# Competitiveness and Innovation - A study with reference to different companies at Bengaluru

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**Abstract:**

The term competitiveness is commonly referred in economics and unfortunately there is no generally accepted definition of competitiveness. It is because of wider application in innumerable disciplines. It is becoming a challenge on the part of the both organisations and multi nationals as well as nations as a whole, in improving the relative position of the organisations in terms of competition. Further, the globalisation era has brought new set of challenges for firms, industries and commerce. Successfulness of my organisation, nations warrants new perspectives on competitiveness. Survivality under turbulent conditions increasingly much depended on competitiveness. The importance of competitiveness is driven by changes in time and context (Ajitab Ambastha et al. 2004). In this study impact of assets, performance and process on competitiveness, factors that decide strong policy on competitiveness and factors that influences ability to make innovation are discussed and presented. It is fact finding study where the respondents expressed their opinions.

**Keywords:** Competitiveness, Innovation, determinants, performance, policy, ability.

## 1. Introduction

In the global village the concept competitiveness has gained and continue further to gain significance on account of various benefits. The follow of more liberal economic policies by many nations and consequently privitatization, increasing market economy, financial liberlisation began to be more connected to each other which brought increasing competition in world. On account of emerging of these trends developing and developing nations become more efficient and become severe competitors at international level. All these trends made the economies to accelarate more and more about competitiveness.

The globalised scenario has made many companies of developing nations to feel more about innovative. All field like R&D, software, design, engineering, education, marketing and managements are assuming significant roles in the production of goods and services. The international consciousness of standards by all economies made them to give more importance to innovation and competitiveness. Innovation in developing economies is viewed as the basic concept in addressing social problems like environmental pollution, health, poverty and unemployment. Today the role and importance of innovation have become more significant than economic development (GII, 2015).

Though the concept competitiveness is global popular and the concept has been analysed at different level, still there exist troubles with understanding the concept and its measurement. Further, there exist many drivers of competitiveness with heavy variants in the conclusions about the conept. According to Porter and Rivkin (2012) the wide misunderstanding of the concept of competitiveness has dangerous consequences for political discourse as well as policy and corporate choices that are all also evident today.

## 2. Statement of the problem

Competitiveness is gaining momentum better than the previous years. The country's promotion of productivity growth and improvement of competitiveness needs to take focus on a firm driven nature of those processes. Today's organisations must step out on the market with global strategies on domestic market and international markets. Permanent changes are an integral part of the success and competitiveness since who do not apply innovatives become less competitive and also usually disappear (Porter 2008). Organisations must follow flexible approach and respond rapidly to competitive, innovation, and market changes. To achieve success in the organisation they must determine benchmarks, so that efficiency may be aggressively achieved. Continuous improvement of knowledge of employees, and adopting modern methods and concepts of management and marketing assist in establishing and maintaining competitiveness.

## 3. Objectives of the study:

(1) To analyse impact of assets, performance and process on competitiveness.

(2) To analyse factors driving strong policy on competitiveness.

(3) To analyse factors deciding ability to make innovation.

**Hypotheses**

(1) Assets, process and performances are not influencing competitiveness.

(2) There are no factors driving strong policy on competitiveness.

(3) They are no factors that decide the ability to make innovation.

## 5. Research Design

The research design explains the kind of research methodology undertaken to collect information for the study (Sunday et al. 2016). The research has used both descriptive and analytical type. The earlier was used the intention of describing the state affairs as it exists at present and concentrated on fact finding and the later was performed to analyse the data collected from the sample.

## 6. Sample of the Study

Using the formula suggested by Bill Godden the sample (2014) of the study was decided.

SS = infinite where population is > 50,000

SS = Z2 x (P) x (i-p)/c2

Z = Z valueA (e.g. 1.96 for a confidence level)

P = Percentage of population picking a choice, expressed as decimalB.

C = Confidence interval, expressed as decimal.

(e.g. 0.04 = +/- 4 percentage points)

AZ values (Cumulative Normal Probability Table)

1.645 = 90% Confidence level

1.96 = 95% Confidence level

2.576 = 99% Confidence level

SS = 3.8416 x 0.5 x 0.5 / 0.0016 = 0.9604 / 0.0016

= 600.25 or 600.

### A. Sample Technique

Convenience sampling technique was adopted to collect the required data. The researcher's local knowledge of language helped in addition to other languages, to collect the required data. Sample respondents were convinced about the main objective behind present research.

**Sampling Table**

| Type of respondent | Number | % |
|---|---|---|
| Government & Private employees | 280 | 47 |
| Advocates | 30 | 05 |
| Engineers and other professionals | 100 | 17 |
| College professors | 70 | 12 |
| Businessman | 80 | 13 |
| Self employed | 40 | 06 |
| Total | 600 | 100 |

### B. Sources of data

The study uses both primary and secondary data. The primary data was collected through administering a pretested questionnaire administered as schedules. The reasons behind administering a questionnaire as schedule were, avoiding non-response, and delay and to clarify any technical problems that emerges at the time of collecting primary data.

### C. Design of the questionnaire

The questionnaire was framed for the present purpose is a structured questionnaire in which all the questions are predetermined before conducting the survey. The scale used to evaluate questions are (1) Dichtomous (Yes/no), (2) Statements, (3) Likert 3 and 5 point scale.

### D. Statistical tools and techniques

ANOVA quantitative metric was performed to measure the variation and to interpret the dtaa. Also ANOVA test the data scientifically and therefore it was performed in the study.

## 7. Review of Literature

Bartlett and Ghoshal (1989) emphasised the role of factors internal to the firms such as firms strategy structures, competitiveness, capabilities to innovate and other tangible and intangible sources for their competitive sucess.

Smith (1995) is of the opinion that ability to develop and deploy capabilities and talents for more effectively from competitors can help in achieving world class competitiveness.

Johnson (1992) is of the opinion that for providing customers with greater value and satisfaction than their competitors, firms must be operationally efficient, cost effictive and quality conscious.

Barney et al. (2001) expressed that in today's turbulent business environment, dynamic capabilities, flexibility, agility, speed and adaptability are becoming more important sources of competitiveness.

Hollensen (2010) highlighted that national circumstances creat on environment in which business can gain international competitiveness advantage but it depends on the firm whether it grabs the opportunity to gain competitive advantages or not.

Tusmasz Siudek (2014) stated that further research in competitiveness of nations, regions, sectors, industries and individual enterprses or farms is desirable is it can help to reveal the competitive position of relevant objects and track changes of their performance over time. Further, the author expressed that such information can be useful in the formulation and implementation future competitiveness fostening the policies.

## A. Survey Findings

Table-1 reveals information about impact of assets, performance and process on competitiveness. 350 respondents out of 600 strongly agree the statements impacting the competitiveness followed by 201 agree, 28 neutral and 21 disagree. Out of the 350 respondents who strongly agree, 66 said about performance, 55 about human resources, 54 about infrastructure, 50 about technology, 45 about trade mark and reputation, 42 about technology and 38 about strategic management process. Out of 201 who said agree, 38 said about performance, 30 about human resources 32 about technoogy management process, 28 about infrastructure, 25 about technoogy, 26 about strategic management process, 22 about trade mark and reputation. Out of 28 who stand neutral 7 said about trade mark and reputation, 6 about performance 5 about human resources, 3 each about infrastructure and strategic managment process. Out of 21 who disagree a majority of 6 said

human resources and 5 about performance and 3 about technology management process. ANOVA tool fails to accept H0 and accepts H1. Therefore it is concluded here that there exist significant variation in the data and respondents are aware of impacting factors of competitiveness.

Table-2 highlights information regarding factors influencing strong policy on competitiveness. 305 sample respondents out of 600, strongly agree followed by 200 agree, 26 neutral. 40 disagree and 30 strongly disagree. Out of 305 respondents who said strongly agree 68 and about infrastructure 65 good institutions, 62 about technological readiness and innvoation, 58 about education and training and 52 about macroeconomic stability. Out of 200 who said agree 45 each said about good institutions and education and training, 40 about macroeconomic stability, 38 about technological readiness and innovation and 32 about infrastructure. Out of 25 who stood neutral a majority of 6 each said about good institutions and technological readiness and innovation, 5 about education and training and 4 each about infrastructure and macroeconomic stability. Out of 40 who said disagree, a majority of 12 said about technological readiness, 10 about good institution, 7 about infrastructure, 6 about education and training and 5 about macroeconomic stability. Out of 30 who said strongly disagree, 8 said about technological readiness, 7 about good institution, 6 about education and training, 5 about infrastructure and 4 about macroeconomic stability. ANOVA tool fails to accept H0 and accepts H1. Therefore it is concluded that there exist significant variation in the data and respondents are aware of strong influencing factors of competitiveness.

Table - 3 reveals information about factors deciding ability to make innovation. 360 respondents out of 600 strongly agree followed by 200 agree, 40 some what agree. Out of 360 who said strongly agree, 98 said about factor conditions, 89 about firm strategy, structure and rivalry, 88 about demand conditions and 85 about related and supporting industries. Out of 200 who said agree 58 said about firm strategy, structure and rivalrty, 55 about factor condition, 45 about demand conditions and 42 about related and supporting industries. Out of 40 who said some what agree, 15 said about factor conditions, 9 about demand conditions and 8 each about related and supporting industries, and firm strategy, structure and rivalry. ANOVA fails to accept H0 and accepts H1. Therefore it is concluded that there exist significant variation in the data and respondents are aware of factors that decides ability to make innovation.

## 8. Conclusion

Competitiveness power to a country is its ability to compete relatively to its rivals. Innumerable managements at Bengaluru have realised the value being competitiveness. The sustainability of any company or any organisation is conditioned by the force of competitiveness. It is also important that organisations must design strategies to become innovative technology adopting organisation. Innovation being the basis of development and dynamism in all economies is a determinant of competitiveness. Therefore the organisations search innovative technologies and get success in obtaining competitive advantage. The respondents have shown maturity in appreciating the value of competitiveness and innovativeness.

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**Table-1 : Impact of assets, performance and processes on ceompetitiveness**

| Variables | | SA | A | N | DA | T |
|---|---|---|---|---|---|---|
| A) | Tangible & intangible assets | | | | | |
| | Human resources | 55 | 30 | 5 | 6 | 96 |
| | Infrastructure | 54 | 28 | 3 | 2 | 87 |
| | Technology | 50 | 25 | 2 | 2 | 79 |
| | Trade mark and reputation | 45 | 22 | 7 | 1 | 75 |
| B) | Prcess | | | | | |
| | Strategic Management Process | 38 | 26 | 3 | 2 | 69 |
| | Technology Management Process | 42 | 32 | 2 | 3 | 79 |
| C) | Performance | | | | | |
| | Quality, costs, financial and technological | 66 | 38 | 6 | 5 | 115 |
| | International performance | | | | | |
| | Total | 350 | 201 | 28 | 21 | 600 |

Source: 1) Ajitabh and Momaya (2004)

2) Field Survey

**Hypotheses**

| | | |
|---|---|---|
| H0 | There exists no signifcant variation in the data | Reject |
| H1 | There exists signifcant variation in the data | Reject |

**ANOVA Table**

| Source of variation | SS | df | MS | F-ratio | 5% F-limit (from F table) |
|---|---|---|---|---|---|
| Between the sample | 10588.9931 | (4-1)=3 | 10588.9931/ 3 = 3529.66 | 3529.66/ 178.220 =19.80 | |
| Within the sample | 4276.8487 | (28-4) =24 | 4276.8487/24 = 178.2020 | | (2,15) =3.01 |
| Total | 14865.8418 | (28-1)=27 | | | |

Source: Field Survey

**ANOVA Analysis** : The calculated value being 19.80 higher than the TV = 3.01 @ 5% level of significance with df V1 = 3 and V2 = 24 fails to accept H0 and accepts H1.

**Table-2 : Factors influencing strong policy on competitiveness**

| Variables | SA | A | N | DA | SDA | T |
|---|---|---|---|---|---|---|
| Good institutions | 65 | 45 | 6 | 10 | 7 | 133 |
| Infrastructure | 68 | 32 | 4 | 7 | 5 | 116 |
| Education & trianing | 58 | 45 | 5 | 6 | 6 | 120 |
| Macroeconomic stablity | 52 | 40 | 4 | 5 | 4 | 105 |
| Technological readiness & innovation | 62 | 38 | 6 | 12 | 8 | 126 |
| Total | 305 | 200 | 25 | 40 | 30 | 600 |

Source: 1) Field survey

2) Sherry Stephenson

**Hypotheses**

| | | |
|---|---|---|
| H0 | There exists no signifcant variation in the data | Reject |
| H1 | There exists signifcant variation in the data | Reject |

**ANOVA Table**

| Source of variation | SS | df | MS | F-ratio | 5% F-limit (from F table) |
|---|---|---|---|---|---|
| Between the sample | 12830 | (5-1)=4 | 12830/4 = 3207.5 | 3207.5/16 =200.46 | |
| Within the sample | 320 | (25-5) =20 | 320/20 = 16 | | (4,20) =2.87 |
| Total | 13150 | (25-1)=24 | | | |

Source: Field Survey

**ANOVA Analysis** : The calculated value being 200.46 higher than the TV = 2.87 @ 5% level of significance with df V1 = 4 and V2 = 20 fails to accept H0 and accepts H1.

**Table-3 : Factors deciding ability to make innovation**

| | Drivers of innovation | SA | A | SWA | T |
|---|---|---|---|---|---|
| A) | Factor conditions (HR, Physical resources, info services and capital) | 98 | 55 | 15 | 168 |
| B) | Demand conditions (Nature of internal market demand) | 88 | 45 | 9 | 142 |
| C) | Related and supporting industries Competitive & international level, cost effective inputs | 85 | 42 | 8 | 135 |
| D) | Firm strategy, structue and rivalry Central Competition, establishment of organisation and management | 89 | 58 | 8 | 155 |
| | Total | 360 | 200 | 40 | 600 |

Source: 1) Porter 1990 (a)

2) Field Survey

**Hypotheses**

| | | |
|---|---|---|
| H0 | There exists no signifcant variation in the data | Reject |
| H1 | There exists signifcant variation in the data | Reject |

**ANOVA Table**

| Source of variation | SS | df | MS | F-ratio | 5% F-limit (from F table) |
|---|---|---|---|---|---|
| Between the sample | 12800 | (3-1)=2 | 12800/ 2 = 6400 | 6400/3 =188.23 | |
| Within the sample | 306 | (12-3) =9 | 306/9 = 34 | | (2,9) =4.26 |
| Total | 13006 | (12-1)=11 | | | |

Source: Field Survey

**ANOVA Analysis** : The calculated value being 188.23 higher than the TV = 4.26 @ 5% level of significance with df V1 = 2 and V2 = 12 fails to accept H0 and accepts H1.