transportation.

(A1, A10 and B2) were of the view:

“In the face of Asymmetrical Warfare which has been unleashed against Pakistan, defense forces of Pakistan are continuously on the fight to serve greater purpose of saving the motherland
and thereby serving the greater national cause. It is a war in which there is no visible enemy and is the most dangerous and most harmful in nature, where your own people have been made to stand and fight against you.”

This researcher tends to fully agree with the contentions of (A1, A10 and B2) that Pakistan defense services through their sacrifices again Asymmetrical Warfare have participated to ensure the National Security in a big way. The Swat and Zarb-e-Azab operations against Taliban forces were a great success of Pak Defense Services in restoring the confidence of public in defense services.

(A6, A9, B1, C1, C3 and C4) were unanimously of the view that after attaining strategic Nuclear Weapons, which are supposed to serve as strategic deterrence to maintain strategic parity with our traditional enemy India and is a mean of thwarting any nuclear aggression against the country; strategic role of defense forces has become undeniable fact, because this strategic deterrence is dependent upon the defense services for its manifestation. C1 felt strongly that:

“Existence of strategic deterrence is meaningless without thorough involvement of Defense Forces. Most importantly without Second Strike Capability\textsuperscript{39}existence of strategic capability remains incomplete and submarine is the only viable platform which can provide such capability, as it was the existence of this second strike capability in the shape of strategic nuclear submarines (SSGNs) with nuclear capable missiles onboard, which kept the nuclear holocaust between the two rival super powers under control during the cold war”.

The researcher fully agrees with this very important contention of C1, which amply highlights the very strong link of defense services with the strategic national aims and objectives. This observation of C1 proves direct strategic importance of defense services at grand strategic level.

Finally A8 and C5 observed:

“Yes we do agree that when defense forces are operating in an international peace keeping role it does enhances their stature as well as international repo and it as a matter of fact supports the foreign policy by earning international good will”.

It also emerged during the discussion that naval forces especially have a lot of foreign policy element imbedded into their normal operations. For example during the tsunami\textsuperscript{40}that occurred in 2005 in Indian ocean killing hundreds of thousands of people living along the coast of Thailand, India, Indonesia and
Sri Lanka; the support rendered by the Pakistan naval crew members in Thailand was a great source of earning international good will by flag showing in these regional countries. The efforts were especially appreciated when PN crew members rescued hundreds of tourists stranded at the Maldives Islands.

5.5.2 Purpose of Defense Services

The perspective of purpose, which is an independent variable and its positive correlation with the dependent variable “Achievement of National Strategic Defence Objectives”, has already been proven in the theoretical part in previous chapter. In the literature review section it was established that understanding of the very existence of defense service by its personnel is of vital importance for their better performance. The continuous insightful understanding of purpose of existence all the time by the personnel of defense services has therefore, been proposed by the researcher as one of the prime perspective for BSC.

During the qualitative data gathering the interview cases (A2, B1, and C2) assertively supported that understanding of the purpose of existence by personnel at all time gives them positive motivation to perform and prepare themselves for their future assignments of any nature required to be performed at any time and space. A2 shared his views on the subject which are quoted as under:

“It is strongly in built into the routine training of military personnel to keep them always aware of the purpose of their existence. Most importantly it is engrained in the minds of especially the officer’s corps that they should always have their personnel positively motivated by making them to realize and reemphasizing upon them on continuous basis that their mission is the most sacred one and most important one for the defense of their mother land. We are lucky that our religion helps us in achieving this goal easily, because according to Islam the concept of going to war for the rightful cause and laying down you life in this process is the noblest act”

However, while discussing the above religious assertion of A2 with other interview cases, e.g. (A2, A3, B2 and C3) they had some apprehensions about the way of educating lower cadres. A nd A2 spoke out of their experiences quoted as under:

“There had been incidents where some of the regular defense forces personnel ended up with Taliban and Al-qaida elements in the name of jihad and were made to wage war against their own colleagues or the force of which they had been a part. This proves that religious education though helps in motivating personnel positively, but most of the time
this job is left to senior lower rates having an influence or inclination towards Taliban or other non state elements who tend to indoctrinate young minds to the agenda of some jihadi elements. I therefore, strongly feel that this religious job should not be left to lower ranks or the Khateebs of a garrison mosque, rather it should be carefully regulated through better education and right indoctrination of personnel”

The researcher fully agrees to above very important observation of A2, because during post attack analysis on Mehran Base, GHQ Rawalpindi and kamra Bases; it was revealed that these attacks were conducted with the support and guidance of some inside elements. So it leads to an important learning that process of educating personnel about the purpose of their existence is not fool proof or ideal rather it needs to be carefully regulated. It should not be every body’s business to educate young soldiers about Islamic concept of Jihad. In the light of above observation of A2 it may be inferred that methodology of education of defense services personnel about their purpose of existence is not fool proof and is generally left to the people who happen to carry the influence of some foreign extremist elements, which might have been learnt inadvertently by attending to wrong gatherings.

(A5, B3, and B4) collectively noted that perceptions of personnel of the actual purpose of their being in the force some time gets affected or blurred when they come across general populous and they happen to listen to all sorts of people. B3 spoke out of his experience which is quoted as following:

“When our soldiers go on leave most of them use that time to join Tableeghi Ijtemaas, such religious congregations are open for all to join without any checks or balances. These are the places which are penetrated by extremist element like Al-Qaida especially targeting young soldiers on leave and using their belief system due lack of education inspire them for free lancing jihad. The only way to avoid youngsters from falling into such traps is an effective but continuous education. Further more such religious congregations should be strongly prohibited in the garrisons or cantonment mosques”.

This observation of B3 helped this researcher to conclude that keeping Purpose of defense forces continuously ingrained in the minds of the personnel is of ought most importance and is of strategic value. Failing in this effort may be of grave consequences, as it may lead the personnel to imbibe foreign notions which may not be supportive of strategic objectives of the defense services. It may most importantly lead to lack of discipline and unity which perhaps no defense service of its salt can afford, because in such circumstances personnel may become a directionless mob instead of a disciplined lot.
(A4, A7 and C1) collectively made the following observation out of their military history knowledge; same has been quoted as follows:

“Military history is replete with such examples where the armies having correct indoctrination of the just cause of their fight i.e. correct understanding of their existence and of the reasons to go to war, have been able to overcome armies even superior to size and resources to them. Almost all battles of early Islamic history and even the latter on can be sited as such examples. The Battle of Badar, Ohad, Khundauk and Yermook as well as battles of Gebraltor in Spain is the relevant examples. Then during the Vietnam War defeat of super power like USA on the hands of fully motivated with just cause Viet Kong Gorillas is also such example”

(A6, A8, A9 and C5); Made a pertinent observation about the requirement of continuous process of indoctrination of purpose. They collectively think that most of the onus of this important duty lies on those who are in the leadership role. But reality on ground according to them is that officers generally seldom come across their junior soldiers and most of the time they work in the company and under the guidance of their senior colleagues. It is therefore, important that the training of these trainers be given particular attention. Requirement of such training and the concern shown by senior interview cases above; amply highlights the importance of Purpose and its consideration as one of the perspective of BSC.

Finally (A10, B5 and C4) unanimously emphasized the requirement of institutionalized indoctrination of personnel. B5 while speaking out of his experience shared his following observation:

“During my course of service I have noticed that there is no formal mechanism of educating especially our troops on the subject of Purpose of their existence as a part of defense services. It is generally thought by my most of the colleagues that it is inbuilt in our military training process. However, I differ from their thinking. Indoctrination about purpose needs to be addressed as a proper subject, instead of leaving it to junior leadership. And it should remain a continuous concern of senior leadership to take feedback on this important subject and make necessary and timely interventions when ever so required”.

This pertinent observation of B5 lays added emphases on the requirement of giving focused and formal attention to the subject of understanding of Purpose by all ranks and files of the defense services.
5.5.3 Resources

As this study has been anchored in the Resource Based Theory and during the literature review, Resources both human and material emerged important qualifiers to be one of the perspectives of BSC being envisaged for the defense services of Pakistan through this research. On the other hand, major utilization and the focus of BSC; is to make judicious application of resources to accrue maximum benefit.

Interview cases (A1, A8, B2 and C4) collectively highlighted that potency of a military depends upon the fact that how effectively it is equipped with the right resources and then the availability of such resources should be thoroughly ensured/understood. As A1 shared his following important observation:

“Military resources fall in two categories, Material and Human. However, an effective force is known for the quality of its human resource, because it is the man behind the gun not the gun that matters. The Arab Israel War of 1967 is a relevant example in this regard, where Israeli army being much smaller in size but having well trained human resource was able to overcome the combined Arab armies who lacked training in the warfare and discipline”.

(A2, A5, B5 and C2) on the other hand observed that keeping abreast with the latest technologies in the field of warfare cannot be overlooked and C2 made following observation:

“Sometimes a well disciplined and well motivated army may lose grounds if it is not keeping pace with the changing technologies, especially in this modern era no army of the world can take margin of information and technology. If your enemy detects you before you come to know its presence then you are destined to dome. This is an era where due to tremendous advancements in the field of technologies, wars have become invisible. You have to locate your enemy much before the visible range and have to launch weapons miles and miles away from the enemy”.

A pertinent observation was made by, (A3, A6, A9, B1 and C5) about the knowledge of available resources. As B1 highlighted:

“Military organizations are huge in size and resources. It has been observed that at time big inventories of resources are lying unused over the years and live their shelf lives without any usefulness, whereas,
tremendous capitals are involved in procuring these resources and in most of the cases these funds are in the shapes of costly foreign exchange. This anomaly points squarely towards lack of management capability. Had there been a proper stock taking procedure institutionalized, instead of wasting such material resources those could have been used for the training purposes or these might have not been stored or should have been stored at the right time and space.

The foregoing observation of B1highlights the requirement of material resource management and it can be deduced that having resources is one thing, but managing them is even more important. Weak management can lead to a chaotic situation where the resource is available but cannot be located in the sea deep ware houses due bad inventory management.

A9 further brought to the notice that:

“Such lack of knowledge exists even in terms of Human Resource. I have observed during my career that at many a time trained HR is available in the organization but the management is not able to locate it. And he or she is performing some other job which is not at all related to the qualification that those personnel have on their disposals. Such ill management defies the common saying, “right man for the right job”. Such ill planning is harmful in two ways; (1) firstly the individual who is performing an unrelated job becomes de-motivated, as he or she knows that the job which they are performing is not related to them and whatever qualification they have is going waste. Because naturally all human beings have an inner motivation to do something useful, this becomes a source of their job satisfaction. (2) Whatever job is being undertaken by them, certainly they cannot bring quality to it and it is under performed. (3) Capital resources spent on such qualification go waste”.

(A4, A7, A10 and C3) all these four interview cases laid lot of emphasis on development of human resource. As they collectively had a conviction that come what may, if the human resource which is the actual production of military organization is not qualitative in nature given best resources will go waste. C3 narrated his conviction as follows:

“As the most rapid advancement is taking place in military arena and the new equipment and weapons are becoming more and more intelligent. Given this fact and in order to drive maximum usefulness from such gadgetry, it is but binding on defense services management that HR should also be trained on the equally sound footings to exploit such weapons and equipments. It is all the more important for Pakistan Defense services where
individual joining forces come from rural areas with weak academic backgrounds. Where it is an appreciable fact that Pak defense services have to put in tremendous efforts to educate and train such individuals with lot of hard work, Government also have to improve the overall literacy rate in these rural areas from where most of personnel are joining forces to share the burden of defense services”.

This strong above reckoning to train the HR on modern lines is an undeniable fact and supports the conviction of the researcher established after thorough literature review that HR is the most important resource that military organizations possess. These assertions also vindicate the theoretical correlation established during the quantitative analysis between Resources and Achievement of National Strategic Defence Objectives, as well as researcher’s conviction to propose Resources as one of the Perspectives for BSC.

(B2, B3 and C1) had been unanimously of the view that a good balance should be struck between Material and Human resources Development. Any undue emphasis on just one of them may not be useful. C1 shared his views on the subject as follows:

“A good balance should be maintained between Human Resources and the Material resources. With the changing technology, effort should be first made to train the personnel prior the acquisition of such technology. In the same manner modern weaponry shall only be useful if the people are trained to exploit it well. A good example of this balance can be sited in the Israeli defense services. On the other hand if you look at the Middle East nations their military forces though bigger in sizes and given availability of petro dollars can muster whatever resources they desire, but adversely lack in the availability of quality HR. Most of these courtiers are meeting their Defense services HR requirement form other countries e.g. Pakistani retired defense forces personnel are providing their after retirement services in these countries. A big void in the balancing act of these countries defense services exist, due to which they are no match to their traditional foe Israel. A good military is always conscious of the requirement to grow its personnel at par with the growth in knowledge and technology as well as its size and assets. This growth should not be only in numbers rather in their grooming, training and enrichment of knowledge. Correct teeth to tail ratio should therefore, be maintained to maintain the potency of a Defense Service”.

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In light of the foregoing discussion, this researcher tends to deduce that proposing Resources as one of the perspectives of BSC gets supported. And the theoretical acceptance of this as an independent variable of the conceptual framework established during quantitative analysis also gets credence.

5.5.4 Enabling Processes

The enabling processes of an organization mean the procedures or step-by-step process through which its product or outputs or produced. An organization is considered as efficient as its procedures or enablers are efficient. Efficient enabling procedures are the ones through which output or outcomes are secured with minimum time and with minimum loss of input resources. What is the product of Defense services? It is an interesting question. In the opinion of the general public, defense forces are considered as a non-productive organization, which is not correct. The product of defense services is intangible in nature, as it is in the form of trained human resource. This difference can be easily assimilated if we compare the defense services personnel of a well-reputed army and not-so-well-reputed army, e.g., personnel from US military and the personnel from a third-world country’s army, e.g., Pakistan or India. This difference of product i.e. (personnel representing US and Pakistan or Indian military) is in the shape of difference in their competence, grooming, exposure, and knowledge.

The examples of some of the enabling processes in the defense services are: (1) recruitment (2) process of evaluation and Promotions (3) Selection for some important courses (4) aptitude tests for special courses or for some special assignments etc. (5) procedures of procurements to ensure spares support ability (6) Research and Development.

The interview cases (A2, A8, B2, C1, and C4) generally agreed that availability of efficient, responsible, and well-motivated personnel do help in achieving defense objectives. Although they did differ in the methodology of achieving such a desired body of men. Like A2 was of the opinion:

“To produce an efficient and disciplined lot who can withstand the rigors of war, I strongly believe that there should be stringent standards of discipline and we should never compromise on discipline. He further narrated that I strongly believe that such disciplined lot can be produced only through well-established traditions and a disciplined culture which works as an enabler. Such discipline can be ensured through well thought out disciplined processes”.

Whereas, A8 and B2 were more supportive of the fact that:
“Although requirement of physical discipline probably more in army is a fundamental requirement, but we need to understand that we are living in an information and knowledge age. This reality of 21st century is also relevant to defense forces, therefore, any military giving more emphasis on corporal training while remaining oblivious of producing knowledgeable workers will do so at its own peril. More and more equipment and weapons are becoming computer based and battles are being fought in cyber space. And the new warfare has therefore, been rightly named as computer and cyber warfare. An intelligent and knowledgeable soldier sitting in his air conditioned or cozy compartment can paralyze your all computer based systems and procedures not only of military organization rather he can bring down you digitally by attacking all your interconnected IT based National Infrastructure, whereby, your economy and other infrastructure shall come to a grinding halt. I am therefore; of the opinion that digital superiority in the knowledge is one of the supreme enabler”.

(A3, A8, B2, C1 and C4) were collectively of the opinion that recruitment and selection process is one of the most important enabling processes, as that is the time and space where trainable personnel should be carefully inducted. C1 for example observed:

“Recruitment and selection process is one of the fundamental and basic enabling processes, but is most critical in nature, as it is the stage where vital decision of inducting trainable human resource is to be made. I would say it is one of the most important filters to sift out and select only those personnel who can withstand the military riggers and also have that necessary academic aptitude to learn and apply new knowledge. Most importantly should have the ability to adapt to changing environment. But where I do agree as per questionnaire protocol that yes recruitment and selection processes are vital and fundamental to ensure the selection of right individuals, at the same time I feel that these processes should be reviewed to fit to the changing requirement. Meaning thereby, that accuracy and validity of said processes should be ensured for their effectiveness as per changing requirement of defense services.

It is an important contention of C1 where he has pointed towards the requirement of continuously updating various tests and scales employed at the time of induction. These need to be updated according to the changing requirement and criteria of HR requirement of defense services. As it is said that only constant in the world is change. With the changing technologies, equipments and weaponry in the defense
services, it is but natural that HR skills and qualification for defense forces personnel to improve proportionally as well.

A3 on the other hand felt strongly to update and observe the sanctity of various filters of performance appraisals; passing through which individuals are selected for next higher important posts till to the level of senior and strategic posts being important enabling processes. He made following observation:

“Defense forces are the classic example of an organization which is perhaps entirely dependent upon the quality of its Human Resource. This quality can only be ensured if we select right person for the right job, which depends upon the fact that how good are our appraisal and selection processes based on which personnel are promoted to various middle management and senior posts, because then they become part of decision making body. Quality of such decisions has strategic effect on the functioning of defense services”.

Interview cases (A1, A4, B3, B5 and C3) considered training of personnel being the most important enabler. And were of the view that quality of defense services personnel after right recruitment and selection perhaps entirely depends upon training methodology and training procedures of a defense service. A1 said in the light of his long service experience:

“I believe personnel of defense service are the mirror reflection of its training methodology and training procedures, because I believe the training is the most important enabler for the defense services, and I am a strong believer of the saying, ‘more you sweat in peace less you bleed in war’.

B3 while agreeing that training is one of the most important enabler, made following observation:

“The onus of training and education of its personnel for defense forces is very burdensome, because of the fact that about 80 % of defense services personnel come from rural areas where education standard is lower than the requirement of defense forces, because due rapid progress in new technologies and IT, military equipment and weapons are becoming more and more intelligent and computer based. It demands sound academic and training standards. Given this fact right exploitation of such military equipment and weapons is not possible if education and training standards are not updated on war footings. Pakistan defense services’ challenge is therefore, two pronged (1) firstly to uplift the education standards of its personnel and then training them on military equipment and weapons. So, in nut shell in my view training infrastructure of Pakistan defense services has the importance of Center of Gravity45.”
B5 on the other hand made very relevant observation by highlighting the requirement of making correct forecasting about the future threat perceptions and the requirement of future HR keeping in mind the tremendous changes taking place at fast speed requiring new standards of education and qualification.

A7 and C5 were supportive of the argument that acquisition of modern equipment in order not to take technological margin from a prospective enemy is very important. But any such acquisition should be done through a stringent procedure without any vested interests. So that any capability acquired should become a real military asset instead of becoming a liability.

A4 further pointed out an important aspect:

“As the most important asset in defense services is trained HR which is achieved through lot of efforts and hard work, however, employment and application of such trained HR is altogether a different story. Many a time it happens that right people having relevant qualification are not employed as required. This anomaly happens at the hands of one of the most important enabler i.e. Appointment and Transfer Department, known within the defense services as Military, Navy and Air secretariats operating at headquarters level”.

In the same context, A7 made a very pertinent observation quoted as following:

“Military hard ware acquisition/procurement is one of the most important enabling processes through which we acquire defense capabilities having strategic effect, because any capability so acquired firstly involves colossal amount of funds, which developing courtiers like Pakistan spare at times compromising important national developments. Secondly such capability is to survive may be for next many years in the services and if the contractual agreement especially when such capability is acquired from abroad is weak and not thought through well it may land the ultimate user; the defense forces in a perpetual trouble. Any capability so acquired becomes liability instead of becoming an asset. Such anomalies happen due weak procurement procedures, whereas, it is one of the most important but most neglected enabling process through which we have to equip our defense services for future assignments. It is regrettfully shared that some time vested political interests and expediencies raise their ugly head and military equipments acquired in such circumstances remain troublesome for all times to come and very precious national exchequer is wasted”.

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In the light of above important observation of A7 it can be deduced that acquisition of military hardware is one of the important enabling process and peril of ignoring it may have dangerous implications which are strategic in nature.

Interview cases (A5, A9 and B1) did agree to the requirement of making general working processes shorter and efficient and longer inefficient hierarchies must be struck down. B1 for example highlighted certain management snags which are quoted as follows:

“Strong and rigid hierarchies are a great source of trouble and hurdle in the way of creativity and innovation as well as slowing down the organization. All reputed defense forces of the world are continuously endeavoring to make their day to day working processes shorter and efficient and in most of the cases are becoming computer and IT based. And the time and assets saved in this process are being utilized for better training to meet future challenges”.

Views and comments of most of the interview cases are strongly supportive of the Importance and vitality of Enabling Processes, which helps deducing that Enabling Processes have been rightly assumed as one of the perspectives for BSC for Pakistan defense services. It also gives credence to theoretical acceptance achieved through quantitative research in the previous chapter.

5.5.5 Building for Future

As it is said for defense services,” time period between two wars is the allowance to prepare for the next”. To prepare effectively for the next unseen wars, much depends upon the strategic thinking of the top management. It involves at the forefront National Leadership who is to give the direction for future national goals and objectives, possible opportunities, Challenges and the threat perceptions. It is the aspect of future threat perception which is related to defense services of Pakistan, for which preliminary directions are to trickle down to the military leadership from the future defense policy of the government. With such foregoings and assumptions mustered through literature research,” ‘Building for Future’ was proposed as one of the perspectives for BSC of defense services of Pakistan. Interview case (A1, A5, B2, C2, and C5), While collectively agreeing to the requirement of Building for Future highlighted some pertinent points. For example A1 shared his perceptions on the issue as follows:

“Right comprehension of possible future threats to the nation is extremely important to prepare the defense force for future wars. Misplaced and wrong perceptions made through tunnel vision would lose the vital sight and focus on future defense needs. Strategic
directions for this important future need are to be given by the top National Leadership, then comes the role of war colleges and National Defense College (NDC) where such directions are deliberated thread bare by war gaming various scenarios and some pertinent recommendations are made for procurement of military capabilities for future defense needs. So that investments so made do not go waste. Having said so, I fully agree with your contention that yes developing defense services to thwart future threats is of vital importance”.

Interview cases (A2, A7, A10, B4 and C4) made a joint observation that given the fact that capital resources are not unlimited especially for a developing country like Pakistan much care should be taken to make exact forecasts. B4 elaborated this reality as follows:

“Where it is important that in this age of technology and information no force of its salt can afford to take margin of new technologies, however, truth remains that resources are limited and at times funds are diverted to defense needs compromising many development needs of the nation e.g. education being one of them. It is therefore, important that building defense capabilities for future must be well deliberated, before diversion of funds. In nut shell correct teeth to tail ratio should be ensured”.

A3, A8, B1, B5, and C3 observed in unison that while building defense forces for future, development of HR, which is the actual strength of defense services gets neglected, whereas, building and developing personnel to shoulder future responsibilities needs to be given an equal importance. Personnel grooming, education and having right person to handle future technologies and military hardware is but a natural requirement of defense services. C2 highlighted this fact as follows:

“I think where developing for future is of great importance for defense services and it needs catharsis on continuous basis both by National leadership and top military leadership. But most of the time inclination of the concern to build for future is towards building up material capabilities and the development of Human Resource gets neglected. Whereas, I believe it should also get an equal importance both in terms of producing educated users to handle modern weapons and equipments as well as preparing future leadership to provide appropriate replacements of outgoing senior leadership”

This observation of C2 is considered very pertinent, especially in terms of providing replacement for senior leadership. Because defense services are not corporate civil entity where they can ask Head Hunting organizations to manage top leadership for Defense Services, neither it is possible. Future
leadership to fill the places of outgoing senior strategic leaders has to be developed by defense services themselves and such system within Pakistan Defense services is also working well, but showing of concern by C2, is also well placed as he perhaps trying to point out that training of such leadership should also be as per the requirement of their future expected assignments.

Lastly A4, A6, A9, B3, and C1 have also shown most of the concern for developing for future in terms of HR. They believe:

“It is very important especially for the officers’ cadre who are supposed to take up future leadership of armed forces that they do have an international exposure through courses abroad as well joining friendly operational exercises. It helps to broaden the horizon of defense forces personnel and also allows them to observe for themselves that how other nations under take the task of defense of their mother land. On return from such foreign assignments reports generated by these officers should be thoroughly analyzed at Headquarters level to accrue maximum benefit. I can say out of my personnel experience that such reports most of the time do not capture desired attention and foreign knowledge so acquired goes waste”

5.5.6 Leadership and Management

It has been amply discussed in the literature review that leadership and management qualities both of the strategic managers and the middle managers do have a contingent effect on the creation of positive synergies. Strategic decision taken by the top management has the basic role in developing strategies whereas, implementation of those strategies is ensured through middle and front level management. If the decision making at all these levels is well thought out then it will be a source of right motivation for the personnel to perform to their utmost and material resources shall be put to their best utilization. All these functions while heading in the right direction create positive synergetic force towards the achievement of National Strategic Aims and objectives. Balanced Score Card just helps in making the integration of all these leadership and management activities in the right direction to remain focused on the singularity of purpose. Leadership and management have not been proposed as one of the perspective of BSC but it has a contingent effect on all activities of various perspectives of BSC while these are in action.

During the qualitative survey interview cases were provided questionnaire protocol to capture their perceptions on the subject. Responses are mostly in the affirmative, however, their preferences differ group wise, and e.g. interview cases A2, A7, B3, C2 and C5 were of the view that all functions of defense
services are performed under the supervision of officers but levels may differ, therefore, they all agreed to the basic fact that all functions right from the strategic level to a foot soldier do get effected by the leadership/management of those who are in the supervisory role at these levels, but most important effect is of those who are at the strategic level. A2 was of the view:

“I do agree that actions of top leadership being strategic in nature affect all functions of defense services. It is therefore, required that there should be a very close link between the national top leadership and the top brass of military involved in the strategic decision making process. Both the entities should be on one page as far as the consideration and realization of national priorities is concerned, so that military decision making also takes place in the best interest of the nation. AS it is said, ‘mistakes made at the strategic level cannot be corrected at the operational level’.

Interview cases A1, A5, B4, B5 and C4 were of the view that major contingent effect of leadership during day to day working and functionality of defense services is from the middle management. As A5 highlighted:

“As all most all daily field functions are performed under the direct supervision of officers performing at middle management level i.e. (from a junior officer to Major level.) So I do agree that this class of junior officers have most of the contingent effect especially during the implementation of institutional policies. During implementation of any new change this class of officers is on the forefront, furthermore, these are the officers who pass maximum of their time with frontline troops and have most of the time direct influence over them”.

On the other hand interview cases A3, A9, B1, C1 and C3 were of the view that officers have an important influence over their subordinate personnel when they are in the role of change agent. As B1 highlighted:

“Change management is one of the most important tasks where officers as leaders mostly get directly involved with their subordinates while spearheading new change as change agents. They have an important task of educating the subordinates about new change, to apprehend their misgivings and to motivate them to embrace new change for good”.

There was an interesting discussion on the subject that whether leadership is important to implement procedures or the management qualities. The group of interview cases, which were more vocal and participated with lot of vigor in this discussion consisted of ( A4, A6, A8, A10 and B2) few were in
favor of managerial qualities, whereas, most of the interview cases recommended a good mix of both. As B2 made a very relevant observation:

“It may be generally argued that for implementing military procedures one has to be a good manager, but in my reckoning in order to make troops to follow procedures willingly; is a function of leadership. Secondly, to enhance the quality of work performed by following whatever procedure are in vogue, influence of leadership qualities cannot be over ruled. I therefore, can confidently speak out of my experience that for a good followership of personnel even on procedures a good mix of both leadership as well as management qualities is mandatory”.

In the background of discussion and views of various interview cases it may be deduced with good degree of confidence that Leadership/Management qualities do have a contingent and moderating effect on the functioning of proposed Perspectives of BSC.

5.5.7 Creation of Positive Synergy

The conclusive effect of BSC is to create inter departmental cohesiveness in order to achieve synergetic effect of all efforts being made individually by various departments of an organization. Though this is the desired outcome for all the organizations world over but perhaps defense forces as a strategic organization needs it the most. Even the multi business industries aspiring in the fields of general goods, Telecommunications, finance, chemical and retail do make efforts to achieve synergy among their various business units with an utmost priority in order to enhance their performance. Synergy means ‘Collective Action’ and has its roots in the Greek word ‘synergos’, which means working together (Merriam – Webster Online Dictionary 2006). Ansoff (1965) introduced the concept of synergy in the strategic management. He used the term synergy to describe effect that the combined return of a whole is greater than the sum of the return from the individual parts, “Synergy is the effect that the combined return of the, “whole” is greater than the sum of the returns from the individual parts”. Combining the parts into coherent whole is costly. Or we can say synergy creation needs to be managed and commits resources. The main aim of BSC is to align all actions of an organization towards achievement of mission; the climax or the zenith of such alignment results in the creation of motivational force for personnel, whereas, combined effect of physical actions results in the creation of a positive synergetic force; which helps in the achievement of National Defiance Objectives.
It has been established in the literature review section that Creation of Positive synergy is an intervening variable and is temporal in nature i.e. it is produced as function of time i.e. when the activity of BSC perspectives is in action. It evolved as intervening variable during the discussion and study of conceptual framework. Its assimilation can be in the form of collective effect of all the perspective of BSC when these are in action in unison. None of the proposed BSC perspectives can generate synergy stand alone.

Interview cases A1, A5, B3, C2 and C5, generally agreed to the researcher’s contention that thoughtful implementation of policies and procedures creates greater positive motivation or synergy for the personnel to perform better. A1 was of the view:

“Human beings are complex machines and they cannot be made to deliver like robots. Their performance cannot be measured as fixed phenomenon; it is rather changeable with the changed ground realities. Although for most of the military functions there are laid down procedures for their performance. But quality of performance shall differ according to the motivational level of the person who is performing it. If it is performed willingly that is the time when individuals are riding synergy wave and quality of output shall be outstanding”.

Interview cases A2, A7, B2, C2 and C4 were of the view that management synergies are created when functions are taking place in unison and all other resources required to complete those functions are synchronized well at required time and space. Achievement of such synchronization of resources is made possible due application of BSC (Kaplan and Norton, 1996) as learnt during literature research. A2 shared his following perceptions’ on the subject:

“Where I do agree that successive achievements by personnel give them more and more motivation to perform even better as positive motivation or synergy is created. However, this most desired effect has its own demands i.e. resources need to be synchronized well at the required time and space. This synchronization can only be achieved if all organs of a defense force are working in a disciplined and cohesive manner. This also involves external support as well at the state level especially for the provision of resources. Most importantly moral support of general public is also extremely vital, as it gives confidence to the personnel that they are performing their duties for the good of their countrymen.

This pertinent observation of A2 is fully concurred, and whatever concern is highlighted by him can be addressed through implementation of BSC as learnt in the literature review section.
Interview cases A3, A6, A10, B1, and B5 did agree that reputation of defense forces both at National and International level motivates the personnel to perform even better. As B1 said”

“Good reputation of defense forces creates a positive image of its personnel among general public, and such reputation creates a high self esteem among the personnel giving them feelings of being useful for their nation and future generations. While riding such wave of positivity and high motivation officers and soldiers tend to perform even better which causes successive achievements creating performance synergies”.

A4, A8, A10, B4 and C3 all these interview cases collectively think that onus of creating motivation and management synergies lies with those who are in the leadership and management role and depends upon their good or bad leadership and management qualities. As A4 said:

“Even given best resources at right time and space and well trained soldiers, a bad leader may lead them to defeat. Good leadership and management qualities are therefore, of vital importance to create management synergies, which is mostly in the shape of high motivation of personnel. I therefore, fully agree with the contention that good leadership and management qualities have a strong bearing on the overall performance of personnel. History is replete with many examples where a good leader led his people extremely well in the face of uncertainties’ and snatched victory from the jaws of defeat”.

Having gone through all the above interview cases it is deduced that positive synergies are created when defense forces functions are taking place in a systematic and disciplined way. Such discipline and cohesiveness once created gives positive impetus to all organs of defense forces to perform well. Outside agencies whose contribution is vital for creation of such synergies are the general public and the government for providing moral support and resources respectively. However, above everything else good leadership and management qualities have emerged as an overriding influence for the production of positive synergies.

5.6 Synthesis/Analysis of Interview Cases

Findings of the cross case analysis have been synthesized in this section through combination of emergent qualitative reasoning using symbols of interview cases. The in-depth interview cases have supported theoretical reasoning and in certain cases have discovered new supportive evidence. Synthesis/analytical discussion in respect of each variable have been elaborated as under:
5.6.1 Achievement of National Defense Objective

The synthesis of cross case analysis in respect of dependent variable; ‘Achievement of National Defense Objectives’ has been summarized in table 5.2. Views of one of the case are divergent from the subject, whereas, remaining about more than 90% are supportive of selection of this dependent variable. B1 feels that mere existence of defense forces (DFs) helps thwarting the fear of aggression, and is considered supportive to the selection of variable as dependent one. The group A3, A4, B3 and C2 were of the view that DFs are a source of thwarting foreign aggression, integrating nationals of the country and earning international repute in the comity of nations all these fundamentals are contributory towards Achievement of National Defence Objectives.

A5 and A7 were supportive of the view that DFs have major contribution towards nation building, by raising important education institutions and rendering helping hand during natural calamities. A1, A10 and B2 were appreciative of DFs efforts to fight the menace of terrorism and Asymmetric warfare. B4 and B5 strongly felt that DFs provide a quite meaningful help in the support of foreign policy when nations are showing flags in other countries. A6, A9, B1, C1, C3 and C4 were remarkably appreciative of the fact that after attaining nuclear capability DFs’ strategic importance has been increased as safety and security as well as application of this capability is to take place through DFs. A8 and C5 said that DFs are a great source of earning international fame and repo when they operate as part of international peace keeping force. In the light of above supportive arguments of interview cases it is deduced that achievement of National Defence Objectives is supported by the Defense Forces. The Achievement of National Aims and Objectives have been rightly proposed as dependent variable to be secured through actions of Independent variable which are being proposed as main perspectives of BSC.

Table 5.2 Summary Report of Cross Case Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group cases with Convergent Views</th>
<th>Main theme of Convergent Views</th>
<th>Researcher Deductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement of National Defense Objectives</td>
<td>A2</td>
<td>General public not very clear about the subject</td>
<td>**Divergent</td>
</tr>
<tr>
<td></td>
<td>B1</td>
<td>Even mere existence of DF* is important</td>
<td>***Supportive</td>
</tr>
<tr>
<td></td>
<td>A3, A4, B3 and C2</td>
<td>Existence of DF thwart aggression, Integrate masses, Respectable place among nations</td>
<td>Supportive</td>
</tr>
<tr>
<td></td>
<td>A5 and A7</td>
<td>DF useful for National building</td>
<td>Supportive</td>
</tr>
</tbody>
</table>
B4 and B5  Support the National Diplomacy and foreign Policy  Supportive
A1, A10 and B2  Help in fighting terrorism and Asymmetric Warfare  Supportive
A6, A9, B1, C1, C3 and C4  An important element of Handling strategic nuclear Capability  Supportive
A8 and C5  DF are mean of earning international repo while operating as part of International Peacekeeping  Supportive

* Defense Service,
** Views of the group are divergent from subject,
*** Views are supportive to the subject

## 5.6.2 Purpose of Defense Services

The synthesis of cross case analysis in respect of *Purpose of Defense Services* has been summarized in table 5.3, which is one of the independent variable being proposed as one of the perspective of BSC. Mostly the views and responses of interview cases are supportive of placing this variable as perspective of BSC, except for the comment of interview cases A2, A3, B2 and C3 who showed their apprehensions about the method of inculcating purpose of existence in the minds of personnel, and pointed out that this important task is left to senior lower cadre, who having little knowledge sometimes mislead the individual i.e. towards extremist view. And they cited the examples of terrorist attacks at Meharan Base, GHQ, and Kamra base as an outcome of such anomaly.

A4, A7 and C1 collectively emphasized the need for correct indoctrination of purpose while agreeing and supporting fundamental importance of Purpose of DFs being one of the variables having its bearing on the dependent variable i.e. Achievement of National Defence Objectives. Whereas, A6, A8, A9 and C5 rightly highlighted the importance of indoctrination of DFs personnel on regular and continuous basis suggesting such task should be undertaken by the officers instead of leaving it to the lower senior rates only. Going a step ahead A10, B5 and C4 though supportive has highlighted the need to institutionalize the requirement of *Purpose of Defense Services*.

In the light of fore going synthesis of cross cases, it can be deduced with good degree of confidence that *Purpose of Defense Services existence* is a rightly placed variable and the correlation established with Dependent Variable in theoretical part is vindicated and supported through cross case analysis.

**Table 5.3 Summary Report of Cross Case Analysis**
### Variables

<table>
<thead>
<tr>
<th>Purpose of Defense Services</th>
<th>Group cases with Convergent Views</th>
<th>Main theme of Convergent Views</th>
<th>Researcher Deductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2, B1, and C2</td>
<td>Purpose of existence of DFs should always be ingrained in the minds of personnel</td>
<td>***Supportive</td>
<td></td>
</tr>
<tr>
<td>A2, A3, B2 and C3</td>
<td>Showed their apprehensions about the method of inculcating purpose of existence in the minds of personnel</td>
<td>Neutral View</td>
<td></td>
</tr>
<tr>
<td>A4, A7 and C1</td>
<td>Highlighted the need for correct indoctrination about the purpose of existence</td>
<td>Supportive</td>
<td></td>
</tr>
<tr>
<td>A6, A8, A9 and C5</td>
<td>Indoctrination should be a continuous process</td>
<td>Supportive</td>
<td></td>
</tr>
<tr>
<td>A10, B5 and C4</td>
<td>Indoctrination should be an institutionalized and regular process.</td>
<td>Supportive</td>
<td></td>
</tr>
</tbody>
</table>

* Defense Service, ** Views of the group are divergent from subject,
*** Views are supportive to the subject

### 5.6.3 Resources

The summary of cross case analysis in respect of **Resources** is given in table 5.4. It is one of the independent variable being recommended as one of the perspective for BSC for DFs of Pakistan. Almost all the cases are supportive of the fact that resources are vital for the growth of defense services; however, various interview groups have emphasized various natures of resources. For example interview cases A1, A8, B2 and C4 has laid tremendous emphasis on the quality and importance of HR, whereas, A2, A5, B5 and C2 has given more importance to the acquisition of new technologies and has declared that present age is of knowledge and information, therefore, Pakistani DFs should make their best efforts to acquire modern state of the art computer and weapon technologies.

Group A3, A6, A9, B1 and C5 has pointed one important aspect of having resources i.e. to know the available resources both in terms of material as well as Human Resource. And have highlighted that many a time qualified people are wasted as they are employed on unrelated jobs. At the same time, due delayed updating of stock inventories, many precious material resources cannot be located when so required. B2, B3 and C1 have drawn attention towards the requirement of striking good balance between development of HR and the material resources. HR should also be developed at par with the development and acquisition material resources.

Although all interview cases have supported the importance of **Resources** as variable having an influence on the dependent variable, but they have shown preferences group wise. Hence in the light of above synthesis it is deduced that theoretical correlation developed between dependent variable and **Resources**
as independent variable is confirmed. And it also vindicated authors’ contention of proposing Resources as one of perspective for BSC for defense services.

Table 5.4 Summary Report of Cross Case Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group cases with Convergent Views</th>
<th>Main theme of Convergent Views</th>
<th>Researcher Deductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources</td>
<td>A1, A8, B2 and C4</td>
<td>Has emphasized the importance of Human Rescore</td>
<td>***Supportive</td>
</tr>
<tr>
<td></td>
<td>A2, A5, B5 and C2</td>
<td>Has emphasized the importance of acquiring new technologies</td>
<td>Supportive</td>
</tr>
<tr>
<td></td>
<td>A3, A6, A9, B1 and C5</td>
<td>Have emphasized the importance of knowing the available resources.</td>
<td>Supportive</td>
</tr>
<tr>
<td></td>
<td>A4, A7, A10 and C3</td>
<td>Emphasized the importance of developing human resource</td>
<td>Supportive</td>
</tr>
<tr>
<td></td>
<td>B2, B3 and C1</td>
<td>Development of human and material resources should be balanced</td>
<td>Supportive</td>
</tr>
</tbody>
</table>

* Defense Service, ** Views of the group are divergent from subject,
*** Views are supportive to the subject

5.6.4 Enabling Processes

The summary of cross case analysis in respect of Enabling Processes is given at table 5.5. It is one of the independent variable being recommended as one of the perspective for BSC for DFs of Pakistan. The usefulness of interview cases in case of this very variable for the researcher was; that it became easier to classify various Enabling Processes. Various interview groups while agreeing to the importance of enabling process as one of the management pillar of DFs, has brought to forth some important enabling processes that might have not been possible otherwise.

A2, A8, B2, C1 and C4 thought that strict corporal discipline is an important enabling process, as main purpose of DFs is to produce men of character and discipline. Their major contention for this fundamental belief was that the outcome of defense services is a disciplined and well groomed HR. On the other hand interview group A3, A8, B2, C1 and C4 considered recruitment and selection as one of the important enabler, and have named it as first most crucial filter. Because in their view only those people should join the defense services who can stand the military riggers both mentally as well as physically.

Group A1, A4, B3, B5 and C3 gave preference to training as an important enabler and they believe that defense forces shall be as good or as bad as one’s training processes are. They professed that training
standards should be enhanced according to the changing military technologies and advancements in the military equipment and weapons. A7 and C5 also pointed out Procurement processes both national and international being important enablers as through it, equipment and weapon suppliers are selected because technology or equipment so acquired is required to survive for years in the service, therefore, if wrong selection of bidder or manufacturer is made; any such technology or ability acquired shall rather become a liability.

A5, A9 and B1, pointed out that day to day working processes are also important enablers. Efforts must be made to make them shorter and efficient to avoid slowing down of daily working. Big hierarchies and stringent working procedure should be changed with the efficient and less time consuming ones.

Although all interview cases have supported the importance of Enabling Processes as variable having an influence on the dependent variable, but they have shown preferences group wise. And have been helpful in enriching the knowledge of researcher about various classes of enabling processes. Hence in the light of above synthesis it is deduced that theoretical correlation developed between dependent variable and Enabling Processes as independent variable is confirmed. And it also vindicated authors’ contention of proposing Resources as one of perspective for BSC of defense services.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group cases with Convergent Views</th>
<th>Main theme of Convergent Views</th>
<th>Researcher Deductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabling Processes</td>
<td>A2, A8, B2, C1 and C4</td>
<td>Strict discipline standards are important enabler</td>
<td>***Supportive</td>
</tr>
<tr>
<td></td>
<td>A3, A8, B2, C1 and C4</td>
<td>Considered recruitment and selection as important enabler</td>
<td>Supportive</td>
</tr>
<tr>
<td></td>
<td>A1, A4, B3, B5 and C3</td>
<td>Considered training as most important enabler</td>
<td>Supportive</td>
</tr>
<tr>
<td></td>
<td>A7 and C5</td>
<td>Procurement processes are more important</td>
<td>Supportive</td>
</tr>
<tr>
<td></td>
<td>A5, A9 and B1</td>
<td>Stressed the making of general working processes shorter and efficient</td>
<td>Supportive</td>
</tr>
</tbody>
</table>

* Defense Service, ** Views of the group are divergent from subject,
*** Views are supportive to the subject

5.6.5 Building for Future

The summary of cross case analysis in respect of Building for Future is given in table 5.6. It is one of the independent variable being recommended as perspective for BSC for DFs of Pakistan; in the light of theoretical part of literature research and establishment of its relationship with the dependent variable.
Interview cases in respect of this variable were helpful in bringing out many different facets of ‘Building for Future’. Various interview groups while agreeing to the importance of Building for Future; as one of the management pillars of DFs, has brought out some important aspects of Building for Future.

Group A1, A5, B2, C2, and C5 strongly emphasized that correct threat perception about future threats and challenges is important before making future plans and committing resources to meet them. This is of strategic importance and lies in the domain of National leadership and top military brass involved in making strategic decisions. Any mistakes made at the strategic level of assimilating future threat may lead to make wrong strategic decisions, wrong and out of context future plans and wasteful commitment of resources.

On the other hand interview cases A2, A7, A10, B4 and C4 considered correct forecasting is of utmost importance to muster right resources both human and material while preparing or building for future. Whereas, researcher thinks that this is also related to the correct assimilation of future threats and challenges, because any such forecasts have also to be made keeping the ultimate mission in mind, and that mission is to ward of future threats.

At the same time interview cases A3, A8, B1, B5, and C3 gave lot of importance to the aspect of HR development through right education and training, as they think that it is the man behind the gun not the gun that matters. They made an observation regarding lack of technical and IT education of the personnel as most of the DFs personnel join from rural and backward areas, whereas, military technologies, equipment, weapons and other hardware is becoming more and more intelligent and sophisticated, which requires well trained and well educated personnel to handle them.

Lastly the group A4, A6, A9, B3, and C1 highlighted the importance of developing future leadership on sound lines, especially those who are expected to take up strategic posts. They were of the view that all such officers or senior rates that are expected to take up such position should be firstly selected with lot of deliberations and then they should be given good exposure and education through courses inland and abroad to broaden their horizons.

Although all interview cases have supported the importance of Building for Future as variable having an influence on the dependent variable, but they have stressed various facets of the same fundamental requirement. And have been helpful in enriching the knowledge of researcher. Hence in the light of above synthesis it is deduced that theoretical correlation developed between dependent variable and Building for Future as independent variable is supported through this qualitative analysis. And it also vindicated author’s contention of proposing Building for Future as one of perspective for BSC for defense services.
Table 5.6  Summary Report of Cross Case Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group cases with Convergent Views</th>
<th>Main theme of Convergent Views</th>
<th>Researcher Deductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building for Future</td>
<td>A1, A5, B2, C2, and C5</td>
<td>Correct threat perception is vital for Building for Future</td>
<td>***Supportive</td>
</tr>
<tr>
<td></td>
<td>A2, A7, A10, B4 and C4</td>
<td>Proper forecasting is important to muster Future Resources</td>
<td>Supportive</td>
</tr>
<tr>
<td></td>
<td>A3, A8, B1, B5, and C3</td>
<td>Developing HR is important to build for future</td>
<td>Supportive</td>
</tr>
<tr>
<td></td>
<td>A4, A6, A9, B3, and C1</td>
<td>Emphasized development of future leadership</td>
<td>Supportive</td>
</tr>
</tbody>
</table>

* Defense Service, ** Views of the group are divergent from subject,
*** Views are supportive to the subject

5.6.6 Leadership and Management

The summary of cross case analysis in respect of Leadership and Management the moderating variable is given in table 5.7. After the careful study of theoretical framework Leadership and Management was established as the moderating variable because BSC has to be implemented through those who are in the leadership and management role. The good or bad implementation shall depend upon the good or bad qualities of leadership or management of these officers or ratings who are going to act as change agent during this implementation phase as well as while taking feedback, designing interventions and making interventions. Leadership and Management, therefore, has a contingent or moderating effect on almost all the functionalities of Defense Services.

Interview cases in respect of this variable were helpful in bringing out many different facets of Leadership and Management. Various interview groups while agreeing to the importance of Leadership and Management; as being most important pillar of the DFs, has brought out some important aspects which were quit thought provoking.

For example group A2, A7, B3, C2 and C5 thought that most important role in the leadership domain is of those who are at the strategic level and are involved in making strategic decisions, because there decision has long term effects. Bad decision making at this level may be of grave consequences where whole nation may suffer. Whereas, A3, A9, B1, C1 and C3 thought that most important role of those who are in the leadership and management role is as ‘Change Agents’ who are to create necessary motivation and Buy In by the personnel for new incoming changes and such changes in the age of IT and rapidly
progressing technologies are quite frequent for which personnel need to be motivated to accept these willingly and commit themselves for learning more skills as per the requirement of new technologies.

Interview cases A1, A5, B4, B5 and C4 thought officers and Personnel performing at middle management level have major contingent effect on implementation of organizational policies, as they mostly come across the personnel during performance of management functions and that will also be true while implementing BSC. A4, A6, A8, A10 and B2 on the other hand suggested’ while asked which quality is most important leadership or the management that it should be a good mix of the both.

All interview cases have supported the importance of Leadership and Management as moderating variable having an influence on the operation of all Independent Variables, but they have stressed various facets of leadership and Management roles. And have been very insightful for the researcher. Hence in the light of above synthesis it is deduced that theoretical correlation developed between independent variables and Leadership and Management as moderating variable is supported through this qualitative analysis. And it also vindicated authors’ contention of proposing Leadership and Management as one of the contingent or Moderating variable.

<table>
<thead>
<tr>
<th>Table 5.7</th>
<th>Summary Report of Cross Case Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variables</strong></td>
<td>Group cases with Convergent Views</td>
</tr>
<tr>
<td>Leadership and Management</td>
<td>A2, A7, B3, C2 and C5</td>
</tr>
<tr>
<td></td>
<td>A1, A5, B4, B5 and C4</td>
</tr>
<tr>
<td></td>
<td>A3, A9, B1, C1 and C3</td>
</tr>
<tr>
<td></td>
<td>A4, A6, A8, A10 and B2</td>
</tr>
</tbody>
</table>

* Defense Service, ** Views of the group are divergent from subject,
*** Views are supportive to the subject

5.6.7 Creation of Positive Synergy

The aim of BSC is to align all actions of an organization towards the achievement of strategic objectives. The climax or the zenith of such alignment; results in the creation of motivational force for personnel, whereas, combined effect of physical actions results in the creation of a positive synergetic force; that helps in the achievement of National Aims and Objectives.
Summary of cross case analysis in respect of *Creation of Positive Synergy* the moderating variable is given in table 5.8. After the careful study of theoretical framework *Creation of Positive Synergy* was established as the *Intervening* variable. It has been established in the literature review section that *Creation of Positive synergy* is temporal in nature i.e. it is *produced as function of time i.e. when the activity of BSC perspectives is in progress*. It has evolved as intervening variable during the discussion and study of conceptual framework. Its assimilation can be in the form of collective effect of all the perspective of BSC when these are in action in unison. None of the proposed BSC perspectives can generate synergy stand alone.

Interview cases while agreeing to the basic fact of creation of management synergies while management activities are happening in an organized and well coordinated manner, have given some pattern of group wise preferences considered contributory towards the creation of synergies and motivation in the wake of management functionalities.

Group A1, A5, B3, C2 and C5 thinks, as the functions of DFs mostly take place through its personnel, therefore, higher motivation level leads to creation of higher synergies. Group A2, A7, B2, C2 and C4 believes that Management Synergies are created if required resources are synchronized well and are made available at the right time and space. Because they think that good planning and management will not be able to deliver if the required resources are not made available when these are enquired.

Interview cases A3, A6, A10, B1, and B5 brought up that Good reputation of DFs both at National and International level gives more motivation to personnel to perform well thereby creating mutual synergies. It is naturally inbuilt in all human beings that they want to have a good self opinion and high self esteem. Respectful reputation at home and abroad is great source for the personnel to have higher self esteem, which ultimately creates higher motivation and binds them as team to perform even better.

Group A4, A8, A10, B4 and C3 made a very pertinent observation by highlighting that Creation of Motivation and positive synergies have a proportional relationship with the leadership and Management qualities, meaning thereby, better leaders make better teams happen to create more willingness amongst the individual to perform even beyond the call of duty, whereas, if they are also equipped with good management qualities, it helps as a bonus or catalyst to create management synergies and enhances their leadership credentials.

Interview cases have generally supported the importance of *Creation of Management Synergies* as an Intervening variable, which is temporal in nature and is produced as result of the actions of Independent
variables under the influence of Moderating Variable of *Leadership and Management* and is the final effect on Dependent variable i.e. the Achievement of National Defence Objectives. Each group while agreeing to the fundamental contention of the researcher that creation of positive management synergies is the final outcome of BSC activities; have highlighted their personal convictions and possible enablers of creation of management synergies.

Hence in the light of above synthesis it is deduced that theoretical correlation developed between independent variables, Moderating and Intervening variables is supported through this qualitative analysis. And it also vindicated authors’ conviction of proposing Creation of *Management Synergies* as Intervening variable.

### Table 5.8 Summary Report of Cross Case Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group cases with Convergent Views</th>
<th>Main theme of Convergent Views</th>
<th>Researcher Deductions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creation of Positive Synergy</td>
<td>A1, A5, B3, C2 and C5</td>
<td>Higher motivation level leads to creation of Synergetic Force</td>
<td>***Supportive</td>
</tr>
<tr>
<td></td>
<td>A2, A7, B2, C2 and C4</td>
<td>Management Synergies are created if required resources are synchronized well and are made available at the right time and space</td>
<td>Supportive</td>
</tr>
<tr>
<td></td>
<td>A3, A6, A10, B1, and B5</td>
<td>Good reputation of DFs both at National and International level gives more motivation to personnel to perform well thereby creating mutual synergies.</td>
<td>Supportive</td>
</tr>
<tr>
<td></td>
<td>A4, A8, A10, B4 and C3</td>
<td>Creation of Motivation and positive synergies have a proportional relationship with the leadership and Management qualities</td>
<td>Supportive</td>
</tr>
</tbody>
</table>

* Defense Service, ** Views of the group are divergent from subject,  
*** Views are supportive to the subject

### 5.7 Overall Summary of Cross Case Analysis

Findings of the cross case analysis have been synthesized above through combination of emergent qualitative reasoning symbols of interview cases. The in-depth interview cases have supported theoretical reasoning and in certain cases have discovered new supportive evidence. Synthesis discussion in respect of each variable were tabulated separately.
Although all interview cases have supported the importance of Resources as variable having an influence on the dependent variable, but they have shown preferences group wise. It is therefore, deduced that theoretical correlation developed between dependent variable and Resources as independent variable is confirmed.

Influence of Enabling Processes as Independent variable on the dependent variable was also confirmed in above cross case analysis; though certain cases have shown preferences group wise. This helped in getting clarity about certain other classes of enabling processes. However, the theoretical correlation developed between dependent variable and Enabling Processes as independent variable is confirmed. Importance of Building for Future as variable having an influence on the dependent variable was also positively established during the cross case analysis of interview cases but each group stressed various facets of the same fundamental requirement.

Importance of Leadership and Management on the other hand as moderating variable having an influence on the operation of all Independent Variables was also established beyond doubt, but some of the interview groups’ cases have stressed various aspects of leadership and Management roles. And have been very insightful for the researcher. Hence theoretical correlation developed between independent variables and Leadership and Management as moderating variable was very well supported during the qualitative analysis.

Very interesting and insightful discussion took place with the interview cases in respect of Creation of Management Synergies as an Intervening variable, which is temporal in nature and evolves as result of the actions of Independent variables under the influence of Moderating Variable of Leadership and Management and is the final effect on Dependent variable i.e. the Achievement of National Defence Objectives. Each group while agreeing to the fundamental contention of the researcher that creation of positive management synergies is the final outcome of BSC activities, highlighted their personal convictions and possible enablers of creation of management synergies. However, Management Synergies as Intervening variable was also an addition to the knowledge of interview cases.

In the light of above supportive arguments of interview cases it is deduced that Achievement of National Defence Objectives through the actions of Independent, Moderating and Intervening variables as discussed during the cross case analysis and the synthesis of cross cases supports the theoretical ratifications of conceptual framework which was established after thorough literature research. In the next chapter same needs to be confirmed using quantitative analysis. This methodology of mix methods shall serve as triangulation by integrating qualitative as well as quantitative findings (Amaratunga and Baldry, 2001) in order to find the support for the desired research expectations.
Chapter 6

Data Analysis and Results

6. Operationalizing the Conceptual Framework

The in-depth literature review led the researcher to chalk out Conceptual Framework. Further 7 hypotheses were formulated to theorize the research propositions. The initial support for the said hypothesis was mustered/deduced through qualitative analysis in the preceding chapter using cross-case analysis of the interview cases. Same shall be further verified employing qualitative analysis in this chapter. To test these hypotheses on the qualitative basis, data were collected through a research instrument i.e. questionnaire prepared on (Likert scale). Research instrument consisted of seven constructs representing four independent, one Moderating, one Intervening and one Dependent variable. Each construct consisted of three to five items.

For this study Probability sampling has been used. It is based on systematic random sampling with stratification of sample on the basis of the levels of officers. As in this study, the population is properly listed as Army, Navy and Air Force of Pakistan therefore, random sampling techniques to draw sample was applied with good degree of confidence and accuracy, which allows the results to be generalized for all the three services of Pakistan.

As in this study the research population is well listed, the random order sample selection technique has been used to draw sample from the target strata for quantitative primary data collection, however, as a rule of thumb the minimum size of any such sample depends upon the number of independent and dependent variables and the formula for the same is \( \text{Number of Variable } \times 30 = \text{Sample Size} \), which is the minimum sample size requirement for analysis on SPSS. The sample size for data to be analyzed using SPSS was drawn keeping in mind the 95% of accuracy level Ranjit Singh (unknown, p. 182). Using online computer based sample calculator by Raosoft Inc, with confidence interval of 5, confidence level of 95%; comes out to be 304 and for confidence level 99% it comes out to be 456.

The sample size for respective force on prorate basis is as follows:

- a. Army \( 62\% \times 304 \) = 189
- b. Navy \( 20.7\% \times 304 \) = 63
- c. Air Force \( 17.2\% \times 304 \) = 52
Though significant amount of literature is available on the subject, however, there are few organizations within Pakistan which use BSC as management tool. Resultantly an independent survey had to be conducted by the researcher. This was bit challenging as the survey elements were generally committed officers of the armed forces; data collection and conducting interviews was therefore, a demanding activity. The nature of this survey is cross sectional; consequently findings of this study can only be generalized for Pakistan Defense Services. The questionnaire was designed on likert scale in a manner that allowed clear understanding by the survey elements so that their responses are measured in the best possible way. To assure confidentiality of the respondents there personnel data including names were not made part of the questionnaire. The medium for collecting qualitative data was the face to face interviews conducted in the most congenial manner again soliciting time from the senior military officers given their high level of commitment was the challenging part of qualitative data collection. In certain cases interviews could not be completed due to immediate exigencies of the officers arising in the course of performance of their routine duties and repeated visits had to be conducted. Data collection therefore, turned out to be time consuming and costly activity. Administering questionnaire and conducting interviews of the officers or personnel engaged at the operational level of military command was the most challenging part of the study. Difficulty in conducting survey was also faced due to the fact that BSC is a relatively new subject even for well qualified officers. The natural affinity of the senior officers with existing traditional military management system was also a major barrier in soliciting their unbiased response. The details of above population and data collection/survey techniques have been discussed in detail in chapter 4 (Research Methodology).

6.1 Reliability/Validity of Measurement Instrument

The reliability of measurement instrument i.e. the questionnaire was checked using pilot survey and measuring the value of Chronbach’s Alpha before serving the same to the entire survey size which comes out to be 0.835 and falls in the very good criteria, Hagen (1986) which shows that there is very good inter item consistency among all the seven main constructs of the questionnaire. Construct vise reliability test have been attached as Appendix-V. Items (number of questions) were reduced form constructs showing unsatisfactory Alpha value. Pilot survey was re run and after achieving satisfactory Chronbach values of all the constructs, questionnaire was resubmitted to \( N = 300 \) for collection of data, which was an arduous and highly time consuming job.
6.2 Survey Response

The survey response was quite encouraging, though the required survey size was 300; the questionnaire was served to 330 officers out of which 315 responded 15 responses were discarded due non completion of the questionnaires served. An excel data sheet was prepared by feeding in all the 300 responses, which was then imported into computer based SPSS software for further result generation and data analysis.

The above computer generated Box Plot shows the overall response of all the respondents in terms of each variable. Generally all the responses fall in the region of Agreed and strongly agreed (of likert scale measure.) The distribution of responses in case of; Strategic National Objective, Purpose of National Defense Services and Availability of Resources and Creation of Positive Synergy is normally distributed except for Availability of resources and Leadership/Management which are little Left Skewed but in the positive region of scale. The response in terms of Enabling Processes is right skewed and mostly falls in the positive region of scale. It is generally concluded that response of the respondents about all the variables falls mostly in the region of highly agreeableness’, which helps in developing general perception that most of the respondent have responded positively and all four variables qualify certain
minimum level of acceptance at the initial stage Shapiro-wilk test of Normality has also been included in addition to the box Plots as Appendix VI.

6.3 Inter Variable Correlation

The tables below shows inter variable mutual correlation: which is positive and significant. There is strong correlation between Strategic Objective and Developing for Future i.e. 88 % there is also generally positive correlation among all the variables, though the intensity of this correlation varies but fact remains that correlation is significant. It therefore, can be deduced with a good degree of confidence that mutual positive relationship does exist between all the variables. This gives certain level of credence to the formulation of conceptual framework. This however, may not give the researcher enough confidence to assume existence of causation among variables, which may be confirmed at latter stage after testing of hypothesis through regression modeling.

Table- 6.2 Inter Variable Correlation

<table>
<thead>
<tr>
<th>Stgic Aims &amp; Objectives</th>
<th>Purpose</th>
<th>Resources</th>
<th>Enabling Processes</th>
<th>Developing for Future</th>
<th>Leadership /Management</th>
<th>Creation of Positive Synergy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stgic Aims &amp; Objectives</td>
<td>1</td>
<td>.247</td>
<td>.322</td>
<td>.713</td>
<td>.88</td>
<td>.322</td>
</tr>
<tr>
<td>Purpose</td>
<td>.247</td>
<td>1</td>
<td>.342</td>
<td>.414</td>
<td>.247</td>
<td>.344</td>
</tr>
<tr>
<td>Resources</td>
<td>.322</td>
<td>.342</td>
<td>1</td>
<td>.482</td>
<td>.322</td>
<td>.87</td>
</tr>
<tr>
<td>Enabling Processes</td>
<td>.713</td>
<td>.414</td>
<td>.482</td>
<td>1</td>
<td>.86</td>
<td>.482</td>
</tr>
<tr>
<td>Developing for Future</td>
<td>.88</td>
<td>.247</td>
<td>.322</td>
<td>.86</td>
<td>1</td>
<td>.322</td>
</tr>
<tr>
<td>Leadership /Management</td>
<td>.322</td>
<td>.344</td>
<td>.87</td>
<td>.482</td>
<td>.322</td>
<td>1</td>
</tr>
<tr>
<td>Creation of Positive Synergy</td>
<td>.247</td>
<td>.89</td>
<td>.342</td>
<td>.414</td>
<td>.247</td>
<td>.342</td>
</tr>
</tbody>
</table>
6.4 Hypothesis Testing

In order to prove the relationship among Independent, Dependent, Moderating as well as Intervening variables through statistical analysis, other than proving mutual correlation, Regression testing was carried out using computer based SPSS software. The basic regression model can be symbolized as follows:

\[ Y = mX + b \]

Where ‘Y’ is the dependent variable ‘m’ is the slope ‘X’ is the independent variable and ‘b’ is the constant.

The above mentioned basic statistical relationship widely helped in determining whether a particular variable is determinant of the other or not. To prove one on one relationship among variables, Simple regression technique was used. Whereas, in order to prove that all independent variables are mutually also the determinants of dependent variable, multiple regression method was used. The analysis and the results have been compiled in the ensuing paragraphs along with the relevant discussion and deductions.

**Hypothesis-1: Greater is the pursuit of National purpose, the greater is the achievement of strategic Objectives.**

The simple regression test was conducted to find whether the pursuit of national purpose is a predictor of Achievement of Strategic Objective or not. The response statistics in terms of Strategic Objectives and purpose of National Defense Services are shown in Table 6.3.

**Table-6.3 Descriptive Statistics**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic National Defence</td>
<td>4.1458</td>
<td>.47401</td>
<td>300</td>
</tr>
<tr>
<td>Objectives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purpose of National Defence</td>
<td>4.1650</td>
<td>.42234</td>
<td>300</td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Whereas, table 6.4 shows that there is a positive correlation between both the variables, which indicates a strong positive relationship; meaning thereby greater is the pursuit for National Purpose greater is the achievement of National Objectives.
Table 6.4 Correlations

Correlations Table 6.4

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>Strategic National Defence Objectives</th>
<th>Purpose of National Defence Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic National Defence Objectives</td>
<td>1.000</td>
<td>.247</td>
</tr>
<tr>
<td>Purpose of National Defence Services</td>
<td>.247</td>
<td>1.000</td>
</tr>
</tbody>
</table>

The table- 6.5 Shows the value of multiple R square = .247 and as there is only one predictor same is equal to the correlation. It shows that Pursuit of National Purpose explains 24.7 % variance of the dependent variable i.e. Achievement of National Objectives.

Table- 6.5 Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.247⁺</td>
<td>.061</td>
<td>.058</td>
<td>.46011</td>
</tr>
</tbody>
</table>

The table-6.6 below represents the ANOVA output which shows that 4.09 % of variance is predictable by the regression equation operative in this relationship whereas, 63% of the variance of dependent variable is not predictable.

Table 6.6 Anova

Table-6. 6 ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>4.097</td>
<td>1</td>
<td>4.097</td>
<td>19.352</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>63.086</td>
<td>298</td>
<td>.212</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>67.182</td>
<td>299</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Purpose of National Defense Services
b. Dependent Variable: Strategic National Defence Objectives

The table-6.7 represents the coefficients of regression equation i.e. b1 and b0 being the slope and Y-Intercept, which helps in constructing the regression equation, which may be represented as follows:

\[
Y = b_0 + b_1 X
\]
Predicted Achievement of Strategic Defence Objectives = 2.99 + 0.277 (Pursuit of National Purpose)

As both the Coefficients b0 and b1 are significantly different from zero, this shows that the pursuit of National Purpose and the Achievement of National Objectives have a linear positive relationship. Hence H-1 is confirmed and accepted.

**Table 6.7 Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Un-standardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.991</td>
<td>.264</td>
<td>11.342</td>
<td>.000</td>
</tr>
<tr>
<td>Purpose of National Defense</td>
<td>.277</td>
<td>.063</td>
<td>.247</td>
<td>4.399</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Strategic National Defence Objectives

**Hypothesis-2: Higher is the availability of resources, the greater is the achievement of strategic defense objectives.**

The simple regression test was conducted to find whether the Availability of Resources is a predictor of Achievement of Strategic Objective or not. The response statistics in terms of Strategic Objectives and purpose of National Defense Services are shown in table-6.8.

**Table 6.8 Descriptive Statistics**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic National Defence Objectives</td>
<td>4.1458</td>
<td>.47401</td>
<td>300</td>
</tr>
<tr>
<td>Availability of Resources</td>
<td>4.188</td>
<td>.5082</td>
<td>300</td>
</tr>
</tbody>
</table>

Whereas, table -6.9 shows that there is a positive correlation between both the variables, which indicates a positive relationship; meaning thereby greater is the Availability of Resources greater is the achievement of National Objectives.

**Table 6.9 Correlations**

<table>
<thead>
<tr>
<th></th>
<th>Strategic National Defence</th>
<th>Availability of Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objectives</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Pearson Correlation | Strategic National Defence Objectives | 1.000 | .322
| Availability of Resources | .322 | 1.000

The table- 6.10 Shows the value of multiple R square = .104 and as there is only one predictor same is equal to the correlation. It shows that Availability of Resources explains 32.2 % variance of the dependent variable i.e. Achievement of National Objectives.

**Table -6.10  Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.322</td>
<td>.104</td>
<td>.101</td>
<td>.44951</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Availability of Resources

The table-6.11 below represents the ANOVA output which shows that 6.9 % of variance is predictable by the regression equation operative in this relationship whereas, 60.215% of the variance of dependent variable is not predictable for which there may be other many reasons for example the National Morale and the National support to the defense forces.

**Table 6.11  Anova**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>6.968</td>
<td>1</td>
<td>6.968</td>
<td>34.483</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>60.215</td>
<td>298</td>
<td>.202</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>67.182</td>
<td>299</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Availability of Resources

b. Dependent Variable: Strategic National Defence Objectives

The table-6.12 represents coefficients of regression equation i.e. b1 and b0 being the slope and Y-Intercept, which helps in constructing the regression equation, which may be represented as follows:

**Regression Equation**

Predicted Achievement of Strategic Defence Objectives = 2.88 + 0.300 (Availability of Resources)

As both the Coefficients of Constant b0 and b1 are significantly different from zero, this shows that the Achievement of Strategic Objectives and the Availability of Resources have a linear positive relationship. Hence H-2 is confirmed and accepted.
Table 6.12 Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Un-standardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>2.888</td>
<td>.216</td>
<td>13.382</td>
<td>.000</td>
</tr>
<tr>
<td>Availability of Resources</td>
<td>.300</td>
<td>.051</td>
<td>.322</td>
<td>5.872</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Strategic National Defence Objectives

**Hypothesis-3: If the enabling processes are more efficient, the higher is the achievement of defense strategic objectives.**

The simple regression test was conducted to find whether the Enabling Processes is a predictor of Achievement of Strategic Objective or not. The response statistics in terms of Strategic Objectives and purpose of National Defense Services are shown in table-6.13.

Table 6.13 Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic National Defence Objectives</td>
<td>4.1458</td>
<td>.47401</td>
<td>300</td>
</tr>
<tr>
<td>Enabling Processes</td>
<td>4.1133</td>
<td>.45590</td>
<td>300</td>
</tr>
</tbody>
</table>

Whereas, table -6.14 shows that there is a positive correlation between both the variables, which indicates a strong positive relationship; meaning thereby greater is the focus on Enabling Processes greater is the achievement of National Objectives.

Table 6.14 Correlations

<table>
<thead>
<tr>
<th></th>
<th>Strategic National Defence Objectives</th>
<th>Enabling Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1.000</td>
<td>.412</td>
</tr>
</tbody>
</table>

The table- 6.15 Shows the value of multiple R square = .412 and as there is only one predictor same is equal to the correlation. It shows that Availability of Resources explains 17.1 % variance of the dependent variable i.e. Achievement of National Objectives.
Table 6.15  Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.4124</td>
<td>.170</td>
<td>.167</td>
<td>.43270</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Enabling Processes

The ANOVA output shows that 11.38% of variance is predictable by the regression equation operative in this relationship whereas, 55.79% of the variance of dependent variable is not predictable for which there may be other many reasons for example the National Morale and the National support to the defense forces. The table-6.16 represents coefficients of regression equation i.e. b1 and b0 being the slope and Y-Intercept, which helps in constructing the regression equation, which may be represented as follows:

Regression Equation

Predicted Achievement of Strategic Defence Objectives = 2.38 + 0.428 (Enabling Processes)

As both the Coefficients of Constant b0 and b1 are significantly different from zero, this shows that the focus on Enabling Processes and the Achievement of Strategic Objectives have a linear positive relationship. Hence H-3 is confirmed and accepted.

Table 6.16  Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Un-standardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>2.385</td>
</tr>
<tr>
<td></td>
<td>Enabling Processes</td>
<td>.428</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Strategic National Defence Objectives
b. Dependent Variable: Strategic National Defence Objectives

**Hypothesis-4:** If building for future is extensive, higher is the achievement of Defense Strategic Objectives.

The simple regression test was conducted to find whether the Building for Future is a predictor of Achievement of Strategic Objectives or not. The response statistics in terms of Strategic Objectives and Building for Future are shown in table-6.17.
Table 6.17  **Descriptive Statistics**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic National</td>
<td>4.1458</td>
<td>.47401</td>
<td>300</td>
</tr>
<tr>
<td>Defence Objectives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developing for Future</td>
<td>4.3850</td>
<td>.48569</td>
<td>300</td>
</tr>
</tbody>
</table>

Whereas, table -6.18 shows that there is a strong positive correlation between both the variables, which indicates a strong positive relationship; meaning thereby greater is the focus on Building for Future greater is the achievement of National Objectives.

Table 6.18  **Correlations**

<table>
<thead>
<tr>
<th></th>
<th>Strategic National Defence</th>
<th>Developing for Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1.000</td>
<td>.062</td>
</tr>
<tr>
<td>Strategic National</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defence Objectives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developing for Future</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table- 6.19 Shows the value of multiple R square = .004 and as there is only one predictor same is equal to the correlation. It shows that Availability or Resources explains 62 % variance of the dependent Variable i.e. Achievement of National Objectives which is quite high as compared to the other relationships.

Table – 6.19  **Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.062*</td>
<td>.004</td>
<td>.001</td>
<td>.47389</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Developing for Future

The table-6.20 below represents the ANOVA output which shows that 2.6 % of variance is predictable by the regression equation operative in this relationship whereas, 66.92 % of the variance of dependent variable is not predictable for which there may be other many reasons.
The table-6.21 represents coefficients of regression equation i.e. b1 and b0 being the slope and Y-Intercept, which helps in constructing the regression equation, which may be represented as follows:

**Regression Equation**

\[
\text{Predicted Achievement of Strategic Defence Objectives} = 3.88 + 0.061 \times \text{Developing for Future}
\]

As both the Coefficients of Constant b0 and b1 are significantly different from zero, this shows that Focus on Developing for Future and the Availability of Resources have a linear positive relationship. Hence H-4 is confirmed and accepted.

**Table 6.20 Anova**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.260</td>
<td>1</td>
<td>.260</td>
<td>1.157</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>66.922</td>
<td>298</td>
<td>.225</td>
<td>1.157</td>
<td>.000</td>
</tr>
<tr>
<td>Total</td>
<td>67.182</td>
<td>299</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Developing for Future  
b. Dependent Variable: Strategic National Defence Objectives

**Table 6.21 Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Un-standardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>3.880</td>
<td>.249</td>
<td>15.585</td>
<td>.000</td>
</tr>
<tr>
<td>Developing for Future</td>
<td>.061</td>
<td>.056</td>
<td>.062</td>
<td>1.076</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Strategic National Defence Objectives

**Hypothesis-5**  
*Leadership and management qualities are predictor of achievement of National Defence Objectives.*

The simple regression test was conducted to find whether the Leadership/Management quality is a predictor of Achievement of Strategic Objective or not. The response statistics in terms of Strategic Objectives and purpose of National Defense Services are shown in table-6.22.

**Table 6.22 Descriptive Statistics**

<table>
<thead>
<tr>
<th>Model</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic National Defence</td>
<td>4.1458</td>
<td>.47401</td>
<td>300</td>
</tr>
<tr>
<td>Objectives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership/Management</td>
<td>4.188</td>
<td>.5082</td>
<td>300</td>
</tr>
</tbody>
</table>
Whereas, table -6.23 shows that there is a positive correlation between both the variables, which indicates a strong positive relationship; meaning thereby better are the Leadership/Management qualities greater is the achievement of National Defence Objectives.

### Table 6.23 Correlations

<table>
<thead>
<tr>
<th></th>
<th>Strategic National Defence Objectives</th>
<th>Leadership/Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1.000</td>
<td>.322</td>
</tr>
<tr>
<td>Strategic National Defence Objectives</td>
<td>1.000</td>
<td>.322</td>
</tr>
<tr>
<td>Leadership/Management</td>
<td>.322</td>
<td>1.000</td>
</tr>
</tbody>
</table>

The table- 6.24 Shows the value of multiple R square = .104 and as there is only one predictor same is equal to the correlation. It shows that Leadership/Management explains 32.2 % variance of the dependent variable i.e. Achievement of National Objectives.

### Table -6.24 Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.322</td>
<td>.104</td>
<td>.101</td>
<td>.44951</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Availability of Resources

The table-6.25 below represents the ANOVA output which shows that 6.9 % of variance is predictable by the regression equation operative in this relationship whereas, 60.215% of the variance of dependent variable is not predictable for which there may be other many reasons for example the National Moral and the National support to the defense forces.

### Table 6.25 Anova

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>6.968</td>
<td>1</td>
<td>6.968</td>
<td>34.483</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>60.215</td>
<td>298</td>
<td>.202</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>67.182</td>
<td>299</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Leadership and Management

b. Dependent Variable: Strategic National Defence Objectives

The table- 6.26 represents coefficients of regression equation i.e. b1 and b0 being the slope and Y-Intercept, which helps in constructing the regression equation, which may be represented as follows:
Regression Equation

Predicted Achievement of Strategic Objectives = 2.88 + 0.300 (Leadership/Management)

As both the Coefficients of Constant b0 and b1 are significantly different from zero, this shows that the Achievement of Strategic Objectives and the Availability of Resources have a linear positive relationship. Hence H-5 is confirmed and accepted.

**Table 6.26 Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Un-standardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>2.888</td>
<td>.216</td>
</tr>
<tr>
<td>Leadership/Management</td>
<td>.300</td>
<td>.051</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Strategic National Defence Objectives

**Hypothesis-6 through the implementation of Balanced Score Card, Positive management synergy is created which helps in achieving National Defiance Aims and Objectives**

The simple regression test was conducted to find whether the Creation of Synergy is a predictor of Achievement of Strategic Objective or not. The response statistics in terms of Strategic Objectives and creation of Synergy are shown in table-6.27.

**Table 6.27 Descriptive Statistics**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic National Defence Objectives</td>
<td>4.1458</td>
<td>.47401</td>
<td>300</td>
</tr>
<tr>
<td>Synergy</td>
<td>4.1650</td>
<td>.42234</td>
<td>300</td>
</tr>
</tbody>
</table>

Whereas, Table- 6.28 shows that there is a positive correlation between both the variables, which indicates a positive relationship; meaning thereby Higher is the creation of Synergy greater is the achievement of National Defence Objectives.
Table 6.28  Correlations

<table>
<thead>
<tr>
<th></th>
<th>Strategic National Defence Objectives</th>
<th>Synergy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>Strategic National Defence</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Positive Synergy</td>
<td>.247</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>Strategic National Defence</td>
<td>.</td>
</tr>
<tr>
<td></td>
<td>Positive Synergy</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>Strategic National Defence</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>Positive Synergy</td>
<td>300</td>
</tr>
</tbody>
</table>

The Table- 6.29 Shows the value of multiple R square = .061 and as there is only one predictor same is equal to the correlation. It shows that Creation of Synergy explains 24.7 % variance of the dependent variable i.e. Achievement of National Defence Objectives.

Table 6.29  Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.247a</td>
<td>.061</td>
<td>.058</td>
<td>.46011</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Synergy

The table-6.30 below represents the ANOVA output which shows that 4% of variance is predictable by the regression equation operative in this relationship whereas, 63.08% of the variance of dependent variable is not predictable for which there may be other many reasons for example the National Morale and the National support to the defense forces.

Table 6.30  ANOVAs

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>4.097</td>
<td>1</td>
<td>4.097</td>
<td>19.352</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>63.086</td>
<td>298</td>
<td>.212</td>
<td></td>
</tr>
</tbody>
</table>
The table-6.31 represents coefficients of regression equation i.e. b1 and b0 being the slope and Y-Intercept, which helps in constructing the regression equation, which may be represented as follows:

**Regression Equation**

Predicted Achievement of Strategic Defence Objectives = 2.99 + 0.277 (Creation of Synergy)

As both the Coefficients of Constant b0 and b1 are significantly different from zero, this shows that the Achievement of Strategic Objectives and the Availability of Resources have a linear positive relationship. Hence H-6 is confirmed and accepted.

**Table 6.31 Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Un-standardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>2.991</td>
<td>.264</td>
<td>11.342</td>
</tr>
<tr>
<td></td>
<td>Positive Synergy</td>
<td>.277</td>
<td>.063</td>
<td>.247</td>
</tr>
</tbody>
</table>

Hypothesis-7: *The purpose, resources, enabling processes, building for future, Leadership/Management skills and creation of Positive Synergy have positive correlation with achievement of defense strategic aims.*

The multiple regression test was conducted to find whether *The purpose, resources, enabling processes, building for future, Leadership/Management skills and creation of Positive Synergy* are predictor of *Achievement of defense strategic aims* or not. The response statistics in terms of *Achievement of Strategic defense Objective* and four independent variables in table-6.32 which shows that there is positive correlation among all these variables.

**Table 6.32 Correlations**

<table>
<thead>
<tr>
<th>Strategic National Defence Objectives</th>
<th>Availability of Resources</th>
<th>Enabling Processes</th>
<th>Developing for Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1.000</td>
<td>.322</td>
<td>.412</td>
</tr>
</tbody>
</table>
The table- 6.33 Shows the value of multiple R square = .258 It shows that all the four independent variables collectively explain 50.8% variance of the dependent variable i.e. Achievement of National Objectives.

Table 6.33 Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.508*</td>
<td>.258</td>
<td>.248</td>
<td>.41108</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Developing for Future, Availability of Resources, Enabling Processes, Purpose of National Defense Services

The table-6.34 below represents the ANOVA output which shows that 17.33% of variance is predictable by the multiple regression equation operative in this relationship whereas, 49.85% of the variance of dependent variable is not predictable for which there may be other reasons.

Table 6.34 ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>17.331</td>
<td>4</td>
<td>4.333</td>
<td>25.640</td>
<td>.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>49.851</td>
<td>295</td>
<td>.169</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>67.182</td>
<td>299</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Developing for Future, Availability of Resources, Enabling Processes, Purpose of National Defense Services
b. Dependent Variable: Strategic National Defence Objectives

The table-6.35 represents coefficients of Multiple regression equation i.e. b1 and b0 being the slope and Y- Intercept, which helps in constructing the regression equation, which may be represented as follows:

\[
\text{Multiple Regression Equation} \\
\text{Predicted Achievement of strategic Objectives} = 1.44 + 0.308* \text{ (Pursuit of Purpose)} + .180 \text{ (Availability of Resources)} + 0.352* \text{ (Enabling Processes)} + (-.178) \text{ (Developing for Future)}
\]

As both the Coefficients of Constant b0 and b1 are significantly different from zero, this shows that The purpose, resources, enabling processes and building for future collectively are the predictor of variance
of the dependent variable i.e. the Achievement of National Defense Objectives and all these variables have a linear positive relationship. Hence H-7 is confirmed and accepted.

Table 6.35 Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Un-standardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td></td>
<td>4.194</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Purpose of National Defense</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Services</td>
<td>.308</td>
<td>.071</td>
<td>4.361</td>
</tr>
<tr>
<td></td>
<td>Availability of Resources</td>
<td>.180</td>
<td>.052</td>
<td>3.453</td>
</tr>
<tr>
<td></td>
<td>Enabling Processes</td>
<td>.352</td>
<td>.061</td>
<td>5.786</td>
</tr>
<tr>
<td></td>
<td>Developing for Future</td>
<td>.178</td>
<td>.066</td>
<td>2.718</td>
</tr>
</tbody>
</table>

Table 6.36 below summarizes all the findings of the hypothesis:

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Statement</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Greater is the pursuit of National purpose, the greater is the achievement of Strategic Defence Objectives</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H2</td>
<td>Higher is the availability of resources, the greater is the achievement of Strategic Defence Objectives</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H3</td>
<td>If the enabling processes are more efficient, the higher is the achievement of Strategic Defence Objectives</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H4</td>
<td>If building for future is extensive, then higher is the achievement of Strategic Defence Objectives</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H5</td>
<td>Leadership and management qualities are predictor of achievement of National Defiance Objectives</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H6</td>
<td>Through the implementation of Balanced Score Card, Positive management synergy is created which helps in achieving National Defence Objectives</td>
<td>Confirmed</td>
</tr>
</tbody>
</table>
The purpose, resources, enabling processes, building for future, Leadership/Management skills and creation of Positive Synergy have positive correlation with achievement of Strategic Defence Objectives. Confirmed through multiple regression test. Shows that all independent variables collectively help in the achievement of National defence objectives.

6.5 Summary

To answer the basic research questions and achieve research objectives, after an extensive literature research a conceptual model was developed, Based on sound reasoning embedded in Resource Based Theory. In the light of basic conceptual model, various hypotheses were formulated to confirm the validity of model. The initial support for the said hypothesis was mustered/deduced through qualitative analysis in the preceding chapter using cross case analysis of the interview cases. Same has been further verified employing qualitative analysis in this chapter. This methodology of mix methods has served as triangulation by integrating qualitative as well as quantitative findings (Amaratunga and Baldry, 2001) in order to find the support for the desired research expectations. To employ the quantitative testing of the model, a cross-sectional data was gathered from target population which consisted of officers of the rank of Colonel and above in all the three armed services of Pakistan. I.e. Army, Navy and Air force. The fitness of conceptual model and confirmation of hypothesis was carried out employing simple and multiple regression modeling using computer based SPSS software. The quantitative analysis has supported the deductions of the qualitative analysis and it has emerged that, Purpose of Defense Forces, Resources, Enabling Processes and Building for Future are the predictors of Achievement of National Defence Objectives, and are proposed as the basic management perspectives of BSC on the basis of which the scorecard for defense services of Pakistan has to be developed. The quantitative testing also brought to light two other important predictors of Dependent Variable (Achievement of National Defence Objectives), i.e. Leadership and Management as Moderating Variable, whereas, Creation of Positive Synergy as Intervening variable which is temporal in nature and is a function of time .i.e. synergy takes birth when the four main predictors (Independent Variables) are in action. On the other hand leadership and management qualities of those involved in the various roles i.e. as change sponsor, change agent or any other person e.g. the head of certain departments during development of BSC or its implementation have a contingent effect on the overall performance of BSC in the organization and tends to moderate the performance of BSC. Such an effect being intangible in nature is generally hidden but the fact remains good or bad leadership qualities will certainly have an effect on the performance of BSC.
Chapter 7

Summary and Implications

7. Introduction

This thesis is an empirical investigation under taken with an aim to get deep insight about the management practices of defense forces globally in general while learning through the historical backgrounds but in particular the main focus of the research is to have focused in depth knowledge about the collective vision, mission and strategic objectives of Pakistan Defense services through an in depth literature review to arrive at the final decision of proposing key management perspectives for BSC of Pakistan Defence Forces, which are to form basis for the implementation of BSC in Pakistan Defense services as management tool to align its strategic management..

Study focused on finding answers to the following key questions:

- What are the collective vision, mission and strategic aims/objective set for the Pakistan defense services?
- Which are the core functions that are effective in achieving are influencing the Achievement of Strategic Aims and Objectives? So that same could be adopted as the perspectives of Balanced Scorecard for Pakistan defense services?
- What are the common grounds of corporate and defence management practices towards the achievement of organizational strategy
- Is there any possibility of adopting any of the corporate management perspectives for defense services’ BSC as well?
- Finally can BSC be a solution towards the achievement of strategy by Pakistan Defense Services as well? If yes what perspectives should be adopted by defense forces to formally adopt BSC as new management tool?

To find answers in the course of empirical research to the above questions following study objectives were set:
• Determining the common grounds of importing BSC perspectives from corporate to defence services of Pakistan.

• Exploring relevant BSC perspectives for Pakistan Defence Services.

• Proposing a suitable BSC model for achieving National Defence Strategic Aims and Objectives based on relevant BSC perspectives.

• Testing the proposed BSC Model for Pakistan Defense Services.

• Verifying the results through triangulation by using quantitative and qualitative data.

• Identifying the possible limitations/Implications to be encountered by Pakistan Defense Services management, while adopting the proposed model of BSC perspectives.

Chapter I was dedicated to address above research questions and objectives. A comprehensive review of the potential theories was undertaken, and the Resource Based theory was selected as the fundamental under lying theory on which this thesis was developed. A comprehensive literature review was undertaken to find possible predictors having bearing on the Achievement of National Defence Objectives being the ultimate achievement of National Defense Forces, which was taken as dependent variable, and representing their relationship in the form of conceptual framework.

Chapter 2 contains extensive literature review where genesis of BSC and its prevailing application especially in other defense services of the world was studied in detail. Its application in corporate world and possible relationship with the working of Public Service, Government and especially defence services was deliberated. Possible perspectives of BSC for defense service were located and their mutual relationship and collective effect on the dependent variable was studied, which led to the formulation of conceptual framework and hypothesis. Research methodology was deliberated in Chapter 3 along with the study of research population and research sample was drawn after the careful study of target population for which the criteria set was; the officers of the rank of Colonel and above from all the three defense service having done staff course, Armed Forces War Course or course abroad. At the end a questionnaire was established in the light of conceptual frame work to collect quantitative data on the likert scale as it helps in capturing the intangible perceptions as well (Appendix 1). The entire research methodology has been elaborated in Chapter 4.

Chapter 5 consisted of qualitative data collection and analysis. Qualitative data was gathered from 20 interview cases using interview protocol (Appendix II). Analysis of the interview cases was carried out
using cross case analysis which was further confirmed through empirical predictions of quantitative data analysis in chapter 6. 

Chapter 6 consisted of qualitative data analysis and result generation/analysis using SPSS computer based software, the influence of independent variables was confirmed on the dependent variable through correlation and regression modeling in respect of each hypothesis. The findings and confirmation of hypothesis through quantitative data also complements and supports the supportive orientation of each independent variable on the dependent variable established during the qualitative analysis. This methodology of mix methods has served as triangulation by integrating qualitative as well as quantitative findings (Amaratunga and Baldry, 2001) in order to find the support for the desired research expectations. Numbers of useful statistical results have been appended with this report as Appendix III.

7.2 Implications of the Research

Findings of this study reported in chapter 5 and 6 as summarized in the previous section have some theoretical and managerial implications:

7.2.1 Implications for the Literature

Theoretical development around the globe for and against the utility of BSC as a management tool have given impetuous to the need for finding theoretical validation of BSC concept of management both for public sector as well as Defence Forces. The founders of the BSC concept i.e. (Kaplan and Norton, 1996) had themselves cautioned that BSC is a concept rather than a tool and should not be adopted as a straight jacket. Especially the management perspectives, which are to serve as key pillars on which the entire development of BSC concept is to be based, should be adopted after due deliberation. The perspectives should be the representative of the core concepts/values of any organization aspiring to adopt BSC method of management. In view of this background, this researcher has undertaken a theoretical exercise imbedded in the resource based theory to explore core management perspectives for the development of BSC for Pakistan Defence Forces. After an exploratory undertaking a new theoretical model has been tested. The results show that purpose of Defence Force, Resources, Enabling Process and the Requirement to build for future are the important contribution to the literature. The results further imply that all the four recognized key perspectives set a direction of use of these perspectives in a new research setting. All the four perspectives have emerged as predictor of “Achievement of National Defiance Objectives” with a varying degree. It may give an additional insight and direction to the already existing body of knowledge on the subject rooted in the resource based theory. All the conceptual arguments for
the assumed theoretical arguments for these four management perspectives have been empirically validated through this research, which should be of interest to the academic practitioners.

Assimilation / understanding of *Purpose of Existence* of the National Armed Forces especially by all the cadres and ranks of a Defence Force, has registered its unique theoretical importance, which being intangible in nature generally remains un-noticed. The research has also established its clear viability as a predictor of achievement of National Defence Objectives. On the other hand, “Resources” both human and material being tangible in nature are though commonly considered an important management perspective, however, this research has empirically re-established its viability in the literature as a strong predictor of achievement of National Defence Objectives.

The perspective of *Enabling Processes* has both tangible and intangible nature. Especially the organizational processes associated with the material resources e.g. the means of mobilization of Forces, Weapons, Ammunition and Rationing etc have been re-established in the theory as predictor, however, most importantly the intangible processes e.g. training and building of morale have also been re-established well in the theory through this research and should be of interest to the military literature and academia.

The perspective of “*Building for Future*” takes its birth from the fact that we are living in a dynamic world with changing technologies and improved scientific knowledge, nations try to surpass their adversaries in protecting themselves by building / acquiring improved arms and equipment while in its wake create new challenges for the would be enemy. Building for future in the light of such threat perceptions is an absolute and vital theoretical addition inviting interest especially of the military academia. Its acceptance as vital predictor of National Defence Objectives through empirical testing during this research, gives it enough credence to be accepted as a worthwhile addition to existing theory and literature.

As in the quantitative domain, the theoretical assertions have also been synthesized in the qualitative perspective through cross case analysis, which complements the findings of quantitative analysis, which are very insightful. In case of most of the respondents, the hypothetical theoretical assertions tested empirically, stood vindicated, though a small amount of qualitative evidence in certain cases remained inconclusive, which could be attributed to the perceptions of the key respondents, which are subjective in nature and may not be necessarily aligned with the design of this research. However, in spite of this human barrier, most of the elucidations of the respondents are in line with the quantitative and empirical verifications.
7.2.2 Managerial Implications

The managerial implications emerged from both quantitative and qualitative findings in terms of what factors are significant firstly for the selection of proposed perspectives and secondly which factors are influential during the operation of these perspectives. Where this study has brought out that which factors are the predictors of dependent variable i.e. the Achievement of National Defence Objectives and have been recommended as perspectives, at the same time has brought out tow important under lying predictors which become operative at the time of actual operation of BSC perspectives. These are the Leaderships/Management qualities and Creation of Management Synergy which mediate the functioning of core management perspectives. Both of them have implications for the management, because just to know predictive qualities of managerial perspectives is not enough, because while producing Scorecard only the perspective will be kept in mind, while hidden moderating and Intervening effects come into play at the time of operation of the BSC perspectives and are as such temporal in nature, whereas, moderating variable i.e. Leadership and Management has its application even during the preparation of Scorecards which implies that management at no stage, i.e. at the building as well operation stage of BSC can remain oblivious of Moderating or the Intervening effects. As of Moderating variable management needs to be conscious at all times that output of any activity shall be as good or as bad as the leadership and management qualities of the top or the middle managers or the leaders are. Whereas, in case of intervening variable, management implications are how to direct the created management synergy for the greater good when personnel are riding at the higher motivational level?

The surgical review of the literature and quantitative as well as qualitative analysis has also revealed a number of management challenges, as implementation of BSC is a greater shift from the traditional style of management and puts demands on the management.

The research places many implied responsibilities and obligation on the management. It is but natural any successful change has to start right from the strategic level, as until the support and conviction of top management is not there, certainly there shall be no smooth commitment of resources both human and material for the implementation of such change which has emerged as an important management perspective and predictor of achievement of strategic defence objectives, therefore, research makes it obligatory for the top management to commit appropriate resources for the undertaking of BSC in its true essence. This is where the research makes it obligatory for the management to disassociate itself from the mental and spiritual association with the traditional management system and commit itself firstly to the role of change sponsor and secondly the role of change agent who is to actually educate and motivate
the top leadership to embrace new change i.e. for the implementation or adoption of researched BSC perspectives.

The “Purpose” of existence of armed forces has emerged as one of the key management perspective; however, its intangible nature makes it obligatory for the management that its essence and true spirit is fully imbibed by all ranks. Similarly perspective of “Internal Processes” has emerged with dual nature i.e. it is tangible in terms of training or procurement processes, however, cultivation / maintenance of morale, which is an important by product of training and is an important source / predictor of positive synergy, implies that management needs to be spiritually and intimately involved in the training of personnel to have the first hand feel of the troops morale and to be able to make timely interventions where so desired. As the individual motivation is very subjective in nature, it implies that leaders be involved with their men thoroughly to know them well.

“Building for Future” has emerged one of the strong predictor of “Achievement of National Defence Objectives” both in the quantitative and qualitative settings. Especially the qualitative findings have brought out number of implications for the management and most of the respondents had converging views in terms of managerial implications which may be summarized as follows:

“With new technologies and improved knowledge belligerents try to secure themselves by building/ acquiring new and more potent weapons and equipment, which implies that management cannot remain oblivious of new developments in the field of science and technology. The changed / improved enemy weaponry implies for the management that own tactics and doctrines should be changed and modified accordingly, without lowering guard. Such improvements and timely modifications / interventions should become an organic and dynamic function of management”.

During qualitative cross case analysis it strongly emerged that BSC being a holistic management tool tends to measure all management activities including tangible as well as intangible to which existing top leadership may not be used to. The role of management acting as change agent for BSC development is therefore, quite crucial to break this ice by creating a buy in with these senior officers. The task is bit challenging due to two very crucial points: (1) senior leadership do not have much time on their disposal to spare for understanding the detailed intricacies. (2) They are not used to dwell into details and are rather very simplistic in their approach creating a challenge for the manager acting as change agent.

During the qualitative analysis it also emerged that implementation of BSC perspectives demands for a huge cultural change, because it stresses on measuring everything which is done in an organization in order to present a holistic picture for the strategic decision makers so that they are always updated that to
what level they are achieving the expected strategic outcomes, where the organization is going wrong, where to intervene, what intervention is required and how to intervene. Such culture can only be established through conscious efforts of the management.

It emerged in the literature research that so far BSC has seen a success in US and Europe importing the same into a Pakistani culture would have its own implications for the management. And it also remains a fact that general culture of a nation also has an indirect bearing on the culture of an organization. This presents an additional challenge for leaders and managers of defence services while trying to implement BSC.

It insightfully came to light while doing Cross Case analysis that as, the aspect of accountability is inbuilt into the design of BSC; it is feared that senior most leadership of the defense forces may not be willing to subject themselves to such circumstances where their discretion is being constrained/challenged to which they are generally sensitive. However, again this is an implied challenge for the management performing as change sponsor as well as change agent to get willing cooperation by addressing such questions tactfully.

It also emerged during the literature research that stringent requirement of BSC to measure and account all actions of the organization, may also hamper innovation and creativity of individuals which may affect the overall growth of the organization and would arrest initiative of the personnel which at most of the times is of crucial importance for a profession like defense services, where person at the scene of incident is to take decisions right in the face of uncertainties. However, there are strong views on both the accounts i.e. in favor and against. As this concern is yet not mature in the literature neither it falls in the preview of this study, however, this point has been made for the future research if the defense forces actually decide to go ahead with the implementation of BSC in times to come.

7.3 Overall Contribution

This research has made a unique contribution to the international literature on Defense Forces management, as defense forces globally have a similarity of mission, i.e. to help the nation to achieve Grand National strategic aims and objectives. Most fundamentally in the statistical research settings drawn from resource based theory and extensive literature research satisfies all conditions with a desired level of fit to data. This is the confirmation of contribution in all respects.

Basically this study has used Resource Based theory and its causal framework to gain a better understanding of the predictors of Achievement of National Aims and Objectives as result of overall
functioning of Defense Services. Major contribution of study is the conceptual framework which shows
the relationship between four main predictors: *Purpose of Defense Forces, Resources, Enabling
Processes* and *Building for Future* and the *Achievement of National Defence objectives*. And it has made
a prospective contribution to existing theory about defense forces management paradigm. These four
predictors have been proposed as perspective for developing BSC for defense services, which is
prospective addition to existing theoretical body of knowledge about defense services management.
Another important outcome of the careful study of conceptual framework is the emergence of two
important variables: (1) *leadership and Management* as moderating variable, having contingent effect on
above mentioned four predictors (2) *creation of positive synergy* as an intervening variable, which is
temporal in nature and comes into being as function of time i.e. when the four predictors are in action.
The theoretical findings of both quantitative and qualitative analysis have shown positive correlation
between all the four predictors and two moderating and intervening variables, whereas, six of them have
positively predicted the dependent variable confirmed through multiple regression modeling. This
confirms the robustness of conceptual framework and a powerful addition towards setting of ground
framework for putting BSC into practice for Defense Services.

### 7.4 Limitations

This study was undertaken with a specific aim of finding the relevance of BSC as management tool for
the defense services of Pakistan focusing mainly on proposing BSC Perspective as corner stone for the
development of Scorecard at the latter stage. The findings of this study need to be thought through
carefully with certain degree of caution as this being unique empirical attempt of its nature within
Pakistan. However, for other nations or the geographical areas, a various range of factors or exogenous
factors might inherently affect the results. This also invites the future researchers as to how the predictors
of this research can be incorporated in the conceptual models of other management settings. As this study
has been carried out only in the context of Pakistan Defense Services for any generalization of the same
following factors may be kept in mind:

- The findings rely on respondents; self reported cross-sectional data instead of longitudinal data.
  This may not represent a dynamic situation. This cross-sectional data may be affected of
  researcher’s prepositioning especially having a defense forces background.

- As the data has been collected only from the single country Pakistan while it facilitated data
collection as well as controlling diversity, but this at the same time limits generalizing its findings.
• This data has been collected only from the defense forces personnel any application for the corporate or any civilian management has to be well deliberated even within the country.

• There was no female respondent, as in Pakistan defence forces females have not risen yet to the ranks that formed the elements of survey sample. This study, therefore, cannot be generalized for the DFs having female officers serving at par with the ranks forming elements of survey sample.

While acknowledging above limitations, this research confirms the effective vindication of the conceptual framework through both qualitative and quantitative findings. Its useful replication can therefore, be made with little research which should be reflective of that very particular target population.

7.5 Future Research Directions

As this research contemplated the defense forces requirement of a developing country like Pakistan, it may provide some insightful directions for international armed forces research interests. Especially as this research took some new challenges of using new constructs and conceptual framework, which provides a solid foundations for many research avenues and hence several suggestions are made for further research:

• Where this study has brought out that which factors are the predictors of dependent variable i.e. the Achievement of National Defence Objectives and have been recommended as perspectives, at the same time has brought out two important underlying predictors which raise their head at the time of actual operations of BSC perspectives. These are the Leadership/Management qualities and Creation of Management Synergy which have been named as Modifying and Intervening variables respectively. This subject needs further investigation and research.

• As the BSC model as presented by Kaplan and Norton (Kaplan and Norton, 1996) for corporate world has different perspectives, whereas above perspectives dedicated for defense services need validation and vindication of other independent researchers before these are well established in theory.

• Most importantly during the research, leadership and Management emerged as moderating variable having contingent effect on the operations of proposed perspectives of BSC for the defense services. Whereas, there was strong validation of this relationship during this research same phenomenon needs its validation for a private or corporate management, before it becomes an established part of theory. Similarly creation of management synergies emerged as intervening
variable, being a function of time i.e. it comes into being only when the BSC perspectives are in operation. This being most important intangible prime mover has emerged as a strong predictor of National Defence Objectives. Whereas, this researcher has strong convictions for its existence as predictor for all sorts of management settings, however, before it becomes an accepted part of theory for civilian or corporate management further validations are required by the academicians.

- Looking at the discretion conscious senior officers of defense forces and stringent requirements of BSC to hold everything accountable for the purposes of measurement, As, this aspect of accountability is inbuilt into the design of BSC; it is feared that senior leadership of the defense forces may not be willing to subject themselves to such a system where their discretion is being constrained to which they are generally sensitive. This aspect has not been dealt in depth because it does not fall in the scope of this study. It therefore, requires a separate research to explore the repercussions further.

- Certain scholars have also highlighted that stringent requirement of BSC to measure and account all actions of the organization, may also hamper innovation and creativity of individuals which may affect the overall growth of the organization and may arrest initiative of the personnel which most of the times is of crucial importance for a profession like defense services, where person at the scene is to take decisions right in the face of uncertainties. However, there are strong views on both the accounts i.e. in favor and against this concern as this concern is yet not mature in the literature, neither it falls in the preview of this study, therefore, needs further research.

7.6 Conclusion

To answer the basic research questions and achieve research objectives, this study after an extensive literature research developed a conceptual model, Based on sound reasoning embedded in Resource Based Theory. In the light of basic conceptual model, various hypotheses were formulated to confirm the validity of model. To employ the quantitative testing of the model, a cross-sectional data was gathered from target population which consisted of officers of the rank of Colonel and above in all the three armed services of Pakistan. I.e. Army, Navy and Air force. The fitness of conceptual model and confirmation of hypothesis was carried out employing simple and multiple regression modeling using computer based SPSS software. In the wake of quantitative analysis, it emerged that, Purpose of Defense Forces, Resources, Enabling Processes and Building for Future are the predictors of Achievement of National Defence Objectives, which have been proposed as the perspective of BSC on the basis of which the scorecard has to be developed. The quantitative testing also brought to light two other important
predictors of Dependent Variable (Achievement of National Aims and Objectives). i.e. Leadership and Management as Moderating Variable, whereas, Creation of Positive Synergy as Intervening variable which is temporal in nature and is a function of time when the four main predictors (Independent Variables) are in action.

The qualitative testing of the study is also consistent with the quantitative findings, which further vindicates the basic conceptual model. In the light of testing of qualitative data employing cross case analysis, many insightful things came to light most importantly the possible challenges to be faced while adopting BSC as a management tool these have been documented as management implications. Major ones are: (1) demand of organizational Culture Change, (2) Low education background of defense forces personnel as 80% of them come from rural backgrounds,(3) creating a strategic buy in by top leadership.

Being a unique study of its nature it has made useful contribution to the existing body of knowledge about the Defense Forces management, which includes most fundamentally statistical research settings drawn from resource based theory and extensive literature research satisfies all conditions with a desired level of fit to data. This is the confirmation of contribution in all respects. Basically this study has used Resource based theory and its causal framework to gain a better understanding of the predictors of Achievement of National Defence Objectives as result of overall functioning of Defense Services. Major contribution of study is the conceptual framework and its robustness has been well tested both through quantitative as well qualitative testing.

The findings of this study need to be thought through carefully with certain degree of caution while applying it in geographical areas other than Pakistan, as this being unique empirical attempt of its nature within Pakistan. However, for other nations a various range of factors or exogenous factors might inherently affect the results. This also invites the future researchers as to how the predictors of this research can be incorporated in the conceptual models of other management settings.

The BSC model as presented by Kaplan and Norton (Kaplan and Norton, 1996) for corporate world has different perspectives, whereas, BSC perspectives i.e. (Purpose of Defense Forces, Resources, Enabling Processes and Building for Future) explored through this sturdy are dedicated for the defense services of Pakistan. These however, need validation and vindication of other independent researchers before these are well established in theory.