

# A brief outlook of Pakistan's Cellular Operators Competitiveness through Porter's Diamond Framework

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**Abstract**—Firm strategy, structure and rivalry are important determinant which strengthens the competitiveness within nations. In the clusters of industry, every industry/ firm plays on the strategy and structure. The failure of sound strategy and structure may result into collapse or default. The study was carried out to evaluate determining factors which exert influence on competitiveness at world level.

**Keywords**—Firm Strategy, Structure and Rivalry, Co-Existence, Competition and Co-Operation

## I. INTRODUCTION

At the end of twentieth century, an American scientist Michael Porter of Harvard Business School developed a theoretical framework, known as Diamond Framework for the analysis of competitiveness of businesses, trade, industry or projects among the nations (Porter M., 1990). In the Porter framework, ecology of competitive environment for companies has been investigated. The performance of competitors is not limited to its own efforts in silo rather driven by collaborated levels at various elements of competition, presence of supporting industries, role of national and international regulatory environment and market demand.

### *Industry Strong Areas*

1. Leading Player in Technology
2. Financially sound with strong Balance sheet and Cash reserves
3. Well Equipped with Strategic Business plan
4. Diverse Portfolio
5. Corporate Social Responsibilities is in place
6. Bridging the digital divide

### *Industry Weak Areas*

1. Need to invest more in strategy moves
2. Further enhanced dynamic business environment to foresee future growth
3. Need to invest more in R&D Projects
4. Need to achieve excellence in integrated operations

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This study investigates Pakistan's Cellular Operators competitiveness through Porter's Diamond Framework.

## II. LITERATURE REVIEW

Some of the recent studies in cellular operators competitive environment includes; analysis of mobile broadband service penetration in Korea; in this research, economical growth and competitive factors for mobile broadband services has been investigated. (Seonjin S. et al., 2015). Spectrum concentration and market competition, Implications for the use of caps in Mexico; in this study, the authors investigated on spectrum reallocation as a factor of production optimization (Oscar S., 2015),

On the competition among small cell wireless operators with large scale deployments; in this proposed method the authors expounded on self-interest operators group based strategy to maximize revenue for high demand services (Stelios S. & Angeliki A.,2015), Cournot equilibrium in the mobile virtual network operator oriented oligopoly offloading market; in this technique, the authors presented framework for oligopoly based traffic offloading in order to manage increase in demand (Fei S. et al., 2016). Understanding the current operation and future roles of wireless networks: co-existence, competition and co-operation in the unlicensed spectrum bands; in this study, the authors investigated policy matters for sharing of unlicensed spectrum band for high demand services (Fernando B. et al., 2016).

A sharing- and competition-aware framework for cellular network evolution planning; in the proposed framework, authors consider infrastructure and resource sharing for keeping CAPEX and OPEX (Paolo D. et al., 2016). Bidding, pricing, and user subscription dynamics in asymmetric-valued Korean LTE spectrum auction: A hierarchical dynamic game approach in this study, the authors investigated policy matters for sharing and allocation of LTE spectrum band for high demand services among competitors (Sang Y. et al., 2016).

## III. ANALYSIS

The framework is based on four determinants namely 1) factor conditions 2) demand conditions 3) related & supporting industry 4) Firm's strategy, structure & rivalry along with two exogenous factors 1) Government 2) Chance.

The factor condition pertains to overall working environment in a system. Mainly the capital resource, sustainable infrastructure, skilled labor and quality of research & knowledge with applications in the human life make up the better factor conditions. There are two levels of factor conditions; basic & advanced. The developed countries possess advanced factor conditions while developing countries stand at lower side.

The conditions in which buyer/customer proactively participates to fulfill exclusive requirement called the demand conditions. To compete at international level, this theory requires minimum home demand composition with its size and pattern of growth. After attaining such levels, the nations/firms tend to become competent enough to internationalize the idea, research, product or service.

The suburb of supporting industry has been quite helpful in building and maintaining competitive businesses among the nations. This is the reason that all geographically connected regions have grown into economic blocks on the world map such as European Union & ASEAN. These blocks have established very well-linked supplies to corroborate industry as shown in table 1 and figure 1.

## Six elements of diamond framework

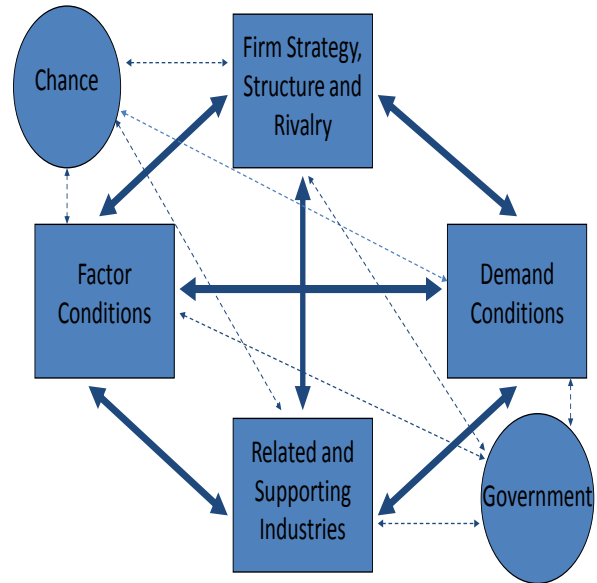


Fig. 1: Six Elements of Diamond Framework

TABLE I:

SIX ELEMENTS OF DIAMOND FRAMEWORK

lements	Descriptions
<b>1. Factor Conditions</b>	Factor condition refers to the type of resources available in the country. It may include the infrastructure, knowledge base, human resources, capital and natural resources.
<b>2. Demand Conditions</b>	Demand condition includes user demand, market size, potential growth in demand and class of demand condition
<b>3. Related and supporting industries</b>	Related and supporting industries are driven force behind competitive environment. It brings efficiency in process and help in cost effective inputs.
<b>4. Firm strategy, structure and rivalry</b>	Firm strategy, structure and rivalry determine the strategic position of the organization in the industry. This element includes how well an organization is aligning its vision, mission to maintain and upgrade competitive edge in intense rivalry.
<b>5. Government</b>	Governmental Institution has an immense role in promoting or hindering the competitive environment. This role is equally crucial with in countries and outside the country.
<b>6. Chance</b>	Besides five above elements chance cannot be ignore. It may refer as fortune for certain companies to gain advantage, while disaster for other companies.

Within a decade telecommunication has emerged into a competitive industry in Pakistan. It faces with saturated market after reaching at density of 76%. Due to the saturation in market mobile operators are striving to introduce innovative products within their allocated spectrum. This market tends to grow in view of huge Chinese investments through CPEC agreements. Following are the main players in the market as shown in Figure 2 (data from PTA website-2015).

Though government and chance are exogenous factors, yet both have shown serious influence on the competitiveness. The government policies create sustainable environment to facilitate demand & supply in the market. The regulatory mechanism devises investor-friendly policies and procedure. On the other hand Chance sometimes brings forth remarkable breakthroughs in the business industry or otherwise due to the disasters or natural calamities as shown in table 2.

TABLE II:  
SIX ELEMENTS OF DIAMOND FRAMEWORK FOR  
PAKISTAN'S CELLULAR INDUSTRY

Elements	Pakistan Telecommunication Industry
<b>7. Factor Conditions</b>	Pakistan's large pool of younger generation, skilled, semi-skilled classes contribute as a large base of human resources for service sector. Pakistan's strategic position in South-Asia. Greater potential to be utilized through CPEC.
<b>8. Demand Conditions</b>	Over a population of 200 million, it is estimated that 100 million customer can have a great potential for current as well as future demands. Customers demand innovative products & low cost solutions.
<b>9. Related and supporting industries</b>	Information, communication technologies, e-commerce and media houses are some of the related and supporting industries. Strong mobile markets with advanced applications.
<b>10. Firm strategy, structure and rivalry</b>	Due to immense competition few players reaping the benefits from a large customer base. Ufone has been losing market share due to the weak firm strategy and structure while Zong has been leading the market after merger with Warid. There is a very tough rivalry in the mobile operators
<b>1. Government</b>	As this sector is a major contributor of GDP, government of Pakistan fosters an environment for healthy competition. The 3G/4G auctioning have revived the Industry yet heavy taxes have reduced the profit margins for the companies. Government's initiatives as regards to bringing Chinese investment are commendable.
<b>2. Chance</b>	Newer trends and apps evolving in ICT domain that bring new avenues for business

#### IV. CONCLUSION

Like standard/competitors, operators should do the following initiatives to further excel in business and industry;

- 1) Streamline business objectives and quality process to achieve sustainability in customer satisfaction, growth and profitability.
- 2) Consider the evolution maturity model in order to harness business process improvements
- 3) Leverage maturity model for its own organizational benefits
- 4) Combating Mishaps and disaster by adopting the spirit of maturity models
- 5) Tapping Talent especially from rural/non-metropolitan area
- 6) Human Resource Capacity Building for ICT related disciplines
- 7) Align business and technology efforts for improved Enterprise Content Management
- 8) Optimizes existing infrastructure for capability building through new projects

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